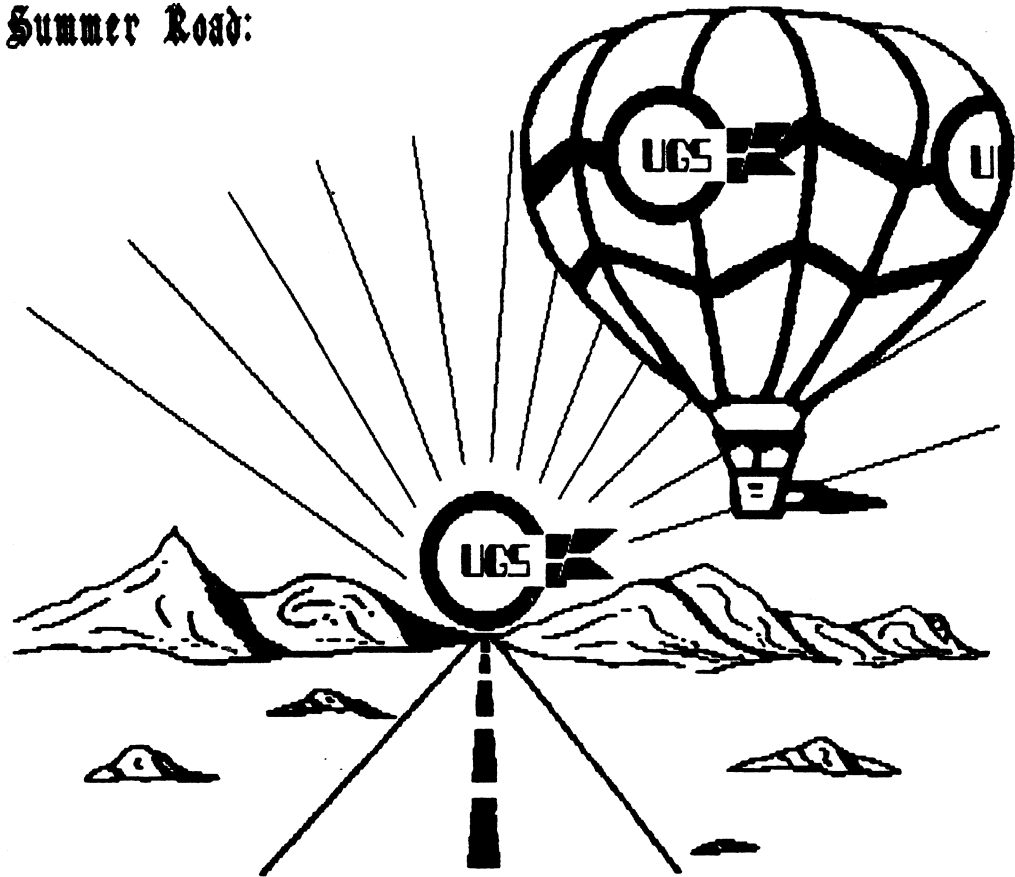


# C.U.C.S. MONITOR

Summer Road:



Vol. 3 #6

June '88

OBLIGATORY STUFF

PRESIDENT	Richard Maze	586-3291
VICE-PRESIDENT	Barry Bircher	359-1925
TREASURER	Harry Chong	
LIBRARIAN	Earl Brown	543-2068
ASS'T LIBRARIAN	Steve Bogues	
EDITOR	Ken Danylczuk	545-0644
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:

- MAZE'S SUMMER DAZE - Richard's summer plans
- MEETING PLACE - Date, Time, Place, Agenda
- EDITORIAL - Gutenberg again!
- ON OR AND AND OR OR? - Bircher on bits!
- SIR RICHARD'S (BASIC)- Spring cleaning?
- SCRATCH 'N' SAVE - A "blue ribbon" note!
- BITS AND PIECES - The debut of CHINA MOUSE
- IMPORT INFO - Hints from down south.

Computer ~~xxxx~~ ZIPPER ~~xxxx~~ IN THIS ISSUE NO  
WISDO NOTE:  
OUR A E OLI  
Housec OG 000  
0000  
Str Ric Ball Me  
Place Bulletin  
Houseciding for Your Computer ~~xxxx~~ ZIPPER ~~xxxx~~ IN THIS

**Editorial:**  
**GUTENBURG AGAIN**

Wwwellll, this makes about two years for me. Two years as editor/typesetter/contributor to the CUGS MONITOR. With this last spring issue I felt the urge to "wax poetic" on what has become a "hot topic" in computing, no matter what machinery you're working on - DESKTOP PUBLISHING.

First, as my credentials I would point out that I was doing DESKTOP PUBLISHING before it was DESKTOP PUBLISHING. This past year software distributors have literally fallen over themselves to produce THE definitive DESKTOP PUBLISHING software for any of the major machines, from Atari to MS-DOS equipment. I've already commented on the role that personal talent plays in successful "home" publishing; for this article I'd like to make a few comments on the "state of the art" (the software art, that is).

The title, GUTENBURG AGAIN, is a reference to a gentleman who is acknowledged as a keystone in the printing life of man. Contrary to some misunderstanding, Gutenberg didn't invent the PRINTING process; that was developed centuries before by the Chinese! Gutenberg developed a system of MOVABLE TYPE that permitted editing and flexibility in the printing process. His "invention" led to inexpensive (relatively) and efficient printing of large documents (such as his first project - the Bible). Today our vast libraries and book availability are in part his accomplishment.

My research didn't reveal a single name, but the title of GUTENBURG II must go to the man who invented movable TEXT (the first word-processor). What Gutenberg (I) did for the publishing industry, this nameless fellow did for the HOME publishing genre. He was the man who made it possible (today) for anyone with a computer and a relatively few dollars for software to produce a printed page (or pages) of a quality to rival the commercial printer. True, unless you want to spend a bundle on a printer or typesetter, the quality is still a little blocky and doesn't have the crisp outline of printed text and graphics. Still, the result from some of the recent DESKTOP PUBLISHING programs, even on a 9-pin dot matrix of ancient vintage can be remarkable in the hands of skillful printer.

Calling on my vast (2 years editor, 4 years as a teacher) experience in printing documents with computers ranging from a single graphic-laden memo to a 300 page teaching manual, I would make the following suggestions to any budding editor/printer out there anxious to get ink on his thumbs.

First, remember what I've said in a previous article - not everyone does it well - that's why the sales of DESKTOP PUBLISHING have skyrocketed, but the printers are still in business - fancy software WON'T make a great document - so be prepared to work harder at it than simply typing another term paper!

Next, get the best package that you can afford (several will be talked about this meeting). Don't get excited if you can't afford to buy yet another piece of software

- take a look at what you've got, and compare it to what you need. If all you'll ever print are birthday cards and garage sale signs you don't need the sophistication to print text with high resolution graphics in several fonts at once. Before you buy, try to do what you want with what you've got! You might surprise yourself!

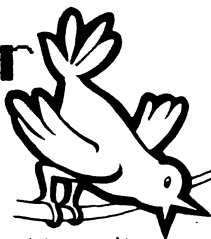
I've had people come up to me several times over the last 2 years with comments like "How did you get that cover?" or "What graphic program let you put that text in?" The embarrassingly simple truth is, I discovered that I could roll the paper in my dot matrix (6 year old) Gemini 10X backward and reprint on top of something already printed. I also discovered that a copy machine doesn't care how many different pieces of paper are combined in one document - they copy as if it was one piece of paper, permitting a "paste-up" document to appear as a complex graphic/text combo. "Ah-ha!", you cry, "Cheat, unfair, deceptive!" And I reply, "Nope, just effective!" (and well within my meager budget.)

The operative word is effective - your aim in DESKTOP PUBLISHING should be to create an EFFECTIVE document - however you do it. If the tools are all integrated into one magical PUBLISHER program - great! Chances are you'll find, as I did, that mix 'n' match works best and allows total freedom in document production!

If you've got something to say, and you can't afford to publish it YOURSELF, just send me a handwritten copy and I'll see you get in print and read by up to 50 or more people with a sincere interest in computing - no fuss, no muss, no bother! You won't even need a desktop!

# Maze's Summer

**Daze:** by R. Maze



# Bits 'n' Pieces

the Debut of CHINA MOUSE!

Summer is upon us and CUGS will be taking its traditional break for the months of July and August. Over the summer, the executive is going to try and get all the club disks updated and, if we are lucky, get a new disk catalog printed. Ken is also planning on publishing a summer issue of the newsletter. I also hope to have the bulletin board operational by the latter part of June, so that a forum will exist for members to keep in contact with each other over the summer.

The months of July and August are also when I manage to get my own act together. It is during the summer that I get my own serious program writing done. A couple of projects I have planned for this summer include writing a couple of tutorial programs in Chemistry for use in my classes next year. I also want to modify my label making program to make it usable by more printers. If I have the time, I think it is about time that I truly learned machine language and how to get the most out of my C64.

For many people, the summer months are a time to pack the computer away until September. For me, it is probably the most work my computer will do all year. Have a good summer! See you in September.

## MEETING PLACE:

### AGENDA:

A Club BBS - an interim report by Richard

A Look at the 1581 drive  
(Steve Bogues)

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

Putting yourself into print - for peanuts!"  
A look at DESKTOP PUBLISHING for the C64/128

## See you in SEPTEMBER!!

SEPTEMBER MEETING

WED. SEPTEMBER 7 7:00 pm

Northwest Leisure Centre Room

The September meeting time has not officially been determined at this time. Confirmation of our booking of the facilities will probably come during the month of June.

Watch for more up-to-date details in the summer issue of the newsletter.

A bunch of us were sitting around one cool evening, just gabbing, talking about things in general. The topic of how to use a word processor to write a resume for a job application came up. The gentleman who explained the process in great detail was very explicit. The explanations were very lengthy and exhaustingly dry, and I was on the road to slumberland ... zzzzzzz ... drive slipping ... faintly. My ears perked up and I roused myself to ask what they were talking about. They told me I'd been snoring my head off for over half an hour, and that the topic now was a dissertation on computer maintenance. So, I'm gonna bend your ears with some of the tricks and tips gleaned from the PRO'S!

Do the following only after your DRIVE has outlived its warranty. If it tends to slip out of alignment regularly ... take your case apart and drill two (2) one inch (1") holes directly over the STEPPER MOTOR screws [hoo boy, this will void your warranty!]. You can then adjust your drive without taking it apart.

Another tip on how to delay or prevent your DRIVE from going out of alignment - place a dab of SOLDER or CRAZY GLUE between the lobes of the MOTOR CAM neatly. Make doubly sure that the SOLDER or GLUE do not interfere with the bumping of the LOBE against the STOP. If you have 2 DRIVES ... it's very handy to install a small MICRO-SWITCH above the DISK door of the DRIVE ... run 2 wires from the SWITCH to the JUMPERS on the circuit board that control the DEVICE NUMBER (see your instruction manual). Cut the JUMPER of the DRIVE and then solder the wires so that the SWITCH can be used to change the drive from DEVICE #8. to #9.

Now, if you're cramped for space...use a MICRO-SWITCH to move your POWER SWITCH from the back to the front.

Another very handy TIP ... a neat way to format and write on the back side of a disk without defacing the disk by punching a WRITE-PROTECT hole. LOOK at the BIG, FLAT, WHITE PLUG next to the plug which has the wires from the GREEN LIGHT connected. See the first two(2) wires in this plug - the 2 closest to the front of the DRIVE? These wires lead down to the WRITE PROTECT SENSOR. If you install a MICRO-SWITCH that will connect these 2 wires when flipped, you can FORMAT and WRITE on the back side of any disk without punching any holes. With the SWITCH OFF, the DRIVE will function normally.

## CUGS Prize Draw '88

### RULES:

Paid up members for 1988 only will be eligible.

Draw will be made at the end of each meeting.

The winner must be present at the meeting to claim the prize. If the drawn member is not present, further draws will be made until the prize is distributed. All prizes must be accepted as is - no substitutions permitted.

The membership list will be updated at break during each meeting so that new members will be included in the draw.

Prize for June draw - CalcResult spreadsheet program

May winner was - Ken Pasiechnyk

# OR or AND and OR

## Of ..... by Barry Bircher



When does 7 and 3 = 3  
 3 and 2 = 2  
 2 and 1 = 0  
 49 and 15 = 1

When it's your computer doing the Arithmetic.

In this column I would like to explain some problems that some BASIC programmers have working with PEEK and POKE statements that use obscure words such as "AND" and "OR". The key statements I am referring to are lines such as this;

POKE(53269),(PEEK(53269) and 8)

The above statements appears in many sprite control type of routines in BASIC. All the above is saying is "turn off all sprites except Number 4".

Now... already I have probably lost a lot of you, but stick with me and I will help you get a better understanding of the computer you bought.

First off, you must understand that the computer does not understand the way humans count. It only understands 2 things -

ON/OFF  
 YES/NO  
 HIGH/LOW  
 TRUE/FALSE  
 1/0

To be totally fair, it only knows if a circuit is ON (energized/powered) or OFF (de-energized/no power). We humans give many different meanings to this "on or off" state, thus there is some confusion. We are not satisfied with this two "bit" stated affair, as we need more than just one ON or OFF to be of any use. So, we combine 8 of these ON/OFF "bits" to make a "byte", then we allow each of these bits to hold a value or be weighted in much the same way as our familiar decimal number system. For example, the decimal number 1,538.

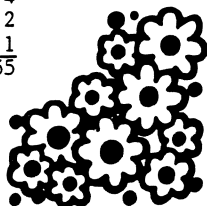
We know from grade one or two that;

the number 1 in the 4th place represent. 1000 units  
 the number 5 in the 3rd place represent + 500 units  
 the number 3 in the 2nd place represent + 30 units  
 the number 8 in the 1st place represent + 8 units  
 = 1538

Each number has a weighted value factor of 10 for each place holder to the left of the units (least significant digit)

Now, take the binary number 11111111 (not 11,111,111 in decimal). Each bit has a weighted value factor of 2 for each place to the left:

the leftmost digit has a value of 128  
 the next digit has a value of 64  
 the next digit has a value of 32  
 the next digit has a value of 16  
 the next digit has a value of 8  
 the next digit has a value of 4  
 the next digit has a value of 2  
 the next digit has a value of 1  
 = 255



The maximum number a byte (8 bits) can represent is 255. This is a very important point to remember. It is the manipulations of the 8 bits here (turning them on or off) and converting them back to decimal that causes strange things to happen with the keyword "AND".

The next thing to remember is that the AND statement means to "mask out" certain bits. To explain: to AND one bit to another, both have to be "ON" in order for the result to be ON(/TRUE/YES or whatever).

e.g.:

	1		1		0		0
and	1	and	0	and	1	and	0
=	1	=	0	=	0	=	0

To paraphrase: bit X "AND" bit Y must both be ON to be TRUE.

Now carry this idea to the 8 bit byte:

e.g.:

	Binary		Decimal
	10101010	=	170
and	01110110	=	and 118
=	00100010	=	= 34

The net effect of ANDing a byte is to MASK OFF specific bits. When you convert the numbers back to decimal is where you see the unusual effect of ANDing. Yet, if you look at the binary, it all makes some sense.

Now, the question is WHY you would want to AND something. In several places in the 64 or 128 the manufacturers were smart and gave certain bytes the power to control several things with one byte. For example: location 53269 is able to control whether or not a sprite will be shown.

(a "1" bit means the sprite will show)

The first bit (weighted 1) controls the sprite #1  
 the next bit (weighted 2) controls sprite #2  
 the next bit (weighted 4) controls sprite #3  
 the next bit (weighted 8) controls sprite #4  
 the next bit (weighted 16) controls sprite #5  
 the next bit (weighted 32) controls sprite #6  
 the next bit (weighted 64) controls sprite #7  
 the next bit (weighted 128) controls sprite #8

So, one BYTE is able to control all 8 sprites. If you wanted to turn off only sprite #8, then you would AND this memory location with 01111111 (127 decimal). In this case, however, it may be easier to just subtract 128 decimal. Now, let's say that you want to turn off sprites 8, 6, 5, 3 and 2, yet leave sprites 7, 4 and 1 alone (as they were regardless of their state [on or off]). It's a simple matter to AND location 53269 with 73 (64+8+1=73).

eg:

	11111111	-All sprites enabled	(255)
AND	01001001	-mask OFF 8, 6, 5, 3 and 2	( 73)
=	01001001	-leave 7, 4 and 1 as they are	( 73)

BASIC statement to do this is -

POKE 53269,(PEEK(53269) AND 73)

We are taking the value currently in 53269 and masking OFF bits 8, 6, 5, 3, then putting that value back into location 53269. This location, which is scanned repeatedly by the VIC Chip, tells it to display only sprites 7, 4 and 1.

Next issue I will explain a little about the "OR" effects on bits.

See you then.....B.B.

# IMPORT INFO:

submitted by Earl Brown

INFOBITS

Robert Ifland

(from THE HACKER RAG

(Kankakee Hackers Commodore User Group Newsletter) )

Want a silent, smooth running 1541 disk drive? Get a small tube of white lithium grease. Got mine at Kmart (read "Woolco"). Squeeze out a small dab onto the end of a toothpick. Apply to each of the two plated rod rails that the read/write head/pressure pad assembly rides on. After a few passes of read/write/or what have you ..... you will have to look at the red LED light to confirm that your drive is running! Less chance of read/write errors to boot!

Got read errors on your 1541 disk drive? Does the utility performance test give some bad, some good reports of your drive? Before you send your drive in for repairs ... before you purchase a disk drive alignment program ... try this! Get some of those stick-on felt pieces sold in discount or hardware stores, used to protect furniture from scratches or other surface damage. They are applied to bottoms of lamps, ashtrays, etc. Only this time you cut a small piece out and press it to the bottom of the disk drive pressure pad assembly. The added thickness and additional pressure just might be all that was needed to bring back your drive into correct "alignment"! Correct reads and writes once again! No kidding ... that's all it took to fix my drive!

The Commodore C-64 computer is more than well buffered to protect against usual and not so usual electrical surges and spikes. I have had my C-64 on for more than 3 consecutive years with the exception of the utility line power cutoffs, shutdowns, etc. This capability without damage allows me to have ready access to preloaded datafiles. No reloading of programs ... it's there already ... waiting for my need! A great machine the C-64. Not a toy ... a UTILITY to be used ... a computer. The writer purchased a fastload cartridge of recent availability that works fine for him. It's the Better-Working TURBO LOAD and SAVE cartridge from Spinnaker, \$20 at Target stores. It's fast (\*5) and doesn't corrupt sequential files, which my old Epyx Fastload cartridge did. Also has fast directory-pull without losing program in memory + Basic 4.0 and more. I love it. You might too!



## Spring Cleaning by Richard Maze

At school, one of our C64's was developing a fairly common problem - nonfunctioning keys. I decided to try cleaning the contacts myself to get this computer back into use. Before I describe my adventures with this process, you should realize that I am not mechanically or electrically inclined at all. A soldering gun in my hands usually means that some electrical component somewhere is going to die.

I started by disconnecting the computer completely and turning it upside down. The message "attempted repairs by unauthorized persons voids warranty" didn't scare me because the computer was long past its warranty expiry date anyway. With my Philips screwdriver in hand I removed the three screws holding the case together. Lifting the case up and unhinging the back joints I was almost able to completely separate the two halves. There were two wires preventing me from doing this. The first runs to the power on indicator light. Following this back to the bottom half of the case I found a plug I could disconnect. The second is really a bundle of wires running from the keyboard to a long plug on the bottom part. Disconnecting this plug completely freed the top half containing the keyboard from the bottom half containing everything else.

I put aside the bottom part and layed the keyboard section in front of me with the keyboard facing down. The keyboard is held into the case by eight screws which run along either edge. Removing these screws allowed me to lift the keyboard out of the case, which I could then set aside. To be able to get at the key contacts, the backing board, which is etched with circuits and contains the contacts, must be removed from the keys themselves. This is done by removing all 23 small screws which hold this board in place. Also, if you want to remove the board completely, you must either cut or desolder the two wires which connect the RUN/STOP key. Since the keys I wanted to clean were on the other side of the keyboard, I didn't have to disconnect the RUN/STOP key as I could reach the contacts and key surfaces by lifting the board slightly.

Using a Q-Tip and rubbing alcohol (ed. note - isopropyl alcohol is better; rubbing alcohol can leave a film), I cleaned off each of the contact plates on the circuit board. I used a dry Q-Tip to rub off any extra alcohol residue that might have remained. When the key is depressed, a rubber pad in the center of the key goes

into the key allowing the contact on the edge of the ring around the center pad to contact the contact plate. I cleaned each of these in turn by pressing the key and wiping the edge ring with alcohol. I also dried these off with a dry Q-Tip to remove any residue alcohol. Now was the time to find the success of my work. In reverse order, 23 screws reattached the circuit board backing back on to the keys. Another 8 screws reattached the keyboard to the top case. Two plugs attached the power on indicator and the keyboard controls. Three more screws attached the two halves of the cases together. Once all the connections were made I plugged the computer back in and turned it on. The ultimate test - all 8 keys that were sticking were working fine. I could multiply again, the equal key worked as did the "?/" key. My adventure in repair was a success.

Materials: Philips screwdriver, rubbing alcohol, Q-Tips.

Total time: 15 minutes from start to finish.

I bet I could do the next one in 10 minutes now that I know what to do.

Money saved - ???



# SCRATCH 'N' SAVE

by Earl Brown

At our last executive meeting it was brought up that once the club has purchased a 1571 disk drive the next purchase could be a re-inking machine for printer ribbons. The club as a unit could make good use of such a machine since practically the majority of club members do own at least 1 printer (The most popular computer program in general for home use is a word processor). At about \$10 a cartridge, a re-inker for the club could be a very popular item.

Until this re-inker does become a reality, don't throw away any of your printer ribbons. While you're waiting for it, it's a simple matter of taking your cartridge apart (don't break anything and observe how the ribbon is moving on its tracks and whether or not it has a twist in it). Once open, spray the top side and bottom side each with a squirt of WD-40 lubricant from about a foot away. Seal it in a plastic bag for a couple of days, reassemble it, and try it out. It should work like a charm as long as the right amount of lubricant was applied. You can do this about three times before you actually have to re-ink the ribbon. The reason is simple. The lubricant on your ribbon eventually dries out long before the ink is used up. Hence, relubricating restores the dried ink on your ribbon. By the way, wear a pair of rubber gloves if you want to avoid inky fingers.



## New CUGS

## Library Disks:

TEXT GAMES 9 TI    SOUND 12    SL    GENERAL 12    ML

CUGS LOADER  
CUGS DATA

SPRINT IV  
READ ME  
GAME  
MAINTENANCE  
LINKER  
TOPIC  
X-TRIVIA  
X-ODD COUPLE  
TRIV/TOP/EXP  
X-GEOGRAPHY  
X-SHOW BIZ  
X-LEISURE  
X-HISTORY  
X-LITERATURE  
X-SCIENCE  
CONTGAME  
SEQ READER  
HITCHHIKER SOL  
CAVES.C  
THREE OF A KIND  
MASTERWORD.C  
BUREAUCRACY  
?BUREAUCRACY  
?BUREAUCRACY  
PICTURE MATCH  
WORD BLANKS  
ALPHA-MATCH  
ALPHABET SOUP  
ONERR.BAS

CUGS LOADER  
CUGS DATA

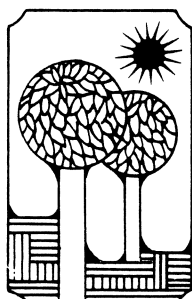
BLINDED SCIENCE  
GO ALL THE WAY  
SHEET MUSIC.C  
SHEET DATA.D  
ENHANCEDSIDPROMO  
COMMODORE.MUS  
HORROR.MUS  
BOLERO.MUS  
PASSEPIED.MUS  
FUER.MUS

GRAPHIC 13    GM

THE ART SHOW  
DISSOLVE  
LOGO  
?PIC A CBM LOGO  
?PIC B BONANZA  
?PIC C GIRL  
?PIC D EAGLE1  
?PIC E EAGLE2  
?PIC F LEBOLD  
?PIC G SKIER  
?PIC H PLAIN  
?PIC I MOONLITE  
?PIC A ROSELLA  
?PIC B VALK  
?PIC A GRAPHICS  
?PIC B BEARS  
?PIC C ETLANCE  
?PIC D STARSOK  
CSLIDE

CUGS LOADER  
CUGS DATA

GROCERY LIST  
TEACHERS PI/CAL  
PI/CAL  
CBM 8032 V3  
PI/CAL.DOC  
MARKSFILE  
#INST  
#HAMQ1  
ALPHA.BOOT  
PLAY/FIND  
ALF  
C/ALPHABET WAR  
POEMS  
TAROT CARDS  
DOC  
BARTENDER  
DRINK RECIPES  
SPRINT IV



GENERAL 13    MM

PENT INST.C  
PENTOMINOS.C  
LIFE 2.C  
LOTTERY NUMS.C  
LIST-ME LOTT.L  
LOTTERY.C  
LIST-ME 6/49.L  
LOTTO 6/49.C  
MUL MASTER.C  
SPELL.C  
SPELL1.1/15  
TYPE TUTOR.C

CROSSWORD 7/ML.6  
CROSSWORD 7.Z  
CROSSWORD 7 IN.Z  
CROSSWORD INS1.W  
CROSSWORD INS2.W  
CROSS.PF.MAKER.Z  
CROSS.PF.INS 1.W  
CROSS.PF.INS 2.W  
CROSS.PF.INS 3.W  
CROSS.PF.INS 4.W  
CROSS.PF.INS 5.W

PF-MX80 I.D  
PF-MX80 III.D  
PF-1526.D  
PF-2022.D  
PF-GEMINI.D  
PF-8023.D  
PF-PROWRITER.D  
PF-RX80.D  
PF-MPS 801.D  
PF-MT160/180.D  
PF-TEO PX80.D  
PF-4023.D  
PF-SPIRIT 80.D  
PF-6400 ASC.D

ARCADEGAMES 14 AN

ZETA 7  
ZBOOT  
11C64  
BIT MAP  
PROG  
-----  
SNAKE!  
SBOOT  
22C64  
-----  
CREATOR'S REVENGE  
CBOOT  
33C64  
-----  
GALACTIC CONQUEST  
GBOOT  
GC.BIN  
44C64  
GALCON  
VECTOR  
MUSIC  
-----  
TREK!  
TBOOT  
55C64  
-----

GRAVE ROBBERS  
GRBOOT  
66C64  
-----  
BOUNTY HUNTER  
BBOOT  
77C64

