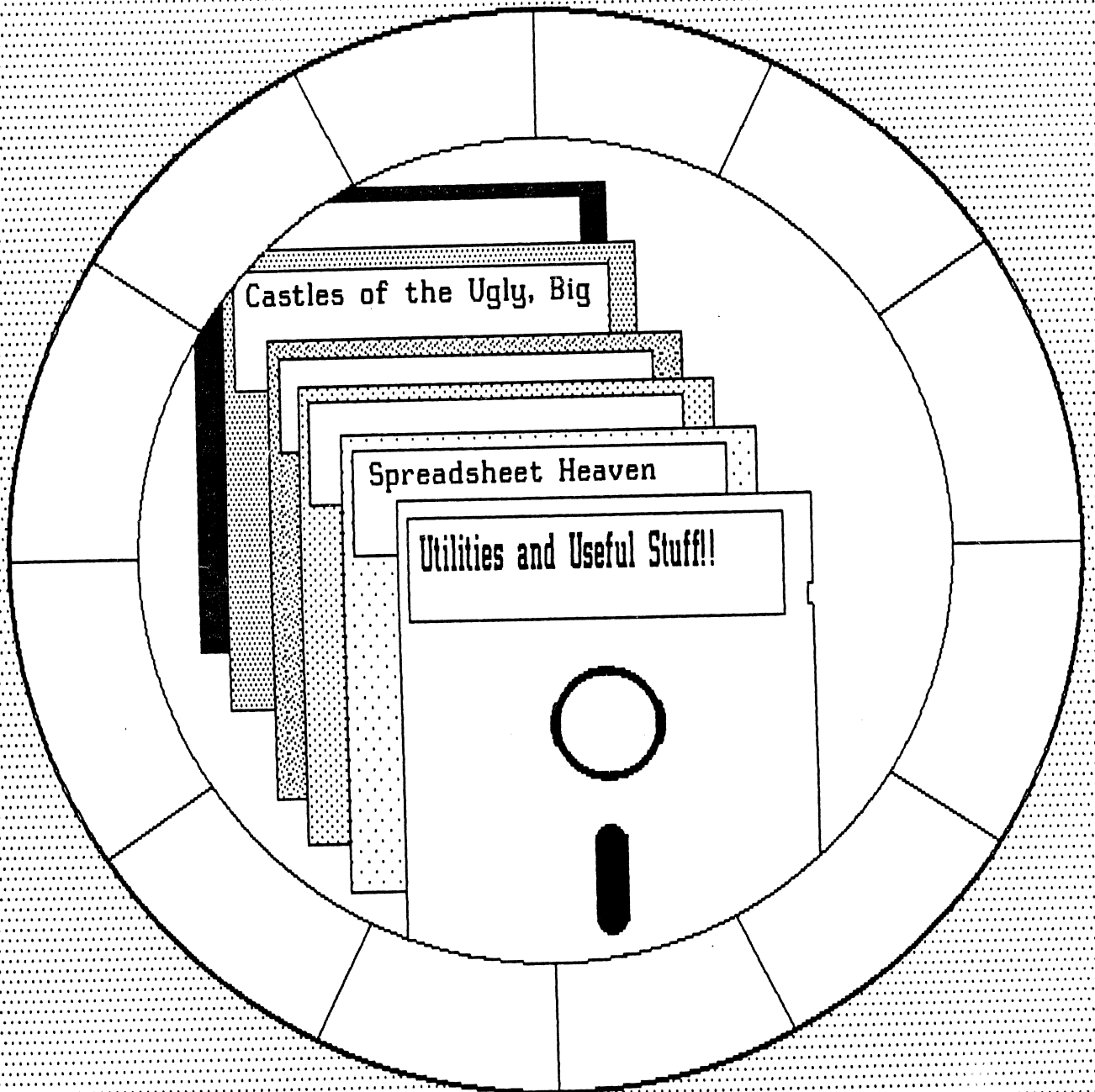


C.U.C.S. MONITOR



"Focus on Software"

Nov./88

Vol. 3 No. 10

SHARE-WARE - Laughter, Inc.

A Typical First Year Commodore User:



"HIT ANY KEY TO CONTINUE"

OBLIGATORY STUFF

| | | |
|-----------------|----------------|----------|
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| ASS'T EDITOR | Greg Rezansoff | |
| MEMBER AT LARGE | Gord Williams | |

THE MONITOR is published monthly by the COMMODORE USERS' GROUP OF SASKATCHEWAN (CUGS), Regina, Sask., Canada. CUGS meetings are held at 7 pm the first Wednesday of every month (unless otherwise noted) in the North-West Leisure Centre, corner of Rochdale Boulevard and Arnason Street.

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 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. Contact Earl Brown, 737 Rink Ave.

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.

IN THIS ISSUE

| | |
|------------------------|--------------------------------|
| CHRISTMAS SHOPPING | - Helping you shop early! |
| MEETING PLACE | - Date, Time, Place, Agenda |
| EDITORIAL | - We STILL Adore our 64s! |
| HARDWARE SUPPORT | - Polished furniture! |
| RICHARD'S WPRO BASICS- | Maze gives us the business |
| SCRATCH 'N' SAVE | - Earl's Pitiul Epic |
| COME ONE, COMAL! | - Comal continued! |
| 128 WINDOWS | - F-U-R-N-REU USER THIS IS 4U2 |
| BOOK REVIEWS | - From you picky Exec. |

Meeting Place:

AGENDA:

PRESIDENT'S ADDRESS
CLUB ELECTIONS

*****coffee****visiting****disk-picking*****

SEE 'EM - TRY 'EM - PLAN TO BUY 'EM
CHRISTMAS GIFT IDEAS FOR 1988



EDITORIAL:

As the old year begins to "wind down", another New Year looms for CUGS. Only the exec.'s decided to "beat the clock" on a few things. Any club has to offer its members new and exciting things to encourage attendance at meetings and more participation in sharing. CUGS, I think, has been triply blessed: 1) these many years we've had a keen, versatile executive whose principal driving force has been the knowledge that the C64 (and its big brother 128) have always been AND STILL ARE the best computer buy around. You can spend more for a computer that will do more, IF YOU'RE WILLING TO SPEND CONSIDERABLY MORE TIME LEARNING HOW! (Sorry, I promised myself I wouldn't get carried away.)

On to the 2nd blessing: our newsletter has not only continued to be the largest, most dependable source of local C64/128 info, IT'S GROWING! Also, careful perusal of its pages will bear witness to the fact that it truly contains CONTRIBUTIONS...regularly...by club members! Where other club's seem to struggle to produce a monthly rag, your editor is pleased to report that we actually get articles from club members - often sufficient to make me feel guilty about omitting one to allow me room for MY comments. It's great - but keep it up! And 3rd, we have a regular and faithful group who attend our meetings, real computer users who are anxious to grow in their understanding of the machines by sharing what they know with each other.

So what's this about new? Well, this issue of the MONITOR begins a series on FURNITURE and accessories designed to make computing convenient and comfortable (thanks to Steve Bogues). And, don't be greedy! Share Steve's offerings with those poor misguided souls who use other machines. Although Steve's designs are intended for the C64/128, much of the advice and some of the construction projects will be useful to them as well.

Also, we're continuing our series on COMAL. If the response is slight we'll keep it light - just enough to whet an appetite or two. With a little encouragement we'll expand it to fully cover this remarkable language.

Also, beginning next meeting, we'll take a look at some of the things you can ADD to your setup to make it even more useful. The kickoff comes with Gord Williams presentation on a control module that can be programmed with the C64 to run your household.

And that sets the stage for ANOTHER exciting year for CUGS members, one filled with new discoveries and new vistas for our beloved C64/128 machinery! And YOU can be part of it - re-read last month's editorial and ... take that step - become an executive member. Sure, the nominating officer will have a list of nominees, but gaining "office by acclamation" can become gaining office "by apathy" - and that spells the beginning of the end for any group.

RUMOR SQUASH #176883.3 - Any literature speculating on the future of computing pauses on the C64, predicts its imminent demise, but covers itself by reminding readers that its been declared dead before. 11 MILLION USERS world-wide CAN'T be wrong (or ignored)! As long as there are people using their machines, willing to share their discoveries and efforts, the discoveries WILL continue and their efforts will be repaid with renewed interest by other users.

In summary, I've used and programmed Apple, old Commodore, Radio Shack and MS DOS, and still "I ADORE MY 64!"

As I said when I began some three years ago as editor of this noble rag ... Keep Komputing ... and Keep Koming (to our meetings, that is!)

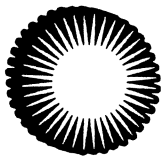
November Nudge

President's Address

This meeting is the second presentation of our software preview. Hopefully, you will get a chance to see what is available in software and, for a change, be able to decide about software BASED ON YOUR EXPERIENCES with a program rather than reading the articles or hearing about the program from somebody else.

Tonight's meeting is also election night. It is your chance to get involved in CUGS by joining the executive. If there is something you don't like about what is happening or if there is a direction you would like to see CUGS go, it is your chance to get involved in the executive and help plan the activities for next year. This is the second year that membership in CUGS has been over the 50 mark (from 35 the previous 2 years). Having more than 50 members is a very commendable feature of our club and I would bet it puts us at or near the top of membership in any computer club in the city. However, to maintain this number, our club must offer a variety so that everyone can find something of value by being a member of CUGS. Each member has a duty to help foster the growth of our club by coming out of the woodwork and offering their expertise, and/or their experiences to the club. This involvement may take many forms. One example could be writing a review of a program or a book for "The Monitor", or writing an article about some aspect of computing for "The Monitor". The involvement may take the form of offering programs that you have that are not in the library to the librarian for inclusion in our disk library (you will be rewarded here by swapping for disks of programs you want). Your involvement may be a presentation on some aspect of computing at a club meeting - describing a program, explaining a programming feature etc.. At a minimum, your involvement should be attending and being heard at meetings, leaving messages and bulletins for others on the bulletin board, and promoting CUGS to non-members you know. The strength of CUGS depends on the active participation of its members. The more active each of us becomes, the stronger CUGS will become. With the aim of strengthening our club and meeting the needs of more members, a questionnaire is being prepared to get from the members your feelings about a number of issues. Please take the time to respond to this questionnaire when you receive it so that decisions, that will meet as many of your needs as possible, can be made. If there are any special interests you would like to see pursued in the questionnaire, leave a bulletin or E-Mail on our bulletin board with your suggestions.

Memberships Due:



CUGS Memberships are now coming due.

Fees: \$10.00 per year (Jan. - Dec.)

A \$5.00 per year additional fee is added to cover the cost of mailing for members who are unable to attend the meetings but want to enjoy the other benefits of CUGS.

Benefits: CUGS MEMBERS ...

- ..meet once a month with other Commodore Users. A chance to share ideas, ask questions, learn what's new, etc..
- ..receive the monthly newsletter - "THE MONITOR".
- ..have access to the club's disk library.
- ..have access to the club's bulletin board.
- ..receive discounts at Software Supermarket & TTL Computer Concepts. (membership card must be shown)

SCRATCH IN SAVE

by Earl Brown

Woe is me! For over a year now I have been using a C64 or a 128 with a parallel Epson FX-80 printer and a Xetec Super Graphix Interface. With the 64 and PaperClip II this combination worked fine. The printer worked properly and flawlessly. Not to be undone though, I decided I'd rather like to use a word processor with my 128. But PaperClip didn't accept the dongle in port one (where it is supposed to go). I wrote Electronic Arts to inform them of my dilemma and awaited a reply. And I waited... and I waited... and I waited. In the meantime I managed to pick up a used version of Paperback Write at the Computerfest. This version would not always load for me, so I jotted off a note to Digital Solutions about my problem and they advised me that for a quite a few more bucks I could have the version replaced with the new Pocket Writer 2 or for umpteen dozen bucks I could also get Pocket Filer 2 and Pocket Planner 2. The combo sounded better so I told Bart about it and, lo and behold, he offered me almost the same deal (a buck or two in my favor) so I jumped at it. However, this new version wouldn't always load with my 1571 disk drive either. So I took my 1571 down to Software to check out.

Umpteen bucks later I find there is nothing wrong with my disk drive. As long as I loaded Pocket Writer or Paperback Writer from a cold computer, it always loaded fine. So that's what I do now. My problems are not over, though. It seems the printer driver for the Epson in Pocket Writer 2 does not trigger the carriage return of my printer and everything prints on the same line. Not to worry, I decided. Just load Pocket Writer 2 as usual and use the printer file on the original Paperback Writer disk. Lo and behold it works. Now I read in an advertisement, a method in which I can make copies of my Pocket Writer 2. Wonderful, I thought. I'll just get it, back up my disk of Pocket Writer 2 and then scratch the Epson file from this copy and replace it with the one from Paperback Writer. Right? Wrong!

For starters, my 1571 will not make a backup of the program. So I took the programs down to Software one evening and, using their 128D, I managed to make a successful backup of the disk in. I brought everything home with me and successfully load the copied version into my computer. All I had to do now is scratch the Epson file and replace it with the other one. Damn! The process of transferring the new file corrupted the entire disk. Here I am back to where I started. I concluded the problems I'm having must still be in my disk drive and I have to wait for the ROM chip I've had on order. After many months, it finally arrives and I replace it "Toot Sweet". But damn and double damn! I still can't get the copy program to work for me.

In the meantime, guess what? I get a letter from Electronic Arts advising me that for umpteen bucks and my old PaperClip manual cover, they will send me the latest version of PaperClip III. Well, after losing my wallet and recovering from all the bucks I've already spent, I sent away for the new PaperClip III. It arrived day before yesterday.

The good news is I no longer have to use a dongle with PaperClip and the disk is easily backed up. The bad news is MY E P S O N P R I N T E R T R I P L E S P A C E S instead of single with the Epson File. Since it is written in ML, I have no idea how to modify it to get rid of the extra carriage returns. If any of you have any ideas for me, let me know. Else I'll have to jot another letter to Electronic Arts and wait forever for a reply. It's almost enough to make a grown man cry.

We have three disks added to the library this month.

1. Cugs Gazette disk #28 (includes Aug., Sept., Oct., Nov. 88)
2. Graphics 13 #GM
3. Graphics 14 #GN

128 Windows:

EXPERIENCES WITH THE 1750 REU
OR

"How I figured out a practical use for the silly thing!"

By Shaun Hase

After messing around with my 1750 Ram Expansion Unit for over a year now, I have finally figured out how to use it as a RAMDISK, sort of. It won't do file swapping between the physical drives and the REU, but it helps a great deal when you fiddle-program as I do. The practical side of this is that the theory can be used to write programs that load other programs, or modules, onto themselves from the REU. The fun side is that 64k programs get loaded into memory, after setup, in no time at all.

What do you need, besides a 128 and a 1750 (1700)? Well, a piece of paper and a writing utensil, a calculator (although the computer will do), patience, and some simple math skills. Oh, yes, and two reprogrammed function keys. These should be set up as follows:

```
key1,"peek(45)+peek(46)*256"+chr$(13)
key2,"peek(4624)+peek(4625)*256"+chr$(13)
```

A table should also be constructed, on the paper, consisting of at least seven columns, with these headings: HI, LOW, # BYTES, START, BANK, 4624, 4625. Another column could be added for a description of the program stored in the REU. The headings mean:

HI- End of BASIC location (decimal)
LOW- Start of BASIC location (decimal)
BYTES- Length of program, in bytes (HI - LOW)
START- Position of program in REU, any bank
BANK- Bank number
4624- Decimal value of memory location 4624
4625- Decimal value of memory location 4625

Ok, now, here's what you do. A program is in memory and you want to save it to the REU. How do you do it? Press F2 and F1 to get the programs position in memory, HI and LOW respectively. Now you need the number of bytes the program actually takes in memory, so subtract LOW from HI. PEEK memory locations 4624 and 4625. Next, decide on where the program is to be allocated in the REU (START) and the bank (BANK). Write all these numbers down on your fancy table before starting anything. The numbers for 4624 and 4625 will be used later in recalling your program and it's easier now to figure them out by just PEEKing memory than having to hand-calculate the silly things later. Now, type this line, filling in the words for the actual numbers calculated:

```
STASH # BYTES, LOW, START, BANK
```

There, that's all there is to it. The program is now in the REU. But, how do you bring it back? First type NEW:CLR and LIST to make sure memory is empty. If you press F1 and F2, the numbers should be 7169 and 7171, respectively (that is if a graphics screen has not been allocated). However, the program you want to load into memory will surely be larger than 3 bytes. So, now what? Here's where the numbers under 4624 and 4625 come in. These two positions hold the end of BASIC location, in a low-byte high-byte format. So, POKE the number in the 4624 column into 4624 and POKE the number in the 4625 column into 4625. To see that you've moved the end of BASIC pointer, press F2. It should be different now, most likely corresponding to the HI value calculated before. Now the computer will see the program loaded back into memory. I tried doing this before, without moving the end of BASIC pointer. The program transferred all right, and was executable, but it couldn't be saved or modified. The computer didn't realize that there was

code in memory. It just looked at the end of BASIC pointer and said, "Well, the program in memory is only three bytes long, and this bozo is trying to tell me that there's something else past that? No way am I going to let him do that!" and the computer breaks into the monitor. So make sure you move the end of BASIC pointer. Now, finally, type the following line, again filling in the words for actual numbers:

```
FETCH #BYTES, LOW, START, BANK
```

If all went well, the program should be in memory intact, executable, modifiable, and savable. One word of warning. The C-128 should be in SLOW mode for FETCH and STASH operations to function properly. Want a numerical example? Ok...

F1 and F2 give you results of 7169 and 16608, respectively. F2 - F1 = 9439. PEEKing 4624 and 4625 give 224 and 64, respectively. Write all of these numbers down in your table.

| HI | LOW | # BYTES | START | BANK | 4624 | 4625 | DESCRIPTION |
|-------|------|---------|-------|------|------|------|------------------|
| 16608 | 7169 | 9439 | 1000 | 0 | 224 | 64 | !method of least |

Type: STASH 9439, 7169, 1000, 0. The program is now in the REU. To clear memory in order to load a new program in, type: NEW:CLR and LIST to make sure memory is empty. Now type: POKE 4624, 224 : POKE 4625, 64. Check to see if the end of BASIC pointer is moved by pressing F2. The number given should correspond to the HI value. Now, finally, type: FETCH 9439, 7169, 1000, 0. Et voila! Le program est dans le memory. C'est facile, n'est pas?

Come One, COMAL!

by Ken Danylczuk

First, an apology - if you tried last month's program you might have had a little trouble with my spelling (if you copied my mis-spelling of the variable Fahrenheit). Obviously, having the ability to create variable names up to 78 characters in length does have ONE drawback - ya better watch yer spelling!!!

I'll keep this kind of brief, because we're running to several pages now. I promised a look at some of the COMAL commands that make sprite and graphic use a little easier for the novice. Well, how many of you ever wanted to design a little moving sprite with some simple animation? How many of you ACTUALLY did it in BASIC 2? How many of you did it using a graphic aid, but couldn't figure out how to use the sprite afterwards in other programs (BASIC)? How many of you would pay me big money to find out how....? Coop! 'scuse me, I got a little carried away.

COMAL 0.14 offers several graphic and sprite commands, INCLUDING (but not only) full turtle graphics. I'll omit the turtle graphics for now and just deal with some of the following:

| | | |
|-------------|------------|-------------|
| FRAME | CLEAR | SETGRAPHIC |
| SETTEXT | BACKGROUND | BORDER |
| FILL | FULLSCREEN | SPLITSCREEN |
| SPRITE SIZE | SPRITEBACK | SPRITECOLOR |
| SPRITEPOS | SPRITECOLL | IDENTIFY |

The following example of a sprite with simple animation is an excerpt from a longer tutorial on animation in a newsletter from the COMAL USERS' group in the U.S.



BBS Business:

```

0010 setup //do the procedure 'setup'
0020 repeat
0030 walking //do 'walking' until 'q' key is pressed
0040 until key$ = "q"//quit
0050 //(rem)
0060 proc setup
0070 blue:=14; pink:=10
0080 white:=1; black:=0
0090 define'images //do procedure 'define'images'
0100 repeat
0110 input "speed (1-10):":speed //get speed
0120 until speed>=1 and speed<=10
0130 background black // background o black
0140 setgraphic 0
0150 spriteback blue, pink //mult. sprite
0160 spritecolor 1, white //white
0170 spritesize 1, false // no magnif.
0180 plottext 1,1"press q to quit" //print message.
0190 endproc setup
0200 //
0210 proc define'images closed //define the sprite
0220 dim shape$ of 64, c$ of 1
0230 shape$(1:64):=""
0240 shape$(64):=chr$(1)//multicolor
0250 c$:=chr$(170)
0260 forx = 22 to 63 do shape$(x):=c$
0270 c$:=chr$(170)
0280 forx = 1 to 21 do shape$(x):=c$
0290 define 0, shape$
0300 c$:=chr$(20)
0310 for x = 22 to 42 do shape$(x):=c$
0320 define 1, shape$
0330 define 3, shape$
0340 c$:=chr$(60)
0350 for x = 43 to 63 do shape$(x):=c$
0360 define 2, shape$
0370 endproc define'images
0380 //
0390 proc walking
0400 for walk:=1 to 319 div speed do
0410 x:=walk*speed
0420 y:=100-walk mod 4
0430 spritepos 1, x, y //place sprite 1 by x,y
0440 identify 1, walk mod 4
0450 pause(99)
0460 endfor walk
0470 endproc walking
0480 //
0490 proc pause(delay) closed
0500 for wait:=1 to delay do null //do nothing
0510 endproc pause

```

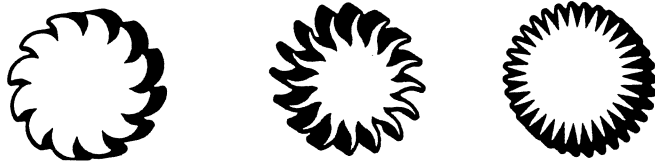
Last month I outlined a few of the features of the Bulletin Board System. If you haven't called, yet, do so. The more who are involved, the more fun it is. The board is available 24 hours/day and 7 days/week (except when I put it down to make changes or to take the computers to the club meetings). If you get 'NO CARRIER' when you call that means that I am messing around with the files. I try to take as little time as possible so please be patient and call back.

As the board operates, shortcomings and changes become evident. To make it easier, I have made a few changes since last month. The major change is that the main menu 'information' file has been dedicated to explaining how to use the Bulletin area of the bulletin board. It also contains information about using the color/graphic features of the bulletin board. A major advantage of this is that you can capture this in a buffer and print it out on paper so you have the features available.

The newest version of the BBS has been ordered from the author (programmer). As soon as it arrives, I will be installing it. This will probably involve some changes for those of you who have been calling. Just bear with us and I will try to include explanations for you which indicate the differences (if any).

When I set up board initially, I had to create a number of files. Two of these involved the WELCOME screens for both ASCII and C/G (color graphics). Shaun Hase submitted a welcome screen for ASCII which is now being used. Thank you Shaun. As soon as the new version is installed, we are going to have a contest for the creation of a new C/G WELCOME screen. Watch the CUGS bulletin area for details about the contest.

One last thing that I would like to mention is that I have been accepting MONITOR articles on the BBS. Write whatever article(s) you want and upload it (them) as a sequential file(s) to the board. It saves you the hassle of having to get articles personally to the editor. I transfer all the articles to one 'MONITOR ARTICLES' disk. One thing you should realize with this is that anything you upload to the board is "invisible" to everyone who calls. I have to rename a file to make it possible for others to see it so your articles can't be read before the MONITOR is published. Soooooo... no excuse for articles now!! Sorrrrrrry!!!



FLASH!

The WORD from RM (Richard Maze, dummy) is that the room here in the Leisure Centre will NOT be available after Christmas. We are considering moving our meeting date to the SECOND WEDNESDAY each month in the Leisure Centre again. We'll keep you posted!



Christmas Shopping!

Through the generosity of Bart at Software Supermarket, we will once again giving club members a chance to preview what is new in software. Last year we held this in December and although it was well received, many felt it was too late. Bart feels that his new Christmas stock should be available by November 2, so we will give you a chance to have a hands-on with the newest, latest software.

We will have a number of C64's and 128's set-up so you can examine whatever you want.



The entire letter should look like this:
(Note: substitute the checkmark (english pound sign) for
%.)

Remember that each line of formatting must end with a
return carriage as well as each single line of text and
each paragraph.

```
%pp66:pg54:lm56:rm75:vp6
143 Birchwood Cres.
Regina, Sask.
S4S 5S3
<RETURN>
September 1, 1988
%lm10:ln12
Mr. Big Boss
XYZ Ltd.
123 Something Street
Regina, Sask.
S4S 5S3
%cn1:ln1
re: Summer work program
%cn0:ln1
Dear Mr. Boss:
%sp2:ai+5:ln1
This is the first line of the first paragraph.
This is the first line of the second paragraph.
This is the first line of the last paragraph.
%spl:ai+0:lm56
Yours truly
%ln3
Richard Maze
```



As I mentioned above, it is a good idea to display the
letter on the screen to check for errors. Particularly
check the formatting to ensure that a one-page letter
does look properly centered and does fit on one page.
Once everything checks out, make sure the paper is
positioned properly in the printer and print the letter.

WANT AN ARTICLE ON A PARTICULAR TOPIC?
LET THE EXECUTIVE KNOW YOUR WISHES.

Ye Olde Booke Reviews:

```
Title- Commodore 128 Reference Guide for
        Programmers
Author- David L. Heiserman
Publisher- Howard W. Sams & Co.
Cost- $24.95
Level- Beginner to Intermediate BASIC & M.L.
Pages- 553
```

This book is for the general user who does some
programming of his own in BASIC, and for an intermediate
M.L. programmer. Its format is similar to the users
guide but provides more in depth information and
examples in both BASIC and M.L. (Machine Language). This
book pretty well covers every aspect of the 128, from
disk I/O to sprite animation. You'll find this book
will get dog-eared in a short time, as it is an
excellent source of information. The numerous BASIC 7
commands are explained and are shown used in examples.
If you are like me and cannot (or will not) memorize
every one of BASIC 7 commands, this book comes in handy.
M.L. commands are explained in fair detail. Tables of
their uses (or misuses) come in handy when your
programming in M.L. If you want to know things like -
"If I call \$FFBD routine, will it affect the X
register?", this info is here. In a nutshell, I would
say this book is an enhanced and expanded version of the
users guide, one that no one should be without.

For the 128 programmer, I give it a rating of a big 8
out of 10.

```
Title- Programming the Commodore 64 (The
        Definitive Guide)
Author- Raeto Collin West
Publisher- Compute!
Cost- $34.95
Level- Beginner to Intermediate BASIC & M.L.
Pages- 609
```

This was one of my first books on programming. I found
it VERY good at what it was published for. The subtitle
says it all - "The Encyclopedic Reference Guide to the
Commodore 64 Computer". Its format is more like a
computer text, and used, more or less, as a course on
programming the 64. I found it not so good at being a
reference guide but an EXCELLENT source of ideas, "whys
and howcomes". It goes out of it's way to explain the
hard-to-grasp concepts of programming. It covers all
aspects of programming in both BASIC and M.L. with
excellent examples of both.

For the 64 programmer this is a must have. I rate it a
BIG 9 out of 10.

```
Title- Commodore 1571 Internals
Author- Rainer Ellinger
Publisher- Abacus Software
Cost- $24.95
Level- Beginner
Pages- 487
```

This is one book I recommend you do NOT, I repeat, NOT
BUY. Your money will be wasted on another user guide
that is less than what you already have in your owner's
book supplied with the drive. It covers the same type
of commands, syntax, and all that jazz that the owner's
guide covers (and the latter does a better job of it).
The reason I bought it was the ROM listing that takes
over 325 pages. The ROM listing is annotated (just
barely). I found it to be very confusing due to the
layout used (similar to a telephone book). There were
several typing errors, errors in general informatior
(the worst kind) and errors, errors, errors!

I rate this a a lowly 2 (The cover looked nice).

```
Title- Machine Language
Author- Jim Butterfield
Publisher- Brady Communications
Cost- $20.95
Level- Beginner
Pages- 326
```

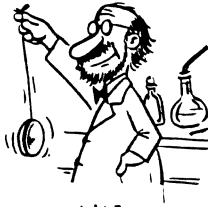
This is another M.L. book that is fairly good at
teaching the 64's M.L. It gives you an idea of the
computer's way of working with all the usual OP code
definitions, appendices and tables. It is not really of
any use after you've read it a few times. The
appendices are available in most other REFERENCE Guides
that are more appropriate for that use. I found the
reference material hard to find/locate when needed
(after looking in the Table of Contents/Index locating
the table required, then asking myself "What was I
looking here for???") soon got the best of me. This
should not hold you back from buying it, as it does a
good job of teaching you the fundamentals.

For beginner 64 "M.L.-ist", I rate this a fair 7 out of
10.

```
Title- 128 Machine Language for Beginners with
        L.A.D.S.
Author- Richard Mansfield
Publisher- Compute!
Cost- $29.95
Level- Beginner to Intermediate M.L.
Pages- 392
```

This book is an excellent starter for the budding M.L.
programmer or someone just wanting to know how a
computer ticks. It explains, in easy "street talk",

SIR RICHARDS BASIC WORDPROCESSING



Enter the inside address (name and address of person you are sending the letter to) as is with a carriage return at the end of each line. For example:

Mr. Big Boss
XYZ Ltd.
123 Something Street
Regina, Sask.
S4S 5S3

In the last two articles, I examined setting up a title page and printing an envelope using the word processor. In this article, I am going to use my word processor to prepare a business letter. The word processor I am using is Paperclip. If you have a different word processor you will probably find that most of the commands are the same or very similar. There are many different styles of business letter. The one I am going to use works well for me. I hope that any business education teachers reading this will be very tolerant of me and my 'business style'.

This section is optional. Sometimes it might help to indicate what your letter is about. This is done by using the letters 're' followed by a colon and a two or three letter title. This is usually centered and underlined. The formatting involved is simply turn centering on (cn1) and go down one line (ln1). The underlining is turned on and off as part of the text line. Following this line, centering is turned off (cn0) and another blank line is printed (ln1). For example:

```
<checkmark>cn1:ln1<RETURN>  
re: Summer work program<RETURN>  
<checkmark>cn0:ln1<RETURN>
```

The greeting is simply 'Dear <name>' for example: 'Dear Mr. Boss' located one blank line below inside address (or title line). If you used a title line no further formatting is required. If no title line was used, press RETURN by itself on the next line to create the blank line.

The body of the letter should be double-spaced with each paragraph indented 5 spaces. Double spacing is obtained by using the formatting command (sp2). If the letter is only one or two paragraphs, you may want to indent manually. To let Paperclip do the indenting use the formatting command - ai+5. Following the greeting all of these can be put on one formatting line as follows:

```
<checkmark>sp2:ai+5:ln1<RETURN>
```

The ln1 command is needed because double-spacing won't take effect until after the first line of the body of the letter is printed.

The closing of the letter involves a number of formatting commands. The spacing has to be changed to single-spacing (spl) and automatic indentation has to be cancelled (ai+0). The left margin must be changed back to line the closing up with the return address (lm56). All of these can be put together on one formatting line:

```
<checkmark>spl:ai+0:lm56<RETURN>
```

The closing consists of the line 'Yours truly', 3 blank lines (for your signature) and then your name. The double-spacing will cause this to appear down one line from the last line of the body of the letter. This would be entered as follows:

```
Yours truly<RETURN>  
<checkmark>ln3<RETURN>  
Richard Maze<RETURN>
```

If copies of the letter are sent to other people and/or if other things are included with the letter these should be noted in the lower left corner one line below your name. The formatting involves resetting the left margin to 10 (lm10) and printing one blank line (ln1). Enclosures (other things included with letter) is indicated by the letters enc while copies are indicated by cc followed by the names. For example:

```
<checkmark>lm10:ln1  
enc  
cc Mr. XYZ
```

To set up a business letter we first must indicate the paper size and number of print lines used. On normal 8 1/2 X 11 inch paper we usually try to leave one inch margins on each side. However, if the letter is very short (only one or two lines in the body) you may want to extend these margins to 1 1/2 inches. For 11 inch paper use pp66, to insure one inch margins use 54 print lines (pg54) and position down one inch (vp6). Note: 1 1/2 inch margins are obtained by using pg48:vp9. A right margin of 75 gives a one inch margin (rm75). To start out we want to put the return address in the top right corner. To get the left margin a bit of calculation is required. Count the number of characters in the longest line of each of your name, street, city/province, postal code, and today's date. Subtract the largest of these values from 75 to get the value for the left margin. For example, if your street address is the greatest number of characters at 19 characters, the left margin would be 75 - 19 = 56 (lm56). All these formatting commands can be put on one line which would then look like:

```
<checkmark>pp66:pg54:lm56:rm75:vp6
```

The return (your) address is typed in normally except don't put your name here, start with your street address. Don't forget to put a carriage return marker at the end of each line. After the last line of the address is typed, press RETURN by itself on the next line. This will leave a blank line (double space). Today's date follows on the next line. For example:

```
143 Birchwood Cres.<RETURN>  
Regina, Sask.<RETURN>  
S4S 5S3<RETURN>  
<RETURN>  
September 1, 1988<RETURN>
```

Now we have to add formatting commands so we can change the left margin back to one inch and go down an inch or two to the inside address (who we are sending the letter to). The left margin can be set to 10 (lm10) to give a one inch margin. The distance from the date line to the first line of the inside address gives you a great deal of flexibility. Remember that there are 6 vertical lines per inch. A setting of ln12 will give a two inch space. A setting of ln6 will give a one inch space. I think the required value is supposed to be two inches.

If there is difficulty in getting a letter to fit all on one page I will change this to any value needed between 6 and 12. If the letter is going to require two pages anyway, I will leave this at 12. The easiest way to check is to set it to two inches and then display the letter on the screen before printing it. If all but your name appears on one page, you may want to change this value and try again. Both of these formatting commands can be put on one line as long as the ln command is last. For example:

```
<checkmark>lm10:ln12<RETURN>
```



There are algorithms that are reasonably good but not infallible. With AI we could program our game to play TIC-TAC-TOE, but this time give it the ability to learn thru it's mistakes. We can give it the rules of the game and a little bit of initial "intelligence" data and let it play a few games. Soon it will be an excellent opponent.

Perhaps we will see advances in our monitors in the near future, like 3-D holographics. I don't know. I have to give up on trying to keep up with the fast-paced developments that are occurring at a daily rate. The best recourse is to wait until the dust cloud clears in a few years and see what is around. I can tell you that the C64 and 128 will still be here, working, on top of my desktop.

W-W-W-Well th-th-th-that's all folks...

Besides it's 3.00 A.M. an' I got to get some shut eye.....Bye

ERGONOMICS:

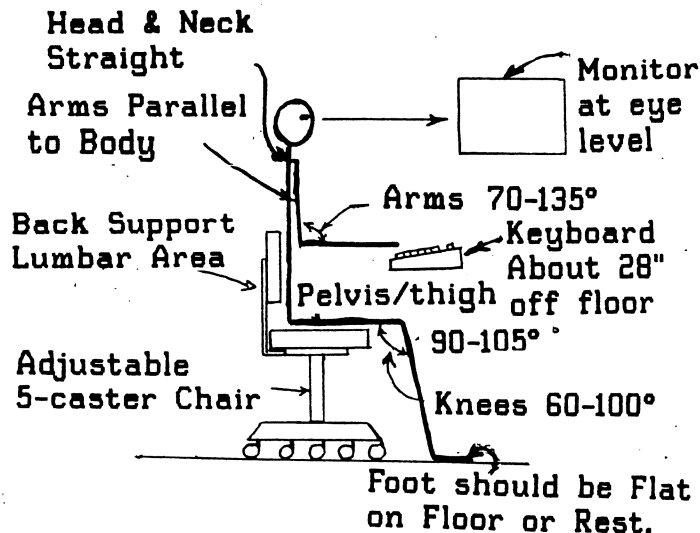
ERGONOMICS: A GUIDE TO WORK STATION COMFORT
by Steve Bogues

Have you had some discomfort after a long period of time when you were working with your computer? Do you have a sore back or other physical pains? If the answer to either question is 'yes', you might unknowingly hurting yourself or causing unnecessary stress to your body. If you think you are a victim of yourself, I may have some suggestions that you could follow to correct this.

The first area of concern should deal with the way you place your body. This is referred to as "Body Alignment". Some areas to examine are:

- 1) The head and neck should be straight and looking in a forward direction at eye level with the monitor.
- 2) The arms should be parallel to your body with your forearms bent at a 70 to 130 degree angle and resting comfortably on your keyboard.
- 3) The back should be supported (especially in the LUMBAR [lower back] region).
- 4) The knees should be bent between 60 to 100 degree angle to allow for maximum comfort.
- 5) The feet should be flat on the floor or use a foot rest to compensate for height differences.

ERGONOMIC DIAGRAM:



A second area of concern is the subject of equipment and hardware:

- 1) Chairs at a very important component to the comfort of the user. A good chair should have the following qualities:
 - a) good back support for the lumbar area.
 - b) it should be adjustable to your body type.
 - c) if it is a secretarial chair, it is recommended that the 5-caster model be used since they are less likely to tip.
- 2) Terminal desk set-up is very important to the user's comfort. some of the general hints are:
 - a) the desk should be at a 90 degree angle to windows to avoid glare on the screen.
 - b) the monitor should be at eye level to avoid neck strain.
 - c) a copy stand at about eye level will save or neck strain.
 - d) the keyboard should be at 28" above the floor.
 - e) a foot rest can add to your comfort and decrease back strain.

Reference: DATASPAN (developed by the Joyce Institute Seattle, Washington.)



*
* O O P S ! *
*
* The number for the CUGS BBS *
* is incorrect in the October *
* MONITOR. The correct number *
* for CUGS BBS is 586 1189. *
*
* Sorry! Richard M. *
*



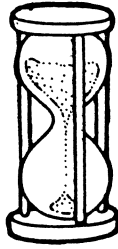
Next Meeting:

Wednesday, December 7, 7 pm

Room #1 Northwest Leisure Centre

Featuring: GAS (Graphic Assault System)
and a Home Control System

Time Machine III



A Known History
An Uncertain Present
A Possible Future
Of the Micro Computer Industry
As Seen by Barry Bircher

Last month we looked at the general past history of the computer. This month I would like to lay my 2 cents worth on the crystal ball and predict a future for the computer.

The ENIAC was worth \$486,804.22 in 1960 dollars and cost over \$480.00 per day for electricity. It didn't really have much RAM as what RAM it did have was used up by the CPU. Remember the VIC-20 with 20K RAM? It was selling for about \$695.00, is now "obsolete" (in a sense) but was available in 1985 for \$50.00. The C64 with 64K RAM was \$795.00 in 1982 and is now selling for less than \$200.00. The Amiga 500 sells for about \$795.00 with a 3-1/2 built in disk drive and 512K RAM. The trend is clear that RAM for computers is getting cheaper and cheaper as time goes on.

A person can only guess that the next Amiga will be the Amiga 3000AT with a 68030 and a 80386 CPU that will "blow away" any home computer to date. Imagine running OS/2 CAD in one Amiga window while you work on something else. This really is mind-boggling. I'm glad my familiar, trusty 128 is still on my desk, as I could not imagine trying to program something like that and multitask to boot.

As everybody is trying to outdo everybody else, somebody is conducting experiments on superconductivity. It is really too early to predict if this one discovery will dramatically change the current production of IC's, but if all industry indications come true, we may see a dramatic further reduction in the current level of manufacturing small IC's. Let me explain.

As it is now, we have reached a plateau in getting these circuits smaller and still able to function. No matter how small we make some circuit, it will be limited in the amount of power it can consume. A 1 watt draw in power is concentrated on the small surfaces of the actual silicon surface, which is, in some cases, smaller than 1 square centimeter. As you increase the power draw, the temperature of the chip rises (and these chips hate to get all heated up). The manufacturers of these chips have to play "give and take" to maximize performance. What I can see as a major improvement in these chips is to eliminate the heat as a factor. Then you can further reduce the size and still get better performance and more circuits to the inch (more powerfull chips). If that fails to materialize then, for sure, we will see better bearings for our disc storage (possibly C-D's?) systems.

What is "Superconductivity"? Superconductivity is extreme low electrical resistance (0.0000 ohms) seen by some material when cooled to a very cold temperature. This means the possibility exists that materials may be manufactured that have no resistance. With no resistance there is no heat produced in a current carrying conductor. If this can be applied to IC's then a major leap can be achieved in the miniaturization of the chips. This, however, is many years from becoming reality.

The other possibility for improving the speed of the chips is to use coherent light that is produced by lasers. After all, light is a form of electromagnetic radiation, and is used in data communications now. Currently, chips are using electricity as the medium recording high or low. Eventually, there will be a point reached in clock speed that will be self-impeding, because of inherent capacitance and inductance. If we can come up with a method that can control the wave form of the laser, a light operated ultra high speed CPU may appear in the near future.

Motorola has announced the introduction of their new reduced instruction command set CPU 88000 processors. They say it is the newest breed in processors as the command set has been substantially reduced, and the commands that are supported are optimized. Therefore, they are faster running. They found that 20% of the command instructions were invariably used to do 80% of the common program coding. All the other commands are extra commands that make the programming easier but run slower.

A trend that can now be seen in the Amiga and IBM PS/2 machines is the ability to multitask, that is, to run more than one program at the same time. Networking is a relatively new term. It is basically a shift towards smaller computers that are connected together via telephone lines and the like, as opposed to one super large mainframe. This allows a user on such a system to access programs and files on another close or distant computer. In the past, a mainframe computer was used (and still is to some extent) to access all files. But, as you probably know, not all users are conveniently at a mainframe terminal for one reason or another. It now is a simple matter to have the programmed system up and running on all the computers you need to access. This is of limited use to home users but is has a tremendous advantage to larger companies.

The next step I see is parallel processing. The ability to run more than one program in the same computer. Same idea but with a twist - instead of one CPU doing all the work and dividing it's time between each of the running programs, you have a separate CPU and maybe a math coprocessor for each of the programs.

Later on that week.

Darn when I say this technology is moving fast, I DO mean it is moving - - - FAST.... Just now I am reading a magazine that just announced a "Transputer" board for the AMIGA. Sounds corny, I know. But it's true, you can now use a separate processor with it's own memory to run programs (true parallel processing). The board apparently contains a 32-bit IMS T-414 or a T-800 transputer chip running at 15 MHz (almost as fast as the new Intel 80386 chip at 20 MHz). As always when changing things, a new O/S is required (O/S = Operating System = a program in the computer that makes the computer act like one). The Company in Germany is working on the "HELIOS" O/S for the Amiga and it will have a UNIX-like Command shell.

Also here in the near future is Tandy's new THOR Compact disc storage system. Capable of leaping tall buildings in a single bound. Faster than a speeding bull... Oops ... wrong notes. THOR (Tandy High-intensity Optical Recording) is Tandy's answer to the Mega storage disc, but that is an erasable...yes, I'll say it again, ERASABLE Compact Disc system. Capable of storing 500-600 Megabytes of data, that's about 3530 disc's worth of 1541 formatted, fully-loaded diskettes.

As far as programming languages go, I expect to see some parallel processing type programs like the "HELIOS" O/S becoming more of the norm. One aspect of today's programming is the fact that the programmer must know what he wants the coding he is writing to do. The programmer can write his code to do only what he intends. That is, he must envision all the possible limitations, variations and problems that may come up when running the program and be able to handle them as they come. Artificial Intelligence may play a bigger role in how we program these beasts. For example, if we wanted to write a program to play a game of TIC-TAC-TOE we would write it so that it, first of all, follows the rules of the game. Next, get it to play a half decent game, not to mention keeping score, checking for illegal moves, check for wrong input characters and so on. This sounds all well and good until you try to get the computer to play by itself and make it able to play the correct move(s) right after yours. The possible moves in a game like this are in the thousands and we must program the computer to choose the right one.

just what binary and hex and CPU's are all about. This was the second book on M.L. programming that I bought a Bart's. I like to give credit to Richard Mansfield's efforts in this book. He totally turned me around in my way of thinking of M.L. He will take you through the fundamentals of computers, addressing modes, computer math, instruction set and on to M.L. equivalents and BASIC commands (a nice touch). It also gives a brief memory map of the 128.

I was a little apprehensive about buying it. Included in the appendix is a program you enter using MLX called "L.A.D.S." (NO.... not an dreaded Irish disease) that the author says will make M.L. programing as easy to edit than BASIC (Ha ha, chuckle chuckle). No sooner said than bought. At home I read it from cover to cover, and spent 4 hours typing in L.A.D.S. (using Compute Gazette's MLX, an M.L. entry program). If you get this book and want the program, please let me save you many hours of typing - ask me for a copy.

To make a long story short "it works" and, boy, does it work. L.A.D.S. (Label Assembly Development System) is itself a machine language program that looks at your coding that resides in BASIC's program text space. This implies that you can list it as if it were a BASIC program. In fact, this is its prime advantage, for it can use many BASIC-type utilities that programmers are so familiar with to help you program. It lets you use many of the BASIC utilities, such as MetaBasic, Basic Aid, renumbering, find and replace, merge, seek, scan and destroy, etc. It allows you to document your code (try that in assembly!) so you can make sense out of this nonsense. In short, it is an M.L. programmer's delight! It allows you to relocate coding (not always an easy or pleasant task) by simply changing a number at the beginning and reassembling it. While it assembles it checks for typo errors (not logic errors) and reports any errors to screen or printer.

However you cannot simply load "L.A.D.S. source" and type RUN or you will get a syntax error. The coding, like BASIC, has line numbers. However, that is where the similarities end as the rest is similar to M.L. coding.

For beginning 128 M.L. programmers I rate this a BIG 9 out of 10.

 Title- Mapping the Commodore 128
 Author- Ottis R. Cowper
 Publisher- Compute!
 Cost- \$24.95
 Level- Intermediate to Advanced M.L.
 Pages- 690

This book is primarily a reference guide. It does a very good job of explaining the operating system. The layout is much like a New York Phone book. The addresses (in both decimal and hex) are in bold print along the top of all pages. Each memory address is explained well. It gives examples of M.L. when necessary to explain the location fully. A well laid out appendix gives you common and equivalent addresses for cross reference from the 128 and 64, as well as a numerical order index of common routines for BASIC and Kernel. It doesn't have much to read as far as articles go, but that is not its real intent. I have found it beside my computer during a programming session many a time.

For the advanced 128 M.L.'ist, I rate this a 10 out of 10!

Barry Bircher



by Richard Maze

Book: Commodore 64 Graphics and Sounds
 Author: Timothy Orr Knight
 Publisher: Howard W. Sams & Co., Inc.
 Cost: \$12.95 Can.



This book has the objective of showing the graphic and sound features available for the C64. In its 128 pages it tries to show bit-mapped graphics, three-voice music, multicolored sprites, collisions between sprites, sound effects, multiple graphics combinations, low-resolution graphics, high-resolution graphics, and three dimensional graphics.

I feel that the book, although it does (somehow) all of the above, is very superficial. The assumption is made that, because they have shown how to make a three-dimensional box the reader can now make any three-dimensional object he wants simply by modifying their program. The user's guide for the C64 contains most of the information outlined and the programmer's reference guide contains all this information and more.

I recommend that you NOT waste your money on this book. There are far better and more helpful books on graphics & sound available.

 Book: Mapping the Commodore 64
 Author: Sheldon Leemon
 Publisher: Compute! Publications, Inc.
 Cost: \$14.95 U.S.

This book is a comprehensive guide to the memory of the C64. What makes this publication more valuable than other memory maps that have previously been published is the description included with each memory location. Rather than just indicate the memory location (in both decimal & hex) and its use, this book also indicates options that are available and what values in the memory location gives these options.

Whether you are programming in BASIC or ML you will find this book extremely useful. The values and explanations given for each memory location make it possible to access memory and routines that normally are not thought to be available.

If you write programs for the C64, you should have a copy of this book. I strongly recommend it.

by Ken Danylczuk

 Book: COMPUTE's Music System for the Commodore 128 & 64 - the Enhanced Sidplayer
 Author: Craig Chamberlain
 Publisher: COMPUTE! Books
 Price: \$26.95

This book/disk combination sells (through the mail) from Compute! Publications. It is SUPERB, simple but very powerful music entry system for the C64/128 computer. although it seems awkward at first, especially for someone with previous musical knowledge, it is remarkably simple for a "first time user" to enter music from music sheets or books and replay the music through the SIDPLAYER, having a great deal of fun in the process by altering sounds used by the SID chip (an excellent SID editor is included on the disk) and by varying tempo and repetitions. The music is NOT stand-alone, but the SIDPLAYER program needed to play the music composed IS a PUBLIC DOMAIN program readily available. There is a literal "forest" of PD music available for SIDPLAYER or most BBS's. The book provides excellent documentation for using the SID EDITOR and music entry system. It deals carefully, slowly and completely with each element of the program, moving from beginner material to advanced. It has an excellent index and a chapter full of useful hints and tips. Worth every penny spent!!

Book: The Big Tip Book for the Commodore 64/64C/128
 Author: John Annaloro and Bert Kersey (the Beagle Brothers)
 Publisher: Bantam Books
 Price: \$22.00

This is a superb reference book: one that any commodore owner would thank you for many times over. It's really just a giant "neat tricks" book, showing anyone from newcomer to "pro" something they NEVER KNEW about their machine. I thought I knew most of the clever things to be done with a 64, and I found page after page of NEW, weird and wonderful things to try (and they all worked!). Hacker Heaven!!

Book: Commodore 128 Tricks and Tips
 Author: Tobias Weltner, Ralf Hornig and Jens Trap
 Publisher: Abacus Software
 Price: \$24.00

This book/disk combination sells (through) one H--L of a book!! A MUST for any budding 128 hacker! The material is enjoyable to read (the authors had a decent sense of humour), and easily understood by novice and "pro" alike. Just like the book above, if you think you know lots about the 128, this book will make you think you've forgotten a lot. I found a useful tip, hit or routine every two or three pages! The book is organized into chapters on Video, BASIC 7.0, Sound and inner workings, protection, the datasette (yep, it works with a 128), the Keyboard, general structure, disk drive commands, changing the OS, and the 64 mode! The perfect gift for the new or seasoned 128 user.



MAGAZINE REVIEWS
 by REAL CHARRON

TWIN CITIES 128: The Commodore 128 journal

North America's only 128 specific journal is published using C128 hardware and software only. It publishes as often as possible (not monthly).

Its contents are unbiased and informative. It keeps us abreast of changes in the 128 world.

Its columns consist of:

Rumors/opinion/mayhem
 C128 Price & progress report
 Reviews
 Technical Information/tips
 Basic 8 information/tips

A "must" reading for 128 owners.

The cost is: \$25 us for 12 issues
 The address: TWIN CITIES 128
 P.O. Box 4625
 Saint Paul, MN 55104



GEOWORLD: The definitive magazine about GEOS.

Geoworld is another specific magazine. It is directed to the GEOS user. It informs you on all you want to know about GEOS and its application programs.

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 The address: GEOWORLD
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new cugs disk Library additions

BUGS GAZETTE #28

THREE-D SPRITES
 3D SPRITES.16384
 3D SPRITES.BAS
 SHELL BOOTER/128
 DOS SHELL
 SHELL.BOOTER
 CRIBBAGE/128
 SPEEDCHECK/128
 PATTERN FILL
 PATTERN.49152
 DISK PACKAGE
 DISK PACKAGE.OBJ
 INTERFACE (1764)
 INTERFACE.OBJ
 GEOCONVERTER
 QUICK CLOCK
 ML BOOTMAKER
 BOOT.MAKER
 BOOT.EXE
 GENBOOT.EXE
 LINCOLN GREEN
 LINCOLN GR.OBJ
 GRAPHIC DUMP
 MCGD
 MCGD.KOALA
 LAVA FLOW
 LAVA FLOW.49152
 MULTISORT/128
 MULTISORT DEMO
 *SORT0
 *SORT1
 BOOM AND BUST
 B&B.ML
 COMPUTAG
 SCREENIUS
 SCREENIUS.OBJ
 NOTEPAD
 SPEEDPRINT
 SPEEDPRINT.BAS
 SPEEDPRINT.ML
 SP FONT EDITOR
 FONTCU/CURSIVE
 FONITT/ITALIC
 FONIST/STANDARD
 SPEEDSCRIPT 3.2
 COMPRESSOR 64
 COMPRESSOR
 COMPRESSOR.49152
 SCORPION II
 SCORPION II.OBJ
 RAM SAVE
 MAZE MASTER
 MAZE MASTR.49152
 TEST SORTER/128
 BLOCK OUT/128
 SPRITES
 CUSTOM BOOT/128

RALLY RACER
 RALLYCODE
 NOTEPAD 64
 NOTEPAD.49152
 SPRITE KILLER
 SPRITE KILL.OBJ
 SUPRATECHNIC
 SUPRATECHNIC.OBJ
 SUPRA.DEMO
 QUOLERUS
 QUOLERUS.ML
 QUOLERUS.SPR
 GEOS COLUMN
 FONT GRABBER
 FONT IDX
 MAGNIFIER
 MAGNIFIER.OBJ
 EASYLOADIR

GRAPHIC 13 #GM

KANGAROOS
 ACT 1
 ACT 2
 DON'T TIE ME
 THE GREAT ESCAPE
 CAVERN/
 SMALLPIC1/
 NEBULA2/
 NEBULA/
 CLAW/
 ABSTRACT1/
 RED ROCK/
 DEATHSHEAD/
 POLLEN3/
 GAS64
 DESC.GAS128&64 S
 COLOR CRAFT
 COLOR CRAFT.OBJ S
 FLYINGFISH
 SANXION DEMO

GRAPHIC 14 #GN

CAD 3.0
 PRMND
 WCMND
 USRPKG
 SYSPKG
 SYSPKGII
 FIGURE DRAW
 CADD03.TXT S
 SHUTTLE.RLE S
 FURNITURE.RLE S
 SHUTTLE2.RLE S
 SPRINT
 INFORMATION

