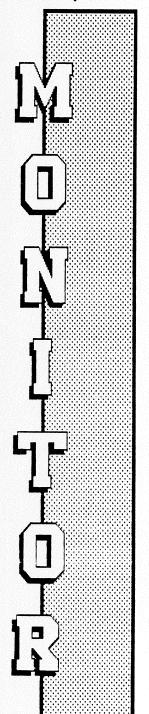
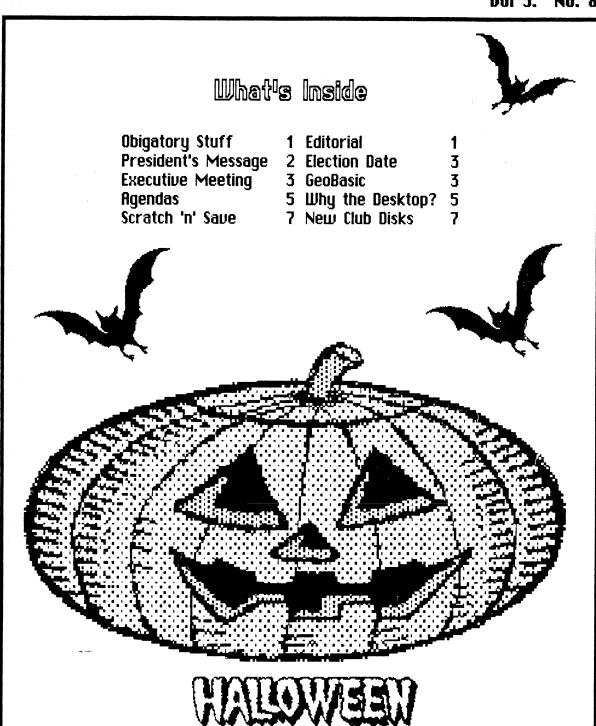


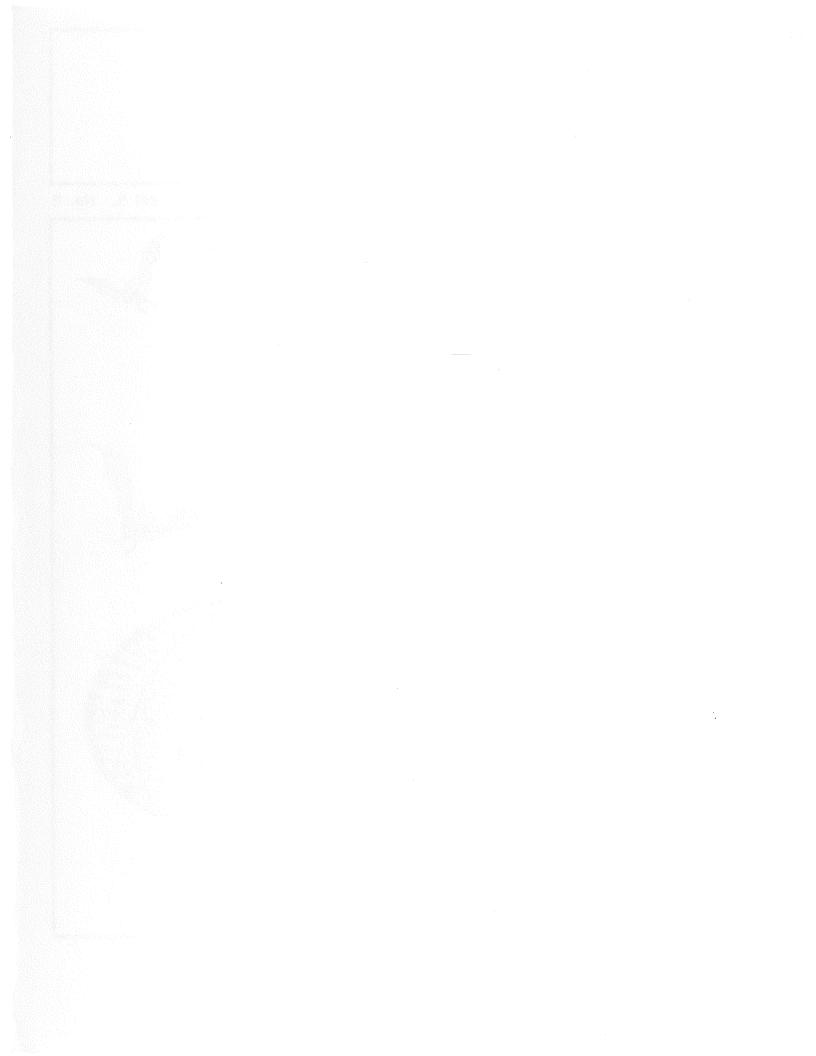
Commodore Users Group of Saskatchewan

October, 1990

Vol 5. No. 8







Obligatory Stuff

CUGS MAILING ADDRESS:

CUGS 143 Birchwood Cres. Regina, Sask. 545 553

CUGS BBS - (306) 586-1189

President	Barry Bircher	359 1925
Uice President	Richard Maze	586 3291
Treasurer	Real Charron	545 7601
Editor	Jarrett Currie	757 2391
Asst Editor	Shaun Hase	584 3371
Librarian	Keith Kasha	359 1748
Asst Librarian	Steve Bogues	949 1370
Members at Large	Ken Danylozuk	545 0644
·	Harry Chong	789 2142
	Earl Brown	543 2068
	Gord Williams	543 0373
	Joe Gomes	789 8174

If you have any questions about CUGS please feel free to contact any of the above executive members.

The **Monitor** is published monthly by the COMMODORE USERS' GROUP OF SASKATCHEWAN (CUGS), Regina, Sask., Canada. CUGS meetings are held at 7 pm the <u>FIRST WEDNESDAY</u> of every month (unless otherwise noted) in the North-West Leisure Centre, corner of Rochdale Boulevard and Arnason Street. Future meeting dates:

November 7, 1990 December 5, 1990

Anyone interested in computing, especially on the C64, 128 or 64C, is welcome to attend any meeting. Out of town members are also welcome, but may be charged a small (\$5.00) mailing fee for newsletters. Members are encouraged to submit <u>public domain</u> software for inclusion in the CUGS DISK LIBRARY. These programs are made available to members. Any member is entitled to purchase DISKS from our public domain library for a nominal fee. Programs are 'freeware', from computer magazines, or the public domain. Individual members are responsible for deleting any program that he/she is not entitled to by law (you must be the owner of the magazine in which a particular program was printed). To the best of our knowledge, all such programs are identified in their listings. Please let us know if you find otherwise. Contact our club Librarian, Keith Kasha.

CUGS is a non-profit organization comprised of C64, 64C, C128, and 128D users interested in sharing ideas, programs, knowledge, problems and solutions with each other. The more members participate, the better the variety of benefits. Membership dues are pro-rated, based on a January to December year.

Editorial

by Jarrett Currie

Previously in the **Monitor**, I have, along with many others, expressed my concern over the longevity of the Commodore 64 and 128. While it's easy to reflect negatively at the future of 8-bit computing, I figured it was time to take a more positive look at what's available for our machines. After having done so, I am convinced that I still own a most exciting and productive computer.

The most interesting software package to hit the market - probably at any time in Commodore's history - is GeoBasic. Although I am decidedly biased towards GEOS as the best productivity tool for Commodore computers, anyone who has had interest in GEOS will find GeoBasic a wonderful tool to create custom-made applications - that function exactly as you choose. No more will you have to rely on public domain and commercial products to satisfy your computing needs, but rather you will be able to write GEOS compatible applications that respond to the way you do computing. And, it's even fun enough that for those of you who need to brush up on your BASIC skills, GeoBasic may be the motivation to do just that. Look elsewhere in the Monitor for a description of what GeoBasic offers.

The demise of RUN hasn't happened yet; I just picked up the newest issue of this magazine a couple of days ago. Although RUN has apparently reduced the number of pages it once sported - especially considering the merger with the Commodore magazine - it is still an interesting read for Commodore enthusiasts. The editor of the magazine expresses promise to continue supporting our computers as long as there is interest.

Some of you were a little troubled over the takeover of Compute!'s Gazette, a concern I shared. But, the second magazine I picked up this month was the glossy, new Compute. The new Compute combines coverage of several machines, from MS-DOS to Commodore, and devotes sections of the magazine to each type. I must admit that I have never subscribed to a magazine before, but the new Compute certainly makes me wonder why not. The section devoted to the Commodore 64/128, as expected, isn't as large as the Gazette once was, but one of the benefits of the new magazine is that it is easier to keep abreast of what's happening with other computers - an interest I have always had.

As the commercial interest in Commodore machines continue to wane, we will increasingly need to rely on shareware authors to provide us with new software. I have recently received Mathew Desmond's latest version of DesTerm, a terminal program for the Commodore 128. If this is the quality of programming we can begin to

expect from shareware authors, the Commodore 64 and 128 will become immortal! This top-of-the-line package gives the C128 user as much, if not more, power in telecommunications than is currently available in the commercial arena. And, it was released this year - quite an accomplishment for a dying computer.

Lastly, we must not take for granted what we already have: QLink is doing very well, and continues to be busy in the Commodore areas. And, for the gamers, new software titles are still being produced, and I have no doubt, will continue to rival even Nintendo.

While the distant future of our machines may look bleak, taking a good look at what we already have makes me convinced that I will be using my Commodore for a long time to come.

President's Message by Barry Bircher

Our computer club is one of the better ones around this city. I may appear a little biased, but then, I am trying to look at it with an open mind. The club as a whole is doing very well. I can see nothing that will suddenly stop the club from growing as long as users "USE" the club. The computer we all use and love is no doubt on it's last commercial legs. The computer has been around now for over 8 years and has a strong broad base of users. The manufacturers have stopped the production of the "flat" 128 and the 128D. These are mighty fine computers in there own right. The 64 is still in production but for how long is anybody's guess. But until then, it is STILL being sold. As these machines get on in age, they are not getting older.... they are getting BETTER.

Eventually, even the mighty legendary C= 64 will soon be halted as far as production goes, but their usefulness and users will still be there for many years to come. Other computers have come and gone in less than a couple of years and people have quickly forgotten them. I strongly believe that the 64/128 will be a definite change in this pattern. There are over 10 MILLION 64/128's out there, not just a few forgetable hundred's. There are just too many units out there for it to die a quick death. It will take several more years AFTER ceasing production before this machine will be allowed to die. This is where one function of C.U.G.S. comes into play. Our club is here to serve and be served by it's members. We are a resource of programs for your machine. The more programs and users we can collect from the world the more you will benefit. We are in high gear right now in getting more programs to add to our library.

The more you get out of it, conversely, the more you should also put back into it in then form of submitting P/D programs, a review for the **Monitor** of the game you just bought, or perhaps serving and helping out on the executive for a term or two. Or at the very least, come to the regular monthly meetings. The club needs you, the member, for it to stay alive.

November is C.U.G.S. election night. As such, you are all invited to become more involved in the club's activities. All positions have openings and are open to you, the volunteer. All you need to do is allow your name to stand in a position you think you would be good at. If you think you want to get more involved just let Earl Brown know as he is looking after all nominations.

October 2, 1990 marks the end of the C.U.G.S. BBS, due to the expense of supporting the BBS for the few who do use it. I and several others have found that the BBS was very convenient to use when an article was to be submitted for the **Monitor**. It is nice to be able to just call up and upload the file to the board for Jarrett to download for the **Monitor**. We also found that it was a good area for most BBS'ers to touch base with each other. But due to a lack of members use on the BBS it was decided to cease it's existence.

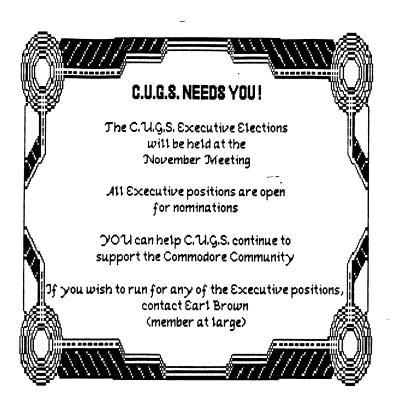
However, Excalibur BBS has volunteered its flexible message and file areas to C.U.G.S. Yves (pronounced Eves). the Sustem Operator has been in the BBS community for over 3 years now. The new file and message areas are now set up and ready for use. There is one message area for all C.U.G.S. members. There is also a dedicated upload/download area for the members' use as well. This area can be used to upload your articles you always wanted to write. Or, it can be used to store programs you may have come across and want others to share or to just add to the club's library. It is for the members only and no other user can get it. If you want the programs or files available to all, then you can just upload it to the many file areas available to the general public. It is to your advantage to use these areas and now that it is on a public board, maybe more people will know about it.

Excalibur

The number is 949-8605 8 bits, No parity, 1 stop bit

Supports 300/1200/2400 baud rates Supports Commodore Color Graphics and ASCII

Starting soon, we will be advertising C.U.G.S. meetings in the Leader Post, so watch out for it. Tell your friends, neighbours, and relatives that C.U.G.S. is here for them.



Executive Meeting

September 10, 1990 by Real Charron Secretary/Treasurer

- The Librarian's postal code needs to be in the Monitor and Disk Catalogue.
- C.U.G.S. BBS will be discontinued on October 3, 1990.
- Gord will put a club ad in the Leader Post want ads for 7 days (Sept 26 to Oct 2 incl.)
- Real to look after the application of the hall rental for the period of January to June.
- Real to purchase a power bar in time for the November meeting.
- The December meeting will have an attendance draw and the **Monitor** contribution draw.

GeoBasic by Jarrett Currie

GeoBasic has finally hit the markets, and for anyone who has some familiarity with BASIC and loves GEOS, this is **the** product to own.

GeoBasic runs just like any other GEOS application. You run GeoBasic just like GeoWrite – double click on its icon, or select the icon and open it from the main menu. And it feels just like a GEOS application, too. The mouse is available for pointing, and there are pull-down menus for selecting commands.

Some may be wondering what the difference would be between GeoBasic and its closest rival, BeckerBasic. I have both, and although I don't intend to compare the two software packages here, I would just like to comment that GeoBasic easily integrates with GEOS, whereas the union between BeckerBasic and GEOS is difficult and cumbersome. BeckerBasic is a great product in its own right, but for using with GEOS, you would be better off with GeoBasic.

GeoBasic supports two independent screens: a text screen for writing the BASIC source code, and a hi-res, GEOS screen. You can flip back and forth between the two with a simple keystroke. Even though the program is written with the text screen, you can execute any desk accessory while writing your code - the screen will switch to a GEOS screen while the desk accessory executes, and then return you to the text screen. Also supported are 5 different editors, as explained below. Each of these editors can be selected from a pull-down menu, and each are executed using the familiar intuitive GEOS interface.

Due to the memory constraints of the Commodore machines, GeoBasic makes extensive use of automatic program overlays. While this allows for program code to exceed 100k (!), it also means that running GeoBasic from a floppy system can be tediously slow. But, those of us with RAM expanders can enjoy lightning-fast operation. One word of note, though: the program code can be 100+k, but the variable space needed is selected from a pull-down menu - with a maximum of 8k available. This may limit some applications.

The source code is written with a new text editor that is very similar to the standard Commodore one we are all familiar with. There are some notable exceptions, thankfully. For example, the length of each line can now be up to 240 characters, or 6 lines of text. Further, a line may now contain only a blank, and it recognizes blanks as leading characters for a line. So, goodbye colons! Nicely structured programs can now look that way.

There is a special insert mode, similar to the <ESC>-A sequence that C128 owners enjoy; once the insert mode is selected, it remains in effect until <SHFT>-INST is struck again. Variable names are recognized up to 3 characters, and because BASIC commands are automatically capitalized and variable names are case sensitive, variable names such as "fornext" are acceptable. Also, line labels of up to 6 characters are supported, although they add their share of frustration. More of this later.

GeoBasic is advertized as having over 100 commands. While this must be true, most of those are the BASIC commands already supported by BASIC. Added, though, are structured commands such as WHILE/LOOP, and REPEAT/UNTIL. The disk commands available are centered almost exclusively around YLIR files – sequential files can be read, but due to a documented error in the manual, they cannot be created. This should not pose much of a problem with GeoBasic due to the superior nature of YLIR files, however, for applications requiring creation of sequential files, GeoBasic cannot be used.

The GEOS-specific commands are the most interesting additions, and a few of them are listed below:

BUTTON - after executing the command, all presses of the mouse button will execute the line number following the command. Thus, BUTTON 10 will ensure that line 10 is executed each time the button is pressed. This is especially useful for selecting parts of the screen that contain no icons, such as from lists.

DIALOG - this command will throw up a predefined dialogue box and will return to various parts of the BASIC program depending on what was selected from the box.

REDRAW - desk accessories can be selected from the BASIC program, but if the desk accessory does not restore the screen properly, this command will redirect GEOS to a subroutine that will redraw the screen.

DBSTRN - with this one command, a dialogue box is draw with a prompt and a place for the user to enter a response. This is simpler than the standard INPUT command.

PROCESS - probably the most interesting command of all, PROCESS will set up interrupt routines to execute up to 8 named subroutines after a certain number of jiffies.

Of course included are expected commands for setting patterns, colors, drawing boxes and frames.

The editors that are included with GeoBasic are amazingly simple to execute: they all appear in a pull-down menu from the program text screen. Each are extremely simple to use; you can get a pull-down menu defined in less than

5 minutes, for example. I have listed each of the editors below:

Menu - if anyone has ever tried to create a menu in BeckerBasic, you probably have given up in frustration. GeoBasic actually draws the menu as you create it - and you don't have to know the exact coordinates for each character to do so. You simply enter the text that belongs in each menu, and what subroutine should be branched to when that option is selected, and voila, the menu is created. To use the menu in your program, what could be easier than the command "MENU menuname?"

Bitmap - a bitmap is simply a picture that can be used to decorate the screen, or it can be used to represent an icon. The editor is like the sprite editors available in the club's library, with the exception that the bitmap can have the dimensions of up to 42×48 pixels. Luckily, photoscraps can be pasted into the editor.

Dialog - if elaborate dialogue boxes are required, the dialogue editor can be used. In your new box, you can include up to 8 different objects such as: built-in icons, fixed text, variable text, or user icons that were designed with the bitmap editor. The command to put up the dialogue box is simple: DIALOG string, variable (for output and input strings, as appropriate).

Icon - this editor actually creates a list of icons that will be displayed on the screen at one time. You enter the placement of each icon, and what subroutine should be executed if selected. The bitmap editor is used to create the icons, and the command to use the list is simple: ICON iconlistname

Sprite - this is probably the most full-featured sprite editor I have ever seen. Apart from allowing you to create the sprite, it also allows for sprite movement, and sprite animation. You may enter the POSITION of the sprite when it is first displayed, the YELOCITY of the sprite if it is to move, the TIMEOUT period for when the program is to resume after displaying the sprite, and the TRAIL or direction the sprite will move. As you are designing sprite animation, the entire animation sequence is actually displayed as you edit it. What could be simpler?

If my description of GeoBasic amazes you, you may be a little disappointed to know that there are a few bugs. As a QLink member, I have been in contact with other GeoBasic users who share the same problems with GeoBasic. But, unlike other software packages, there are GeoBasic representatives responding to the problems and questions that users leave on the message boards on QLink. The following list represents some of the problems — each of these are being looked into by the representatives.

GEOS

GEOS

GEOS

GEOS

GEOS

GEOS

GEOS

GEOS

- The most annoying problem is that periodically GeoBasic loses some of the program code. As yet there is no way to determine when this will occur.
- 2. If a sprite is on the screen, and the DBFILE command is used, the sprite will act erratically.
- 3. GeoBasic cannot create sequential files (this "bug" is mentioned in the manual.)
- 4. While not a bug, it is certainly a limitation that GeoBasic cannot, as yet, chain programs.
- 5. While warning is made in the manual, incorrectly deleting lines with labels may cause erratic syntax errors. Unlike other lines, a line with a label cannot be changed by simply typing over it it must be deleted first before proceeding.

Even with these bugs, GeoBasic is a joy. Any GEOS lover who has an interest in creating their own programs will benefit from having it. And, I am sure that with the interest shown on QLink, the bugs will be exterminated before long.

Looking Ahead

SE October SE CLUB ARCADE GAMES DEMO NIGHT

Presentations: Steve -- 64 Disks 1 to 3 Keith -- 64 disks 10 to 18 Shaun -- 128 disks

A special games disk will be available

#30 gift certificate donated by THE DUNGANS

November
ELECTIONS & SOFTWARE PREVIEW NIGHT

Positions Available:

President

Secretary/Treasurer
Librarian C128
Librarian C64
Editor

Member at Large (3)

#30 gift certificate donated by THE DUNGANS



Why the Desktop?

by Barry Bircher

This is the second part in an ongoing series of articles on GEOS. In this article, I will continue with my discussion of the Desktop.

GEOS is the work and pet project for a company called Berkeley Softworks in Berkeley California. They worked on a new operating system for the 64 so that it would be "easy to use". They wanted to take the computer's Operating System and DOS (scary for the beginner) and change it to make it appear like something humans use in everyday life and not so abstract, unhuman, metallic and unforgiving. They designed it so that a person can do routine, everyday housework, managing files on the disk and in memory, by just "pointing and clicking", using only a joystick or mouse.

It forces the computer to communicate to a person using a desktop metaphor. So, instead of cryptic alphanumeric text characters to issue commands to a computer, we simply point to an object/picture metaphor on the screen and press the fire button. What options we have are represented on the screen by numerous little pictures called icons. And by choosing which picture most closely represents what we want to do, we can tell the computer what we want done.

Since the introduction of GEOS to the Commodore community, it has evolved into a rather fine Operating System. The first version appropriately called GEOS version 1.0 was bug ridden and crashed alot. It wasn't all that user friendly. Yersion 1.1 had a few bugs fixed, but it seemed that more cropped up. Yersion 1.2 got very wide recognition and it was this version that most older veteran users recognize and were introduced to. It was relatively bug free but had a few un-user-friendly

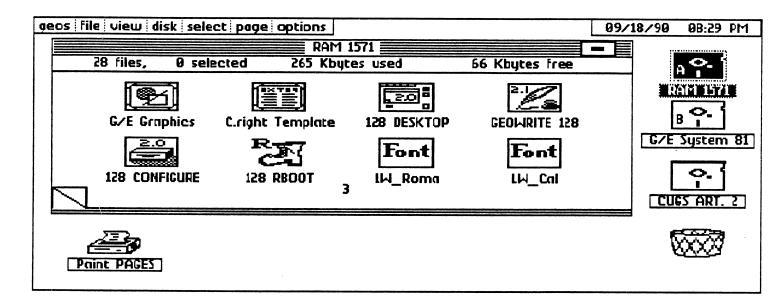
problems and still needed some tweeking up. Yersion 1.3 was practically bug free. It is this version that was widely distributed along with all NEW Commodore computers, free of charge.

When Berkeley Softworks saw how well everyone liked GEOS 64, they turned their efforts towards the 128. There was a version for the 128 that made use of all of the 128's features like the 1571, 80 columns, double speed, etc. This was called GEOS 128 version 1.4. Just remember that this is in no way an upgrade to the 64 GEOS V1.3. They are NOT interchangeable. Version 1.3 is for the 64 and 1.4 is for the 128.

About a year ago, sometime in the spring of 1989, GEOS version 2 was born. This version was vastly improved over the predecessors in that alot of NEW features were

would on a normal desktop. That is, on the lower right hand side you will see an icon that looks like a garbage can. Normally in a real life situation, you would throw things into this can if you no longer wanted or needed it. So it is with the desktop: if you no longer want a file on the disk, then "just throw it in the trash can" and be done with it.

From the desktop you are able to run just about any program on your disk including some non-GEOS programs. You may choose to see the disk files as "ICONS" (pretty little pictures) or by size, date, alphabetic names, type or application. If we were to move the pointer over an icon and press the fire button once, we will find that the icon changes color. Press the fire button again and a "ghost icon" attaches itself to the pointer. Now, wherever the pointer goes, so does a copy of the little icon.



added to improve the downfalls of version 1.3. Version 2 added quite a number of nice user requested improvements, like a multi-file copy, 1581 support, easier clock settings, etc. To note all of the differences is out of the scope of this article. Just let me summarize it by saying this: version 1.0, 1.1 are history, not many people got them, but if you do, keep it only for nostalgia. Version 1.2 can be upgraded to 1.3 by a program in our library free of charge. It is my understanding that it only works on original factory made disks and is useless on duplicated or pirated copies.

When GEOS first loads up (boots), you are automatically placed in a GEOS program application called "DESKTOP". This is another metaphor that is to resemble that of a regular desk. The desktop is....well, a desktop. It is basically a graphic representation of a physical desk. On a desk you have a flat surface that you can work on and move things around. On it you will find things that you

If we were to move this pointer and icon combination so that they are positioned over another icon that looked like a typewriter or a printer and again pressed the fire button, we would end up with a hardcopy of the document. Or, if we moved the icon over the trash can, we would get rid if it. Or, we could move this combo over another icon that looked like a 5 1/4" diskette, and pressing the fire button, we would produce a copy of that file onto another disk.

One or two major differences between versions 1.3 and 2 of the desktop is the file handling. In the older versions, you were stuck with either copying the whole disk or copying one file at a time. If you wanted to copy 56 icons (files) of the 123 on a disk, you either copied the whole disk and trashed the unwanted files or sit there and copy one file at a time (very slow). In the new version 2.0 you can select all of the files you want copied and then go grab a coffee or coke while it is doing it. Maybe it's not

faster, but you don't have to be there at all time. Also, if you wanted to switch or rearrange files, you can do so easily. If you want to insert a page of icons in between two others, you can do so much more easily then before. Yersion 2 has a clock in the upper right hand side that is easily set. When set, GEOS automatically time stamps all files it creates or saves.

In GEOS, we can see what the icon represents, we can pick it up as if it were a physical thing and produce an actual printed document or copy it to another disk, all without typing or even touching the keyboard. To view your letter to Mom, all you do is double click (pressing the fire button twice) on the letter to Mom icon or file name and several seconds later (in 3 seconds with the REU if you have one) the desktop has loaded GeoWrite word processor complete with the file you selected ready for editing, or printing.

The same goes for the drawings you made in GeoPaint. Just double click on the file icon you want to work on and the desktop takes it from there to display your drawing.

Next month I will continue with my discussion on the GEOS Desktop.

Scratch 'n' Save - 128 Library

by Earl Brown

Before I mention the three disks I've included in this month's meeting for your perusal, I'd like to remind you that next month is election month. The first part of the meeting will attend to this annual event. Again this year, we are losing two or three of the executives. It is important that we find amongst us some members who are willing to contact me and place their names into contention for an executive position. We invite anubodu. Whether you are a died-in-the-wool computer user or just a brand new owner, the invitation still stands. Although some of the positions require more time than others, there is neither expertise nor experience required in practically all of the positions. You learn as you go. This is a special invite for new members who may eventually come up with new ideas, new problems, and new approaches to some of the functions and duties of the club as a whole. In conclusion it would be nice if I could see at least one or more of the positions contested. Barring that, may we at least have enough members running to fill all of the positions? Please submit your name to me sometime at this evening's meeting or phone me (543-2068) before our next meeting on November 7th.

Included in this month's disk listings is a RUN disk including all the published program listings from May and June-July 1990 issues of RUN Magazine. If you purchase this magazine, you won't have to type them into your computer. The job has already been done for you. If you neglected to obtain both magazines mentioned, simply erase the programs you are not entitled to. This, of course, applies to all magazine programs you find from time to time in our club library. And don't forget as well, if you are willing to wait, these programs eventually wind up in our categorized disk library.

There are two new 128 disks included in the disk listing this month. They are CUGS 128 COMMUNICATIONS 6 (#OF) and CUGS 128 COMMUNICATIONS 7 (#OG). The #6 disk contains an 80-column file reader, an 80-column ASCII editor that is quite useful for board users that use, for example, IBM compatible boards as well as Commodore boards with their Commodore computer, and 3 80-column terminal programs. All these programs, but one, can be loaded from the "CUGS loader" program included on the disk. The one program that will not load properly using the loader program is called "microvt128.v1.8". It is best to cold start your computer and run"microvt128.v1.8" <RETURN>. And as for communication programs, read the documentation first. The #7 disk is a two-sided disk (you must reverse the disk) that contains all the operating files and all the documentation files for DESTERM 2.00. This is a full-fledged 80 column "pull-down-menu" SHAREWARE program that can employ a joystick or a mouse in its operation. This program can do many, many things. If you print the documentation to paper, it requires in excess of seventy pages. Not to be scared though, as the program initially is really easy to use if you are familiar with basic terminal programs.

	N	ew	Club	Disks

or en oute wiene						
CUES MA/JN/JY 98 #RUN run copy/128 parser dodge 'em 128 colors bull's-eye editor swap/128 new cksum	128 COMM 6 file reader/3.8 asciledit xp128.run pro128term v16.1 k term/128 microvt128.v1.8	#OF				
	128 COMM 7 desterm 2.00 documentation	#06				
	SIDE TIMO documentation					

BBS List for Regina, Saskatchewan, Area Code 306, For September 1990.

Name of System	Phone #	Baud	BBS Program Used	Sysop's Name	Code
=======================================	========	=====		22222222222222	======
Aladin's Cave	789-9800		Wildent v1.03		ŀ
Bar Boom BBS	584-7145	2400	DeusCBCS v0.2a	Rod Snaith	1
BiblioTECH	757-9248	2400	RemoteAccess v0.04	Ron Trenker	1
Billionaire's Boys Club	586-9571	2400	Wildcat! v2.03B	Jason Howorko	1,G,\$
Bit Bucket	352-3236	2400	Fido v12h	Bart Ritchie	I,E
Datapae 300	565-0111	300	Westbridge	none	S
Datapae 1200	565-0181	1200	Westbridg e	none	S
Datapae 2400	565-6000	2400	Westbridge	none	S
	1-995-3333	2400	SaskTel	none	S,3
Dead Poet's Society	522-4834	2400	Remote Access v?	James Hendy	1
Diddly Squat	586-4136	1200	Remote Access v?	•	1
Double Check	525-0807	2400	Paragon v2.07	Randy Coghill	Z,E
Double Q Access	584-2916	1200	Bruce 9000	Robert Patterson	I.G
Exealibur	949-8605	2400	EBBS Ver. 4.6	Yves Desjardins	Ċ
Earnie's Bathtub	586-3887	1200	EBBS v 4.5		c
Fernando's Retreat	585-0298	9600	Opus v1.12	Colin Campbell	I,G,E
FriNgE.	543-7935	2400	Minibaud v 5.0	John Alexander	A.\$
Ganshirt-at-home	777-5370	1200	Fido v12h	Ken Ganshirt	I.G
Gif Heaven	545-6791	2400	RemoteAccess v0.04		1,1
Girk Dently's Holistic	789-9909	2400	Fido v12s	Richard Wolbaum	i -
Glass Box	584-5485		RemoteAccess v0.04	David Roll	i
High Energy BBS	585-1917	2400	RemoteAccess v0.03	Neal Moyse	1,2
Lab, The	525-8620	2400	RemoteAccess v0.04	Yong Lim	I.G.E
Midnight Oil	545-7597	1200	CommLinkBBS v0.87	Jim McGowan	Ž
Micro City I	584-0747		MCBBS	Ron Ware	Ğ
Micro City II	584-0748		MCBBS	Ron Ware	Ğ
Missing Link, The	522-4001	9600	GT Power 15.01	Stephen Crawford	Ğ
Mission Impossible	569-9705	1200	Home Made	Kevin Hoffman	c.c
Mystical Realms	781-2430	2400	RemoteAccess UB.04	Darin Kulman	L
Polestar	586-1551	9600	RemoteAccess U0.04	Bryce Eckstein	i
Pool Hall, The	586-8490		PC Board v15	Roger Linka	i.G
Pool Hall, The	586-0922	9600	PC Board v14		ï
Ratt III	949-6105		BBS Express	Larry Sutton	Ť
Regina FIDO	777-4493		Fido v12.19	Ken Ganshirt	I,E
Shadowland	789-8989	14400	Home Made	Bob Hamilton	I,E
Speed Zone	757-5519	1200	Remote Access	John Carrizo	í
Star Traders Inc.	545-0259	2400	Opus v1.12	Robert Gunther	i.G
Tee Wun Kay	779-1237	2400	Opus v1.12	Garry Ehman	i
TTL Computer Concepts			Opus v1.13	Bjorn Meyer	i
Turbo BBS	949-8880		Turbo BBS v1.5	Jim Nickel	i
U of R 2400	585-5216	2400	Deckserver Cluster	none	5,\$
Unibase 1200	789-0709		Unix	Leigh Calnek	5
Unibase 2400		2400	Unix	Leigh Calnek	Š
I .					

S-Commerical System Z-Amiga
G-Games (on-line) I-IBM C-Commodore
T-Atari A-Apple E-Echomail \$-7-E-1 settings
1-Limited Hours (02:00 - 18:00) 2-Irregular Hours
3-Datareach is local from every phone in Saskatchewan

ALL BULLETIN BOARDS run at 8,N,1 modem settings unless otherwise stated.