

the MONITOR

January, 1991

Commodore Users Group of Saskatchewan

Vol. 7, No. 1

Obligatory Stuff

CUGS

182 Coldwell Road, Regina, Sask. S4R 4K8
BBS Number: 543-7683

President	Barry Bircher	543 8840
Vice President	Ross Parker	565 8980
Secretary/Treasurer	Dave Coleman	949 8270
Editor	Jarrett Currie	757 2391
Asst Editor	Jim Slough	586 8397
Librarian C128	Ken Danylczuk	545 8644
Librarian C64	Keith Kasha	359 1748
Asst Librarians	Earl Brown	543 2868
	Garth Strawford	924 1402
Members at Large	Real Charron	586 1843
	Harry Chong	789 2142
	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. CUGS meetings are held the FIRST WEDNESDAY of every month (unless otherwise noted) at Miller High School. The next meeting will be held: **February 5, 1992 from 7:30 - 9:30 p.m.**

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. Membership dues are pro-rated, based on a January to December year.

Anyone interested in computing 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 public domain 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.

General Meeting Agenda

Presentation
Modems & BBSs
by
Garth Strawford

Door Prize
FREE CUGS Membership

EDITORIAL

by
Jarrett Currie

Happy New Year!

Just to start the new year on the right foot, I should mention that there are now 3 different formats of the disk catalogue. Each member, including those of you who recently joined CUGS, should have a copy of the 1990-1991 catalogue. This catalogue contains all the disks that the club has for sale up to September of 1991. I incorrectly produced another catalogue containing all the disks, including those following September. However, only 10 copies of that catalogue were published, so if you wonder why you don't have one, don't fear - no one should have received it. The third catalogue is one that contains only those new disks that were placed in the disk library since September. For members that have renewed their membership since September, this is the catalogue you should receive. New members will receive both the oldest catalogue and the newest one.

As is tradition in the newsletter editing business, January marks the month when the editor's eyes swell with tears and begs for new submissions for the following months, and after 3 years of doing the Monitor, I have lost all dignity and am pleading for new articles. Many of us in the club have had several years of experience in Commodore computing, and most of us have had very different interests. I know that our now gone Assistant Editor, Shaun Hase, enjoyed graphics, and he submitted several articles

PRESIDENT'S MESSAGE

and short programs to show how powerful Commodore graphics could be. Our president, Barry Bircher, has written several articles on the technical aspect of telecommunicating and using GEOS (for which he was richly rewarded by winning last year's Monitor prize). And, although I have never seen an article to prove it, I know through conversations with him that Ken Danylczuk, our 128 Librarian, is a disk drive whiz, and a SID virtuoso. I know, too, that there are several other experts in our midst who could easily write articles about some form of computing that would interest others to become more involved in using their Commodore. All of this would continue to make the Monitor an integral part of CUGS.

But, to start it off, I have a suggestion: if you would like to make a presentation at one of the meetings, why not write a couple of paragraphs about your topic, and submit them to the Monitor? I know that there are some people who were unable to attend some of the meetings, but who would have liked to have the information presented. We also have members who live out of town, and rely on the Monitor as their only form of club news. I am sure these people would be grateful to receive the extra information that these types of articles would provide. As well, I know many of us save each month's Monitor, and writing a short articles about the presentation would serve as a great reference.

Some of you new members may not be fully aware that the club operates a Bulletin Board system, 24 hours a day. Barry Bircher has volunteered his time to be the Sysop (for which all members should give a hearty thank-you), and can be contacted on the Board if you have any questions. The BBS's number is: 543-7683. It offers a wide selection of software titles, and many different areas where you may leave messages. If you have a computing question, leave it on one of the message boards, and see if you don't get an answer!

Have a wonderful New Year. I look forward to seeing your submissions.

Merry belated Christmas and a Happy prosperous New Year. Hope your Christmas was a happy one and Santa had you on his good little boy or girl list. Hope your New Years wing ding went without a ding.

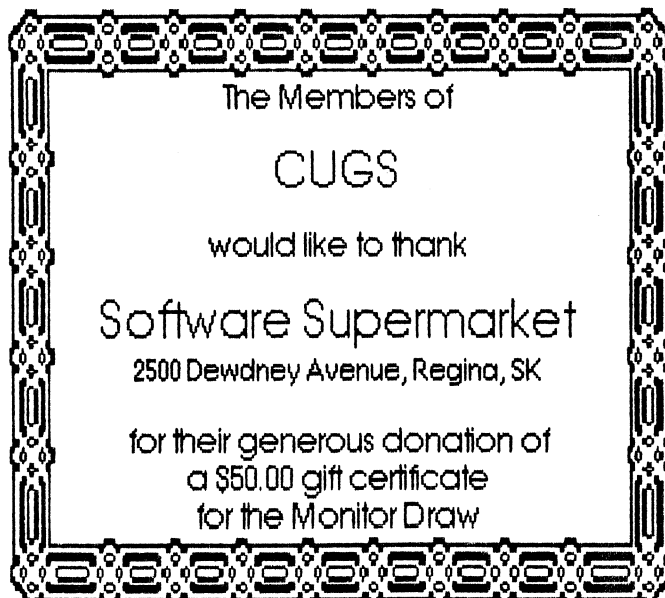
It's hard to believe another month has gone by and already another CUGS meeting is upon us. It seems I'm always behind doing things so it comes as no surprise that my New Years resolution is to try and get things done ahead of time. But like most resolutions, it's starting off on the wrong foot.

Shopping at this time of year is rather interesting and tiresome to say the least. There are sales of 50% or more at all the stores before and after Christmas. It sometimes pays to be a last minute shopper. The shoppers are something else: wall to wall people all pushing and shoving, all trying to get the same thing. The one thing that really bugs me is those flyers that flood your house for those weeks in December. Why is it that when you finally DO get down to read them and see what is on sale, you find something, you fight all the traffic, weather, and people to get there, only to find the store has either sold out of them or didn't even get those items in stock? ARGH! It has happened on several occasions. Twice I read a flyer that just came out and the sale was to start the next day. I saw some stuff in it that I needed, so I trotted off to the store the very next morning before noon and... You guessed it, they were sold out. Why bother to spend the money, time and paper to advertise and not even bother checking to see if there is enough stock to last at least the first day, let alone 3 hours? Oh well, 'tis the season.

On behalf of the members of CUGS, I would like to thank Software Supermarket (2500 Dewdney Avenue, Regina) for the Monitor's frequent writers draw prize of \$50.00. When I looked at the software shelf at Software Supermarket (this goes for any store, for that matter) there really was not that much new software for a seasoned Commodore user. A new user could have found a few things there, but I either already had it or didn't want it. So I couldn't use the \$50.00 on software. But I could on hardware. The certificate was used to purchase a 2400 Baud SupraModem.

Talking about modems, this months meeting will see Garth doing a presentation on modems and BBS's. There should be some information in it that you didn't know before, so it will be a good presentation. For February's presentation, I will be doing a presentation on a program called Crossword Creator. It is a neat 64 program that creates a crossword matrix from words and clues you feed into it. Seeing it run is kinda neat as it tries different layouts for all the words it has to fit into the puzzle.

Well, hope you enjoy the meeting and hope you find some interesting programs and information for your 64/128 in the coming year.



A *Q*link TUTORIAL

DISPLAY KOALA/DOODLE GRAPHICS by Fuzzy Fox

I can't remember how many times people have asked me this, so I'm going to post this publicly, for all to see.

I present here an example Basic program, which displays either file type on the screen. I have included comments on each line to try and explain what the program is doing.

```
10 IF A = 1 THEN 100
```

This is a quirk that many people use in Commodore Basic. Obviously the first time the program is run, A will be zero, so this line will do nothing. We will see in a moment how this line gets used.

```
20 POKE 56, 92 : CLR : A = 1
```

This is the standard method of "protecting" Basic memory. This POKE and the following CLR causes Basic to ignore all memory above page 92. The reason for this is that this area of memory is where Koala/Doodle graphic files will load, and it wouldn't do to have Basic write over this memory, eh?

Notice that we set A to 1 in this line. This is so that if the program is restarted, we will only CLR the variables once, thus not losing any data.

```
30 LOAD "filename", 8, 1
```

This line LOADs the Koala or Doodle file into memory.

Koala files start with a "?PIC x " in their names, where "?" represents the Comm-1 character code (orange), and "x" represents a letter from A to Z.

Doodle files always start with the letters "DD" first.

And now, the quirk. Due to the way Basic works, when you LOAD any file into memory, the program will stop running where it is and re-start at the first line again, as if it were re-run, except that variables are not cleared.

Notice that we started the program with a line to check if the variable A was equal to 1, and then we later set A to 1. When this LOAD statement re-runs the program, the IF statement in line 10 will re-direct the program back to here, and the program will continue at line 100, which is next!

At this point in our example program, the graphics file (Koala or Doodle) has been loaded into memory, but now we have to tell the VIC chip how to display the data.

```
100 POKE 56576, 198
```

CUGS DISK OFFER

CUGS is now offering
lower prices on the
library's public domain disks
when purchased in
various quantities.

# of disks	price per disk
1-4	\$9.00
5-9	\$2.50
10-19	\$2.00
20-49	\$1.50
50+	\$1.00

This statement actually doesn't reference the VIC chip, but instead tells CIA controller #2 to redirect the VIC chip to reference memory from 16384 to 32767 (\$4000-\$7FFF for you 16-fingered people!). Unlike the CPU, the VIC chip can't reference all of the computer's memory at once, so the CIA controller has to help it out.

```
110 POKE 53265, 59
```

This statement sets the VIC chip to bitmap mode, instead of the usual text mode.

```
120 POKE 53270, 24 (if Koala)
```

```
or  
120 POKE 53270, 8 (if Doodle)
```

This statement puts the graphics chip into hi-res or multi-color mode, depending on whether you use the Doodle POKE or the Koala POKE, respectively.

```
130 POKE 53272, 120
```

This statement tells the VIC chip where in memory to display its graphic data. It essentially tells the VIC to take bit-map information from address 24576 (\$6000) and color information from address 23552 (\$5C00).

Now, if we are displaying a Doodle file, we're finished, since the file was already set up to be displayed when it was LOADED.

However, if we are displaying a Koala file, we must move the color information stored in the file to a new location where the VIC can access it.

There are two sets of color info. One is stored from 32576 to 33575 (\$7F40- \$8327) and needs to be moved to 23552 (\$5C00). The other set of color info is stored at 33576 to 34575 (\$8328- \$870F) and needs to be moved to color memory at 55296 (\$D800). A simple FOR/NEXT loop can do it:

```
140 B = 23552 : C = 32576 : D = 55296 : E = 33576
```

These variable assignments speed up the program considerably!

```
150 FOR X = 0 TO 999 : POKE B + X, PEEK(C + X) :  
    POKE D + X, PEEK(E + X) : NEXT
```

Note that we only do this for KOALA files, not DOODLE files!

Last but not least...

The background color must be set for Koala files:

```
160 POKE 53281, PEEK(34576)
```

Again, this statement is only needed for displaying KOALA files.

At this point, the picture is now on the screen and being displayed! Let's wait for the user to press a key when he's done watching the picture:

```
170 GET A$ : IF A$ = "" THEN 170
```

Okay, the last thing to do is to put the screen back the way it was before! This is not easy (unless you hit RUN-STOP/RESTORE), but then, not too difficult either.

```
180 POKE 56576, 199  
190 POKE 53265, 27  
200 POKE 53270, 8  
210 POKE 53272, 28
```

These lines put the CIA and VIC chip back the way they were before we ran the program. Note that the screen colors are probably still wrong, though, if we displayed a Koala file. You should probably POKE 53281 to a reasonable color, and clear the screen to get rid of the strange colors.

ADDITIONAL PROGRAMMING NOTES:

When you move the graphic memory, you move ALL graphics to that area, in this case 16384-32767 (\$4000-\$7FFF). This means that if you want to use sprites, you must put them in that memory somewhere! Also, the sprite pointers are no longer at 1016-1023 (\$04F8-\$04FF)! When the screen is displayed this way, the sprite pointers move to 24568-24575 (\$5FF8- \$5FFF), so you must remember to POKE these locations to do sprite programming.

Hopefully, I have typed everything here correctly. I did test this program before entering it here, so I know it worked at least once.

ABOUT FILE FORMATS:

GG and JJ files both use the same encoding format. The compression scheme used is the old dependable RLE (Run-Length Encoding) scheme, implemented on the byte level, for fast compression/decompression.

The first two bytes in a GG or JJ file are the load address of the file; \$6000 for a GG file, and \$5C00 for a JJ file.

The following bytes are compressed graphic data, which when uncompressed will appear EXACTLY in the standard format for a Doodle (JJ) or Koala (GG) file.

The compression scheme is simple. Each byte is processed in order, in the following loop:

1. Get a byte
2. Is the byte = \$FE ? If it is, go to step 5.
3. Store the byte in the output area.
4. Go to step 1.
5. Last byte was \$FE, so get next byte. This byte is the run length encoded byte to be repeated.
6. Get the next byte. This byte is used as a count (1-255) of the number of times to repeat the byte from step 5.
7. Store the data byte however many times specified by the count.
8. Go to step 1.

This process repeats until the file runs out. However, some files have extra garbage at the end of them, I've noticed.

So, does that answer your question?

Helpful Fox

The preceding text was extracted from a message board reply to a question on how to display Koala and Doodle Graphics from BASIC. The complete text from the message dated 9/16/89 is included in the reply by Fuzzy Fox which is in this article.



Executive Meeting Minutes

December 4, 1991
by Dave Coleman - Sec. - Treas.

- Club bought 700 disks from Separate School board via Ken
- Club will buy GEOS 64 and geoPuplish from Garth
- Dave will publicize next meeting
- Garth will deliver the MONITOR to Software Supermarket and The Duncan's
- Ken will continue to do the MONITOR mailings

EXPERTS LIST

The following CUGS members have volunteered to be resident experts in some area of Commodore computing. If you have some expertise that may be of some assistance to other club members, please consider allowing your name to be listed here.

Wordprocessing

Paperclip (to version E)	Jarrett Currie	757 2391
Paperclip (any version)	Ken Danylczuk	545 0644
PocketWriter	Barry Bircher	543 8840
PocketWriter	Real Charron	586 1843
Fontmaster II	Michael Rodgers	728 2595

Spreadsheets

Pocket Planner	Barry Bircher	543 8840
Better Working SS	Ken Danylczuk	545 0644

Databases

Pocket Filer	Barry Bircher	543 8840
Oracle (Consultant)	Ken Danylczuk	545 0644

Communication

Destem 2.0	Barry Bircher	543 8840
Pro128Term	Jarrett Currie	757 2391
Library files	Barry Bircher	543 8840

Music/Sound

(Most)	Ken Danylczuk	545 0644
Stereo Sid Editor	Michael Rodgers	728 2595
Enhanced Sid Player	Michael Rodgers	728 2595

Languages

Forth	Ken Danylczuk	545 0644
Pascal	Ken Danylczuk	545 0644
ML (machine language)	Ken Danylczuk	545 0644
ML (machine language)	Barry Bircher	543 8840
BASIC (2.0-7.0, files)	Ken Danylczuk	545 0644

Graphics

Print Shop/Master	Ken Danylczuk	545 0644
Koala Painter/Printer	Ken Danylczuk	545 0644

Hardware

Disk Drive Maintenance	Ken Danylczuk	545 0644
------------------------	---------------	----------

GEOS

GEOS 64	Jarrett Currie	757 2391
GEOS 128	Barry Bircher	543 8840

Reuse Your Ribbons!

Be environmentally conscious,
and save money, too!
Don't throw away
those used ribbons.
Have them re-inked.

Call Barry Bircher at 543-8840
for details.

New C128 Disks

128 Utilities 7 UG

pull downs	-40 a pull down menu demonstration
disk util	-40/80 dir-lock/unlock files-ch disk name
mode check	-40 checks 1571 drive for mode
1571 resurrect	-40 tries to correct 'soft' read errors
quick data maker	-changes 3 keys for ease of data entry
label maker 2	-80 choose 4 lines to print on 15/16 labels
quick file	-80 file must be entered in data statemnts
sect ed	-40 a disk sector editor from compute
xtrax demo	-40 transfer data between bank 0 & 1
t/e	-80 compute's excellent disk sector editor
rapidformat	-40/80 1571 format single/double sided
multi-copy	-40/80 excellent copy program from RUN
ultracat v2.0	-80 database to organize your disk library
dir labels	-40/80 prints dir on 15/16 label-epson
floppy filer	-80 database to organize your disk library
disk zap 1571	-80 another sector editor
dir.list/prin	-80 a directory printer for gemini 10x

