

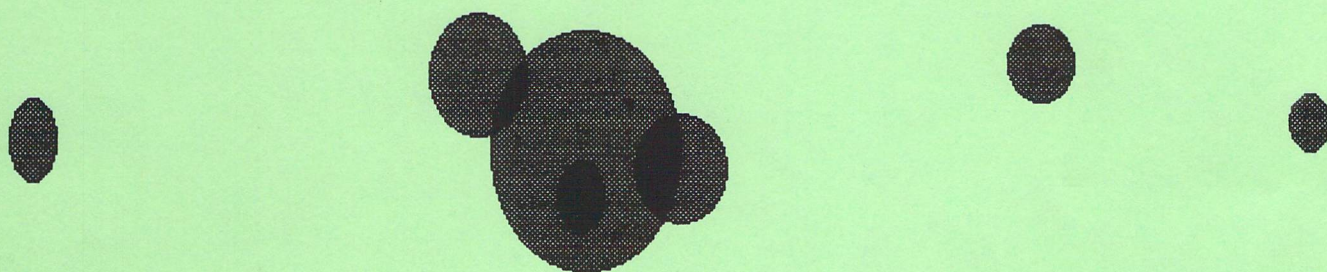
March 1993
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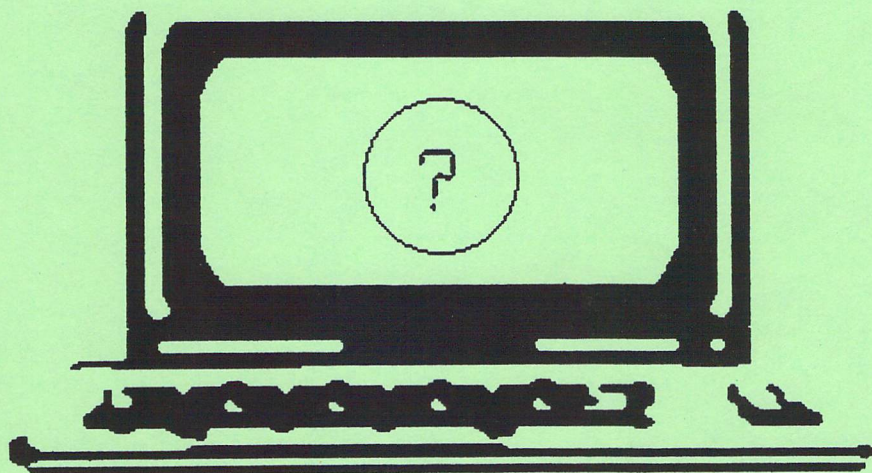
dieHard

the Flyer for commodore 8biters

Script!



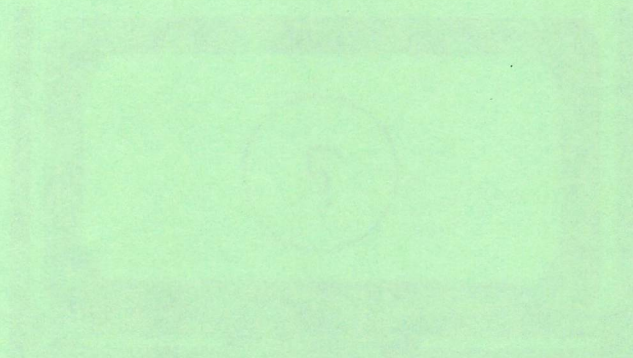
Reviews
More DOS & Don'ts
geotips
Reader Survey
And more...



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byahlsib

central government of india



GOVERNMENT OF INDIA
MINISTRY OF DEFENSE
NEW DELHI

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View From The Underground

by

Brian L Crosthwaite



Well, we have been trying like the dickens to get this issue out on laser, but have not found a reliable Post Script file making program, we've tried Jim Collette's **PS.Patch 2.0** with no luck. Help!

I finally got to see the review of **dieHard** in **COMPUTE**. Well, at 4am I must admit, I am an atrocious speller (I start work at 4am). However, we do spell check even the little stuff, it's just that in the **Oops** issue the sections - what Christian Fleming refers to as our in-house ads - were typed up in a fury and crammed in at the last possible second to meet our deadline. We do try to be accurate.

Let me clarify the lower case "c" on **commodore** thing. It is *not* out of disrespect, it is *not* because we feel that Commodore has deserted the 8 bit computers. It *is* because on the cases of all their 8 bit equipment the word is spelled with a lower case "c" and not a capitol. When you see the lower case **commodore** it should be in boldface and it is probably referring to specific equipment. If you see the upper case Commodore and it is not in boldface, then we are probably talking about the company or Commodore in general. It is, in fact, a term of endearment rather than one of disrespect - I love these old 8 bits!

This month's **PAPSAW** is a discussion on the writing of program's that will run on all of the **commodore** 8 bit machines, picking up where last month's **PAPSAW** leaves off. If anyone reading this has any input on the subject, let us know. Also for those who have no desire to write programs for other machines we do have a small sampling of pokes and peeks for various machines.

The submissions are starting to come in. Keep them coming. Programmers published will receive a free issue of the **Flyer** and a free issue

of the **Spinner**. Send them to **dieHard**, P. O. Box 392, Boise, Idaho, 83701. Unless you inclose \$2 for shipping and packaging we can not return your disk, sorry.

Due to some really major mess ups, last month's **PRG** is being rerun this month. The lower case "c" and the fancy brackets { } look very similar to say the least. Also, some lines of code got messed up somehow. It has to do with the way **geoPublish** deals with text boxes and rippling. Anyway, I apologize to everyone for letting it get passed me. My rough looked ok, it wasn't until latter that the files got messed up. It probably was a glitch when I copied them from 1581 to 1571 format. Ok, ok, I've gone on enough!

For those interested, there will soon be a disk available called **The dieHard's complete PD toolkit**. What this disk will consist of is Public Domain (PD) programs that can make life easier. Since the programs are in the PD these will be available real cheap (at copy cost, plus postage, packaging, that sort of thing). The program names will be listed so you don't necessarily have to get them from us. These are some titles that should be included: **Simons' BASIC, The PET Emulator, DATA Maker64** to name a few.

Blasts from the past!

That's what has been happening here. A member of our computer club recently purchased a PET 2001 computer and with it she got a huge box full of cassettes! She has loaned them to me, so I've been checking them out. It would appear that she has almost all of the first 26 issues of a cassette based magazine called **Cursor**. Consisting entirely of programs for the PET computer, some of which are simply amazing. There is one program called **Dromedai** on issue #18, that is a movie using nothing but keyboard characters. A meteorite lands in the center of town, and on-lookers

gather. It goes "click" and opens up, scaring everybody off. Soon a truck arrives and two - people I guess - get out and load the object in back and they take it to an underground laboratory, where it is discovered to be some micro sized bug. The square looking at the object (the people are little squares), runs away to the elevator and out of the building - presumably to a remote area where he or she can press a self-destruct button that blows up the lab. The creature survives. Plot sound familiar? This program even has sound! Although I can only hear it using the **PET Emulator** on my 64 as my PET has no sound.

Programs range from business applications like data bases to the little movie mentioned above. The magazines even have covers that usually have moving graphics! The first copyright date is 1978. It's kind of strange to see a copyright notice on my 64 that says 1978!

It would be nice if I could get a hold of **Cursor** or someone responsible for the program's copyrights and see if we couldn't share some of these with our readers. If anyone has any information regarding this or any other magazine or program that might interest our readers send it to me. This could be anything regarding the PET or any Commodore computer.

While I'm on the subject, are there any SuperPET people out there. Our Fog Committee needs input. Even though this is a 16 bit machine, we will support it. It probably has something to do with that lower case "c" thing, or maybe it just looks cool.

Well, I've rambled on too much again. Keep those programs coming! Enjoy!

READY.

■

REVIEW!

by
Brian L Crosthwaite

Key.

- ***** Excellent
- **** Great
- *** Good
- ** Poor
- * Bad

IconTroller from Suncom

**** Great

I love my M3 mouse. I love my TAC2 joystick. When using **geoPaint** I often want to use a joystick, but my joystick is in port two and the mouse is in port one. I hate having to swap them while the computer is on. So I don't, I don't have to. Also plugged into port one is a small joystick-like device called the IconTroller.

It is essentially a joystick that mounts on the side of your C128, C64, 64C, or VIC20 computer. Sorry 128D users, the plug for the keyboard blocks the IconTroller's plug from entering the joystick port. I say blocks, because you could make a short port extension plug or you can buy an extension plug and use that. The cable comes out of the side of the through plug -- right where the keyboard's plug rests. It uses the standard Atari joystick plug, so it will not work on the Plus 4, or C16.

A through plug simply means you plug your mouse into the IconTroller while it's plugged into the computer. You don't have to throw any switches or unplug anything to swap devices.

While the IconTroller works like a joystick, it is not intended to take the abuse given to the average

joystick. It is intended to be used with drawing programs or point and click environments such as GEOS.

The controller has a small button much like the firebutton of a joystick. The switches inside are the same so no special driver is required to use the IconTroller. Although you can mount it to your keyboard, you don't have to, you could conceivably hand hold it or even mount it to your workbench or desk. The shape conforms to the 128 or 64C design and looks great, although the color doesn't quite match.

Mounted on my 128, I find drawing to be precise. Tapping on the stick lightly, I can easily pixel edit in any drawing program with a dependable amount of accuracy. While the controller itself is nothing more than a joystick input device, its convenience is not to be understated. You can use it on a computer that is crammed into a small work-space where a mouse just is not practical.

If you laid out the big ones for GEOS and can't afford a mouse, this is a viable alternative, as well as a space saver. They cost around \$17, which is the price of a top-line joystick. It's from the makers of my favorite joystick; Suncom. Because of the 128D draw back (they could have made the plug longer) this one gets ****

If you have some software or hardware that needs exposure send me a copy. **dieHard**, ATTN: REVIEW!, P.O. Box 392, Boise, Idaho, 83701.

READY.

Available from

Software Support International
2700 NE Andresen Road Suite a-10
Vancouver, WA 98661

TENEX Computer Express
56800 Magnetic Drive
Mishawaka, IN 46545-7481

Rarities

by
Brian L Crosthwaite

More from the underground. I'm a big fan of the 128, particularly the 128D. This month we spotlight the talents of some who are supporting this great machine.

Our first was Alf Jonassen, author of the **Servant**, who unfortunately has moved to the IBM realm. The **Servant** is a memory resident program that resides in an EPROM, either in the empty chip socket inside the 128 or in a cartridge. The program allows you to read sequential files, read directories, load and run programs, load switch over to 64 mode and run programs, power up with function keys defined to your definitions, and more. You can play around with the program loaded from disk to get the feel of whether you want it installed or not. You can then customize it before you burn it into an EPROM. For more information contact: TY/BUG, ATTN: Librarian, P. O. Box 6853, Boise, Idaho, 83707. Or you can check with your local User Group.

Next, we have Rick Kane, creator of *Earth's Only Color Commodore 128 Interleaved Paint Program* - **I Paint**. One of my favorites, this program is stupendous! It supports all BASIC 8 picture formats, as well as its own. The program does require 64K of video RAM. This is standard on the 128D, but not on all 128's, so an upgrade may be in order - it's easy, I've done it. Now I don't have an address, but Software Support International carries both **I Paint** and the 64K Video RAM. For a catalogue, write: Software Support International, 2700 NE Andresen Road, Suite A-10, Vancouver, WA, 98661.

From Silvasoft, comes **Maidstone Quest**. Written in BASIC 8, this adventure game takes you down into a multi-level mine in search of treasures and glory. The 80 column screen is full of information as well as graphics. I had a chance to look at this game, but only briefly. I'm not much on text adventures and this game works a lot like one, although it is, in fact a graphics adventure. For more information: Silvasoft, P.O. Box 1006, Charlotte, YT, 05445.

We have one last listing for GEOS fans (64 or 128). See **Rarity** on page 15.

READY.

geoTips

by

Brian L. Crosthwaite

unPub geoPublish

Need to make a geoWrite document that has been placed into a geoPub document workable again? Here is how. Create a new geoPublish document. Now, go into the page layout mode. Make a small box to fill with text in the upper left hand corner or the screen about 1/5 inch square. Highlight it and select the text gadget from the tools. Click on the document you want to fix.

Now, leave geoPub. Open the document you want to fix as a geoWrite document. Once inside, with the cursor at the top left most part of the screen, press return until any and all text goes off page one and onto page two. You can also use force page if you like.

You might not be able to delete the first page, but since page two on is full page wide, you can change the margins to any size. This method is faster than scrapping pages out to a text album and into a new geoWrite document for larger documents.

Sometimes this will not work, sometimes the second page takes on the same width as the first page. If this happens you can make the text square (in the first step) inside geoPub the full size of the page. This will ensure the document is full page wide.

Resize geoPublish

If you need to line up the text from two separate boxes (in TEXT LAYOUT MODE), use GRAPHIC mode and ZOOM first. Zoom into

the area where you think the text ends inside GRAPHIC MODE. Next move the window to the actual end of the text. Look at the ruler on the left side of the screen and note where the last word or symbol falls from the top text. It's best to give it an extra unit or two. Go to PAGE LAYOUT again and click on the arrow on the top left of the tool box. Click on the lower right corner and bring the box straight up to the point on the ruler you decided to end at. Click again and the box should be at the end. You can place the next box right up to the bottom of the first one, don't worry if the lines of both boxes overlap. Check it again in the ZOOM of GRAPHIC MODE to make sure things went well.

Sneak Swap DESKTOP

If you want to swap disks in a drive that is not open (either A or B), you can avoid that annoying sequence of events that starts when the computer prompts you to place the disk back into the drive by simply clicking on RESET after swapping disks. Instead of having to replace the disk, click OK, wait for the disk to open, close it and switch disks, then re-open the drive and THEN go back to the drive you want open, the screen will simply redraw and the new disk's name will appear under the appropriate drive icon.

Bye Files DESKTOP

The quickest way to remove a page of files is simply to select delete under the PAGE menu of the DESKTOP. The files will not become highlighted and you will not have to wait for them to be deleted one file at a time. There will, however, be a dialogue box. Just type <RETURN>. (Just a note: Viewing files by anything other than icon is usually faster.)

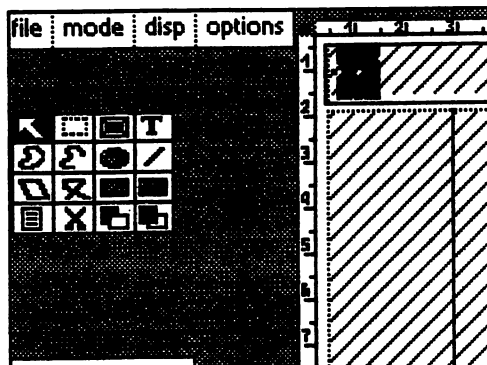
Get out of there! geoSpell

If you need to remove something from your personal dictionary do this: Create a geoWrite document with one word that you know is not in either the dictionary or your dictionary, a good misspelling like "cccccczzzzzzxxxxx" will do it. Now, spell check the document. Open your dictionary at the prompt. When you get inside, go directly to the SWITCH under the DICT menu. Now scroll through the dictionary until you find the word you don't want, then highlight it by clicking on it. Click on CUT and say bye bye to the unwanted word. Don't get too carried away, this is how book burning got started during the first one!

Spell Setup geoSpell

When spell checking, I have found that if I leave my personal dictionary on my workdisk, I don't have to worry about remembering to resave it from my REU. I load geoSpell and the dictionary into the REU, but leave the personal dictionary along with my documents on the workdisk. When I continue my spell checking from one document to the next, geoSpell keeps track of where the personal dictionary is, so it looks one the disk instead of the REU.

READY.



PAPSAW

Multi-Computer Programs Part II

or

The Incessant Ramblings of a Lunatic Programmer Gone Mad!

by

Brian L Crosthwaite

Last month we looked into the BASIC tokenizer to see what computer our program was on. Locations 772 and 773 reveal to us a unique set of numbers that we then combine into one number. This number tells us what computer the program has been loaded into. Another place to look could be the start of basic locations at 43 and 44, but this can be ineffective if DLOAD was used, because the program will be in the memory location that the program was saved from. And you know you can't save the same program from all computers at once. Besides, we may even change this to make room for another program or a sprite set for the 64 version. The conversion is:

COMPUTER=PEEK(772)+256*PEEK(773)

which should return:

35158 for the 16 and plus/4

50556 for the VIC20

42364 for the 64 (or 64C)

17165 for the 128 NOTE: I don't have any numbers for the B, P, or C 128 you'll just have to PEEK into it.

08224 for the PET 2001

NOTE: this is the value from the CBM 2001 Series professional computer. Also, the value that appeared in last month's article was incorrect, it seems 65280 is the initial value upon power up. 8224 is the value when there is program in memory. Therefore I must conclude that this address is not the tokenizer. Use this value unless you can check it and it returns a different number. Does anyone know where I can get a PET memory map?

NOTE: Fastload and other utilities will return different numbers, see Table 1 for examples of this.

The next step is the set-up routine. We need to set some variables for the different machines like screen address, color locations, et cetera. Let's use SA for SCREEN ADDRESS, CA for COLOR ADDRESS, SC for SCREEN COLOR and so on. Figure 1 shows an example of how to set up parameters for the 16 and +4. Table 2 shows the address for several of the computers you may want to program to. Note the values for the PET that are the same (and the one that says +999). This is because the PET has a monochromatic screen and to save memory space instead of using boolean logic to determine whether to poke or not to poke, I simply used the screen start address. Just ignore any graphic that may flash on the screen in the top left or lower right (+999) of the screen. It is a good idea to set colors up, then clear the screen. That way the PET's screen will be clear of any garbage.

IF CO=35158:	REM 16+4	Cartridge	Number
SA=3072: CA=2048:	REM SCREEN AND COLOR	Final Cart	57229
M=40:	REM MULTIPLIER FOR SCREEN SIZE	Simons' BASIC	33377
SC=65301: BC=65305:	REM SCREEN COLOR AND BORDER COLOR	Turbo Load & Save	49247
CC=1394:	REM CHARACTER COLOR MAKE -1 FOR MONOCHROMATIC	Super Expander 64	
SP=0:	REM 0=NO SPRITES 1=SPRITES	Super Expander 20	
GR=1:	REM 0=NO GRAPHICS 1=GRAPHICS		
XM=319: YM=199:	REM XMAX, YMAX SCALE FACTOR 1		

Figure 1

Table 1 Altered Machine Id. No.

CO	computer	SA	CA	M	SC	BC	CC	SP	GR	XM	YM	scale
35158	16 and plus/4	3072	2048	40	65301	65305	1364	0	1	319	319	1
50556	VIC20	7680	38400	22	36879	x	646	0	0	127	127	0
42364	64 (or 64C)	1024	55296	40	53280	53281	646	1	0	319	199	0
17165	128	1024	55296	40	53280	53281	241	1	1	319	199	1
08224	PET 2001	32768	SA	40	SA	SA	SA	0	0	? (39)	? (24)	0

Table 2

The program needs to be saved at 1027 (decimal). All machines will load it to their own start of BASIC, except the PET, so saving it from 1027 will allow it to load properly. Be sure to use LOAD"filename",8 -- NOT DLOAD"filename"

There are a lot of problems with getting the address change to work. I tried poking, then loading --

loading then poking, doing it in direct mode and doing it in the program. I finally got an answer by using the PET Emulator found on the TEST/DEMO disk for the 1541. This program is for the 64.

With the Emulator, I can take a program I wrote on the 64, load it and save it again and the program will now load into the right address on the PET. Of course, if you have a merge (often called APPEND) program for the PET you can use it to load the program into the right spot on the PET, simply skip loading the first program and just merge.

Now, let's talk about various aspects of multi-machine programming. There are a few things to keep in mind when programming for more than one computer. For instance, the VIC only has 22 columns across the screen, not a convenient number like 40 or 80. You could look at it as a 20 column screen, but that is even more limiting than what you had before. You could put spaces in on the wider screens to center text. Twenty columns on an 80 column monitor, however, is a bit defeating. Maybe a better approach would be to have a character that can be added to print statements to separate characters in the string to break it in half. But then you have to make certain that the at 20 or so characters into your text there is a place to split the text. I think you see my point.

Fortunately there is a solution, at least for the 80 columns on the 128. The 128 has a forty column mode, and most of the rest have 40 column screens. [The 128's 80 column screen even has a 40 column mode. (Stay tuned for this in an upcoming PAPSAW)] And there is an 4032 emulator for the 8032 machine that makes it a 40 column machine.] The answer to best fit the VIC is to make a separate screen. This is not always convenient however, even the simplest of programs may have several screens of text in the instructions alone.

This is where the VIC becomes the runner of the VIC-only version. Quite simply, if there are a great number of screens, the 22 column formatting and the small memory may

make it just plain impractical to have a given program run on all machines as well as the VIC. Text adventures are a good example.

Let's move on with our discussion. What of the 8032? The 8032 has 80 columns, it also has a 40 column mode. One way to check for this machine is to clear the screen with a print statement, then print a shifted space on the screen. Look into what should be the screen memory location for its presence. If it's there then you have a 40 column PET, if it's not there, then it is an 80 column PET. The shifted space is an invisible character on the screen. You can't use space alone, the screen is already filled with them.

```
PRINT"(CLR)":PRINT" ":rem this
                        is a shift space
SA=32768
IF PEEK(SA)+40<>96 then you
                        have computer
                        other than 40
                        column PET.
```

The first PRINT not only clears the screen, it moves the current cursor position down one. The next PRINT places the shift space on the screen exactly under the top left corner. If the screen is 80 column the computer will look into a location other than this one. Even if the SA is the same the PEEK would have to be +80 to hit this location. This works only after your program has established that it is on a PET. To check the screen mode on the 128 use: S=RGR(0). If S=5 then you're in 80 columns.

This first little trick is used on those old dull looking PD programs that Commodore flooded into the public domain. I can't tell you for sure what the PEEK into 772 and 773 reveals, right now I'm presuming that it is the same on all PETs up to the 8096. (By the way, some of those old PD programs are still amazing today!)

Of course the safest route would be just to stick to BASIC without POKES. BASIC 1 and BASIC 2 are the same, other than BASIC 1's lack of DOS. BASIC 3, 5, 4, and 7 all understand BASIC 2. This will limit your options in many areas such as sprites and high resolution graphics.

Good luck, I'm looking forward to seeing some of your programs in PRG! Until next time, I'll leave you with some PAPSAW --

PET:

POKE 59468,12 this will put the PET into upper-case graphics mode.

POKE 59468,10 puts it back into lower-case mode.

C64:

SY3 64739 supposedly a popular crash in the UK, but why...

16+4:

POKE 3C,C OR 112 will give you the colors with the same luminosities as on the 64, 128 and VIC. 3C is the screen color address and C is the color from 0 to 15. 3C can also be border color or cursor color.

VIC, 64, 16+4, PET:

PRINT PEEK(43)*256+PEEK(44) will give you the current start of BASIC. 4096 on the VIC, 2048 for the 64, 4096 16+4 (16384 on +4 when MRES is on), and 1027 for the PET is normal. I'm not sure of the PEEKs or the address on the 128, PEEKing here on my machine says that basic starts at 0.

64/128:

Need an inconspicuous place to store a number? Try 787, it'll hold from 0 to 255, and the computer does not use it. Bigger number? You can use 1020 though 1023. Try this:

```
N = INT (RND (0)*131070)+1
N1 = N/2: IF INT (N1) = N1 THEN
    N2 = N1: ELSE N1 = INT
    (N1): N2 = N1 + 1
M1 = INT (N1/256): L1 = N1 - M1
    * 256
M2 = INT (N2/256): L2 = N2 - M2
    * 256
POKE 1020,M1:POKE 1021,L1:POKE
1022,M2:POKE 1023,L2
V = (PEEK (1020) * 256 + PEEK
(1021)) + (PEEK (1022) *
256 + PEEK (1023))
PRINT V,N
```

READY.

**Reader Survey
1993**

Each year we ask our readers about their systems and interests to get a better understanding of where to offer support. We want to offer support to all machines whenever possible. Tell us about your system(s)!

Directions: Well, let's see there's North, South, ah West, and of course East. Then there are those North Wests and South Easts things - too many to get into here...

SYSTEM

1. What computer(s) do you own/use?
 - PET _____
 - CBM _____
 - SuperPET _____
 - VIC 20 _____
 - B128 _____
 - P128 _____
 - C128 _____
 - Commodore 64 _____
 - Educator 64 _____
 - Executive 64 SX-64 _____
 - DX-64 _____
 - Commodore 16 _____
 - Plus4 _____
 - Commodore 128 _____
 - video ram 16k 64k
 - Commodore 128D _____
 - Other(s) _____
2. Drive.
 - 4040 _____
 - 1540 _____
 - 1541 e II _____
 - FSD-1 FSD-2 _____
 - 1542 _____
 - Indus _____
 - MSD 1001 _____
 - 1571 _____
 - 1581 _____
 - CMD Hard Drive _____ meg
 - Datasette _____
 - other _____
3. Monitor
 - TV color b&w
 - monitor color mono
 - RGBI comp.
 - 40col 80col
4. Printer
 - _____
 - _____
 - Plotter _____
5. Memory expansion size [k]
 - 17xx _____ k_
 - GEORAM _____ k_
 - RAMLink _____ k_
 - RAMDrive _____ k_
 - other _____ k_
 - VIC Super Expander_ 3k
 - other VIC expander_ k_

6. Expansion board(s)
 - _____
7. Modem
 - _____ baud_
8. BBS name(s)
 - Q-Link _____
 - GENie _____
 - CompuServe _____
 - Delphi _____
 - other _____
9. Input device(s)
 - paddles joystick
 - mouse track ball
 - Koala pad/Animation Station
 - light pen _____
 - other _____

MUSIC

10. MIDI
 - _____
11. Euphony ver__ + Jr
 - MIDI _____
12. Stereo setup
 - SID Symphony _____
 - Internally installed
second SID chip
address _____
 - other _____
13. Other keyboards
 - _____
 - software: _____
14. Recording
 - software _____
 - hardware _____
 - other _____

MISC

15. Favorite brand of disks
 - 8" _____
 - 5.25" _____
 - 3.5" _____
16. Magazines/Disks subscribed to
 - Compute's Gazette disk
 - LOADSTAR _____
 - LOADSTAR128 _____
 - other _____
17. What do you use your computer for (rate usage 0 to 5, where 5 is most and 0 is never).
 - word processing _____
 - spread sheets _____
 - data bases _____
 - general productivity _____
 - music composition _____
 - music playing _____
 - telecommunications _____
 - adventure games _____
 - arcade games _____
 - programming in _____
 - architectural drawing _____
 - viewing computer art _____
 - creating computer art _____
 - other _____

18. What is your favorite...
 - game _____
 - utility _____
 - productivity _____
 - all time _____

19. What other computer related interests do you have?
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

20. What other non-computer related interests do you have?
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

21. What would you like to see more of in the Flyer? In the Spinner?
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

22. What don't you like about the Flyer?
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

23. Other comments, ideas, et cetera.
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____
 - _____

We'd like to see your programs! So this would be a good time to send one in, along with this survey!

dieHard, Flyer Survey
P O Box 392
Boise ID 83701

READY.



Archaic Computer

The Computer Store of the Past

by

Brian L Crosthwaite



Spring's new hope born of Autumn's decay... From the old shall arise the new, like a tempest rising from the ashes. Ok, you get the idea. I love it when things thaw out

I remember living in the dormitory in college, the long ours spent at the library, the horror of dorm food, the women. I recall the nights of the gang drinking ale (ok, we were the cultured lot -- you can't have everything), taking turns at **LODE RUNNER**. We played some of the Master Tronic games I picked up at Sears for \$5. Then there was the ever famous **Beyond the Forbidden Forest**, with its long opening sequence, great graphics and great sound. I can still hear the music of the mysterious blue orb in my head.

Later I encountered the original **Forbidden Forest**. Although the graphics are not as good, the sound and the game play is great! Then, of course, there has the ever popular **Super Huey**, which we played with religious fervor. Then I finally got **Super Huey II**, which was unfortunately, a massive disappointment. Oh sure, the graphics were killer and the scenarios were cool, but the user interface was so complex it took away what made **Super Huey** so great.

Oh sure, I studied and went to class, but this is a column of computer stuff and I was, at the time a Theatre Arts Major. Yes, I was studying the classics: Ipson, Chekov,

Shakespeare, Ranier. Speaking of classics, or at least **Solid Gold, Top 20 Solid Gold** -- no not **American Top 40** -- COSMI's collection of games from the past is definitely a blast from the past.

This is our subject matter for this month. I was going to do a write up on this package several months ago, but I could not find a dealer that carried it. I thought for sure it had gone the way of the Dodo (you know, the Radio Shack Color Computer).

Top 20 Solid Gold Commodore Entertainment Hits!

from COSMI

Over All Rating: * * * * *
Reviewed by Reviewer-doer --
Brian L Crosthwaite

First let me explain my reason for the 5 star rating. As you read on, you will come to find that not all the games in this package are super fantastic, and not all the games are really bad. Although some do fall into this category. This package is so full of history and evolution (of the 64 games and what they were like and had become) that no one with a 64 should pass up getting a copy of this package. Now on with the review.

Well, to start with, this package is packed, it's loaded and it is priced right. Now as low as \$11.95, it's a bargain that no 64 historian can pass up. The package has five disks and a book with instructions. Each disk has its own menu, I think there are three different menus, maybe to make it interesting, or possibly just because they were written

by different people, I don't know.

The name may be misleading, as some of the games just plain stink. On the flip side of things some of the games are fantastic. Not to mention the fact that the package has some major historic value. If you can afford it -- buy it!

To expedite things, what I'm going to do is list the name of the program, give a brief annotation mixed with what I think of it. Then at the end I'll give you an over all opinion, although I think you already know what I think of this bundle of software (I love it!).

Shirley Muldowney Top Fuel Challenge 1987. You wait for what seems like hours to drag race, finally the program is ready, and the drag race lasts about 5 seconds, because you blow the stupid engine the first time you play it. The wait is so incredibly long you may never load this program into your computer again. This game truly stinks. 0

Richard Petty's Talladega 1984. This game reeks of **Pole Position**, however the play is wild in contrast to that classic. Music is **Yankee Doodle**, but game play is not bad. You have a choice of a set track or one with random curves. * *

Motor Mania 1982. This game looks like something you typed in from an old issue of **Power Play**. The graphics are not too bad, although the sprites look like those of other games of this sort. Game play is challenging, but not all that great. You drive down a track that has a few

intersections with an occasional passing fire truck. Oil slicks are square, being made out of keyboard characters. I recommend this one for kids new to arcade games. Historic value in this one **

Time Tunnel 1985. This game is kind of neat. It's an adventure game with pure graphics and you can actually go places and feel like you're getting somewhere in the game. The computer will never respond with, "I don't know how to blah blah something." ****

High Noon O.K. Corral kind of shoot 'em up. Graphics aren't too bad, but play is difficult because of the user interface. Arcade style action. *

Aztec Challenge This one was a big seller. The graphics are cool, the user interface makes it hard, but it becomes part of the game. This one is a toughy. I made it half way up the pyramid on my own (second challenge). Arcade adventure. ***

Forbidden Forest This one was a mega-best-seller and I can see why. The graphics are good, the music and sound are excellent, the user interface is great and the game itself is challenging and fun. And you don't have to start from the beginning after you die, you can just continue until you finally make it all the way through -- I love games like this. Arcade adventure. ****

Caverns of Khafka Another cool one. Graphics are good, music better than good in this Indiana Jones kind of arcade adventure. Game play is kind of weird at times; you can climb stuff that isn't there -- kind of strange. You search for treasures as you avoid booby traps. ****

Delta Man 1986. Sound and Graphics are great, game play is a pain. You may find yourself getting bored because of slow response to input. Fantasy. **

Slinky A best seller Q-Bert clone, with a twist. When you complete a level there is a tiny celebration. ***

Mediator 1986. This game is much like **Gravitron** in that the physics are the same -- touch the fire button and turn the stick kind of play. Graphics are vividly colorful and sound is equally colorful. Game play is slow, but challenging. ***

Fearless Fred and the Factory of Doom 1986. This game is great, an adventure into the crystal factory that is guarded by what appear to be some pretty bad lookin' punk-biker dudes. But they are near sighted and you can jump right over them and they won't even know you are there! Great graphics, total arcade play worth the price of the package -- ****

Spite & Malice 1986. The game of Othello, no bad, although I've seen better versions in the Public Domain that are as old as this version. ****

Legend of Knucker Hole 1984. Guide Jet-Boot Jack through the maze of deadly skulls and laser beams. Arcade game. Very challenging. ****

Psycatria 1988. This is a 2D **Zaxxon** type game, very tough. Every time I died a very British female voice would say, "Tough luck -- sucker." Arcade action, fast or slow -- you decide. ***

Beyond The Forbidden Forest The graphics, music, sound effects, game play and user interface are fantastic in this arcade adventure, although some what repetitive. ***

Chernobyl This simulation of the Chernobyl nuclear power plant has excellent graphics and sound. The user interface is top notch. There is one major problem with this real-time simulation, it is real time. I

tried to force the plant to melt down, I left it running on my computer for two days unattended, nothing went wrong. Maybe if you had a year to kill, it might, but I don't think it would ever melt down. Chernobyl was one of the most devastating disasters that humankind has ever brought upon this planet. Part of the word simulation is similar, because of the lack of that, the five stars this game would have received has been dropped to a ***

Professor I. Q. 1984. Spin the wheel to choose which puzzles to solve before the time is up. **

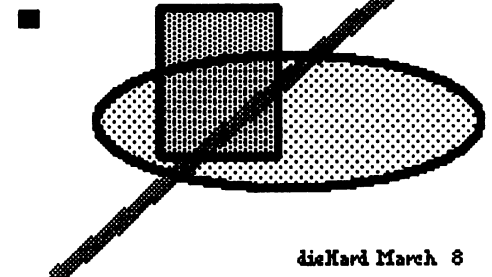
Grand Master Chess 1982. As with many chess games for the 64, the graphics are adequate, it's a good game. ****

Potty Pigeon Great graphics, great user interface, boring game. Little kids might like it, if you don't mind exposing them to the violence of a bird killing people in cars then once in awhile getting killed itself. Arcade. *

The collection as a whole, shows us where we've been as **commodore 64** users, what programs used to be like and gives us some fun games along the way -- at least from the COSMI side of sixtyfourdom. This package is a spectrum of not only history, but game evolution. ****

Top 20 Solid Gold Commodore Entertainment Hits! is available from TENEX Computer Express, 56800 Magnetic Drive, Mishawaka, IN, 46545.

READY.



Q&A

by

Brian L. Crosthwaite

Q: I have a Commodore 64, a 1541 disk drive and a VIC 1525 printer. Loading programs can take forever. I have just won the state lottery. I can now afford a fastload-utility cartridge and have been looking at two in particular: **The Super Snapshot & The Final Cartridge**. Which do you recommend?

A: I have seen them both in action, in fact, I use the **Final Cartridge** quite extensively. The **Super Snapshot (SS)** has a sequential file reader, a terminal program, a sprite editor and the ability to save screens to disk -- then resume your program.

They both have BASIC commands for programming and machine language monitors. They both offer the ability to save a memory resident program for fast loading. You can print screens with both cartridges, but **The Final Cartridge (FC)** will not allow you to resume your program. Both support color. You can disable sprites to cheat at arcade games.

They both claim to load programs 15 times faster than normal, however when compared the **SS** loaded a large program in 9 seconds less (it took the **FC** 30 seconds to load and the **SS** 21 seconds). The **FC** only blanked the screen momentarily, while the **SS** turned the screen into garbage then back again. Both cartridges may have done this, but the **FC** took the time to blank the screen so you would not see this. That may account for the longer load time.

The **FC** only supports the 1541 and doesn't always work with the 1581. I've never had any problems with the 1571. The **SS** supports 1541, 1571, and 1581 drives. All things considered I'd go with the **Super Snapshot**. It costs about the same and you get more for your money.

Q: What is the start of BASIC address for the PET?

A: 1027, decimal.

Q: Hello, I have a Commodore 128, VIC 20, and even a Timex-Sinclair 1000. I still don't have a printer, but am considering a Panasonic 2124. Is this fully com-

patible with GEOS 128 2.0 and is there a particular printer interface which would be best? -Thanks, Doug Wagoner, Post Falls, Idaho.

A: Let's see, Idaho, Idaho, I think I've been there! I have no data on the 2124. However, if it's anything like the 2123 (or the 1123), you can use it with **GEOS** and the Epson LQ-1500 print driver on page 4 of your system disk should drive it. Remember too, that the fonts are sent to the printer as graphics, and so the letter quality fonts in the printer will not be the ones that print out, unless you use **GeoWrite's** NLQ feature. You might ask the dealer if it has Epson LQ emulation to be sure.

For printer interfaces I recommend the Cardprint G-Wiz Interface. I've only heard good things about this unit and the cost is reasonable. I have an early model Cardprint B, and it is great!

Got a question on one of the many great mysteries of life and computing? Send them to: **dieHard**, ATTN: Q&A, P.O.Box 392, Boise, Idaho, 83701.

READY.



DOS and Don'ts

DOS and Don'ts reprinted with permission from LOADSTAR. **The Complete DOS and Don'ts** is available on 1541 disk for the 64 for \$9.95, plus \$4.50 Shipping for 2nd day delivery from Softdisk, P.O. Box 30008, Shreveport, LA, 71130. The **DOS Manager** for the 64 is available for \$3.00 (\$5.00 Canadian) from LynnCarthy Ind., P.O. Box 392, Boise, ID, 83701 and is in the public domain.

Disk Status (@)
==== =====

by
Joel Ellis Rea

We have discussed the formatting (NEWing) of a new disk, and the LOADING and SAYEing of BASIC programs. Now we will cover some maintenance commands such as how to remove a program that is no longer needed, how to change the name of a program, how to get rid of all unclosed files on a disk, etc. As always, we will use the DOS Wedge versions of disk commands. Maintenance commands are sent by the Wedge to the Command Channel of the disk drive. Without the Wedge, you would have to type:

```
OPEN 15,8,15: PRINT#15, 'command':  
CLOSE 15
```

to send the command string 'command' to the disk drive. With the Wedge, you need only type:

```
@command
```

or

```
>command
```

For our examples, we will use the '@' prefix. It does not need the SHIFT key like the '>' prefix, but you may use whichever you prefer. The NEW command discussed last issue is an example of a maintenance command. Such commands are performed by the disk drive itself. The 64 only passes the command from you to the drive. The simplest of the maintenance commands is the Display Disk Status command. This is actually a Wedge special, since you cannot just print this command to the Command Channel. To do a Display Disk Status, just type:

```
@
```

and hit RETURN. It's that simple. If all is well, the screen will display.

```
@          <- You typed this.  
00, OK,00,00 <- Computer says!
```

This means that the Disk Status is OK! If the red drive light is flashing steadily, that means an error condition. The disk drive 'knows' what the error is, but since it does not control the serial bus, it cannot 'speak' unless 'spoken to'. By typing '@', you request the current status of the drive. An example of an error:

```
/BADPRG <-LOAD 'BADPRG'
```

```
SEARCHING FOR BADPRG  
LOADING <- Drive 'clatters'  
READY. <- Red light blinking!  
@ <- Display Disk Status  
20, READ ERROR,17,12
```

The first number displayed, in this case 20, is the Error Code. The text following the Error Code is a brief description of the error, called the Error Message. The second number is (usually) the track on which the error occurred, called the Error Track, and the last number is the sector of the Error Track on which the error occurred, the Error Sector. So this response means that there was a READ ERROR code 20 while trying to read sector 12 of track 17. Once the Disk Status has been displayed, the red light stops flashing and further Disk Status commands will return the OK message until the next error.

The Directory (\$)
==== =====

The next command we will discuss is another 'Wedge Special'. It is called the Display Directory command. The Directory of a disk is a list of the programs and other files on the disk. Without the Wedge, it is virtually impossible to get a Directory Listing without erasing the program currently in the computer's memory. That is because the Directory is intended to be LOADED into memory like a program, and then LISTED. Of course, LOADING one program erases any other that might be in memory! But with the Wedge, you can view the Directory without losing your current program. Just type:

```
@$
```

and you will see something like:

```
0  'MY FIRSTDISK 'M1 2A (reverse)  
1  'DOS WEDGE'      PRG  
5  'DOS 5.1'        PRG  
18 'MENU'           PRG  
9  'MENU FILE'     SEQ
```

The first line is in reverse colors. It says that Drive #0 (The 1541 only has 1 drive so you can ignore this) has a disk in it that was formatted (NEWed) with the name 'MY FIRST DISK' and the ID 'M1'. The 1541 uses DOS V2 and 4040 format (format A), thus the '2A' in the header. The rest of the lines list the files on the disk. For each file, the number of blocks (4 blocks = 1K) that the file uses is displayed, followed by the name of the file itself, followed by the file type. You should only see 4 types on any of your disks. These types are PRG for PROgram (either BASIC or binary), USR for USEr (another version of SEQ), SEQ for SEQUential (usually a text or data file), and REL for RELative (a kind of data file). Okay. Let's suppose that you wrote the program called 'MENU' on the disk. Now let's suppose you make some modifications to the program, and now you want to save the changed version. You type SAYE 'MENU',8 ,but to your horror, the red light starts flashing after less than a second! The drive didn't make any clattering noise or anything, but the drive says 'ERROR' with that red LED! Just request the Disk Status (with '@' or '>'), and you see '63, FILE EXISTS,18,01'. The nice folks at Commodore didn't want you to accidentally save over an existing file so they don't let you do it. There is a "Save with Replace" command, but as I warned you in the first issue, DON'T USE IT!! (Serious Bug There in Some Drives!) Instead, you have two choices. The easiest but less safe way is to remove the old copy, then save the new version. Thus, we introduce a new maintenance command, 'SCRATCH'.

To be continued.

READY.

Last month the PRG listings had some bugs in them rendering them useless. This month's PRG was running us way behind schedule. So rather than just omit the column altogether, it only seems logical to run last month's article and listings again. Please note that technicality there is no PRG for this month and therefore no Spinner. The following is February's PRG.

PRG

by
Brian L Crosthwaite

Last month (January) the **Spinner** had a program for the VIC 20 called **Alpha Count**. **Alpha Count** is a game for children of all ages. The program starts by asking if you want to play a game. The VIC version does this in a nonchalant way, as if someone has mysteriously appeared in the computer. This version starts similar, but the text color is black. Load the program in the computer and run it. Leave the computer on for the next unsuspecting person!

After some simple input from the user the screen fills with color and the game begins. Instructions are included. While the premise is rather simple it will provoke thought on the behalf of the user. **Alpha Count** is listing one and runs on the 4, 16, 64 and 128.

Want an easy way to go from sprite design to sprite on the screen? **Ez-sprite 64** does just that. It demonstrates how a sprite can be designed right in the data statements using asterisks. Just type it in and run it. Press space if the computer is just sitting there and it will list out the data area for your alteration. See listing 2.

For our 128'er out there, there is a simple cartoon for the holiday. Listing 3 runs only on the 128, but should be easily converted to the 64 with a **Super Expander**. The SOUND command will have to be changed. This PRG has many things marked for clarification with REMARKS.

For the VIC 20 there is **Stargate** and **Swirl III**, listings 4 and 5 respectively — both mathematical art. These are hires graphics on the unexpanded VIC. They will not run on an expanded VIC without modification. They will, however, run on a VIC with a **Super Expander**. Also notice it is **Swirl III - I** and **II** are only on the **Spinner**.

Listing 6 is the same formula as its VIC 20 counter-part. **Swirl III** for the plus/4 and 16 is expanded slightly and the difference in outcome is startling. This PRG take well over an hour to finish.

Listing 7 is a pseudo-wedge for the plus/4 and 16 written entirely in BASIC 3.5.

Some parts of these programs are different on the **Spinner**, as we sometimes have to remove some flash to get things done. The **Spinner** also contains other programs not found in the **Flyer**. Readers are invited to share their work. Submitters who get published will receive a free issue of **dieHard the Flyer** and **dieHard the Spinner**. Send us your PRGs on disk or cassette, with a hardcopy of the listing and explanation of programs. **dieHard**, P O Box 392, Boise, Idaho, 83701.

Technical notes...

The programs are written in lower-case. Type them in with your machine in upper-case mode (if it is not in upper case mode, then press the <C=> and <shift> keys simultaneously). Where you see a capitol, that means that key is used in conjunction with another key, ie: [shift T] don't type the brakettes, just type <SHIFT><T> to get the graphic on the right front or top of the key. "ctrl" means CONTROL and C= is the **commodore** key. "crsr" are the cursor keys. If you see c= (lower-case c) that means type: c=, c is often used as a counter variable, so you might see c=c+1 or something like that. None of this month's PRGs use lower case. Type carefully and enjoy!

READY.

Listing 1. Alpha-Count For the 128,
64, 16 & +4

```

█
2 rem copyright 1993
3 rem lyncarthy ind
4 rem all rights reserved
100 rem *** computer cipher ***
110 computer = peek(772) + 256 *
    peek(773)
120 if computer = 35158 then c=1
130 if computer = 50556 then c=2

```

```

140 if computer = 42364 then c=3
150 if computer = 17165 then c=4
160 on c gosub 60416, 60020,
    60064, 60128 : poke sc,113 : s$ = "
    [9 crsr right]"
500 print "t2 HOMEICLR"
    [ctrl 1][110 crsr down]hello, do
    you want to play a game?"
510 get a$: if a$ = "" then 510
520 if a$ < "y" then print "[CLR]" : end
530 print "[CLR][10 crsr down]
    [15 crsr right]oh, goody!"
    : for t=0 to 1900 : next
534 input "[CLR][10 crsr down]
    how many players?" : n : if n<=0 then
    n=1 : else if n>9 then 534
540 print "[CLR][10 crsr down]
    my name is ";cn$;"
550 dim n$(n), w$(n), no(n)
    :for p=1 to n : print"what is player
    number"P"[crsr left]'s name?":
    input n$(p)
560 next
900 print"[CLR]" : gosub 7000
1000 poke bc,2 : poke sc,0 : print s$;"
    [3 crsr down][3 crsr right]
    [ctrl 8][shift UI][14 shift D]
    [shift I]"
1010 print s$;"[3 crsr right][shift 8]
    [ctrl 7][lyncarthy ind][ctrl 8]
    [shift H]"
1020 print s$;"[3 crsr right][shift J]
    [14 shift F][shift K]"
1030 print s$;"[3 crsr down]
    [6 crsr right][ctrl 2][shift U]
    [8 shift X][shift I]"
1040 print s$;"[6 crsr right][shift -]
    [shift S]presents[shift 2][shift -]"
1050 print s$;"[6 crsr right][shift J]
    [8 shift X][shift K]"
1060 print s$;"[3 crsr down]
    [4 crsr right][ctrl 7][shift N]
    [12 C= T][shift M]"
1070 print s$;"[4 crsr right]C= G]
    [ctrl 5][ctrl 8][ctrl 7][p[ctrl 3]
    h[ctrl 2][a[2 space][ctrl 5][ctrl 4]
    o[ctrl 7][u[ctrl 8][n[ctrl 5][ctrl 7]
    [C= M]"
1080 print s$;"[4 crsr right][shift M]
    [12 ctrl 0][shift N]"
1090 for t=0 to 2200 : next
1120 gosub 2000
1130 gosub 3000
1140 gosub 4000
1150 gosub 5000
1160 gosub 6000
1170 goto 1130
1180 rem finalize and quit option
1999 end
2000 print "[HOME]";s$;"[8 crsr down]
    [5 crsr right]C= AI[13 shift X]C= S]
2002 print s$;"[5 crsr right]
    [shift -] do you need [shift -]
2004 print s$;"[5 crsr right]
    [shift -]instructions?[shift -]

```



```

2006 print s$;"[5 crsr right][C= Z]
      [13 shift X][C= X]
2010 get a$ : if a$="" then 2010
2012 if a$(">y)" then 2999
2018 print "[CLR]"
2020 print s$;"[ctr1 2]the alphabet
      will be"
2030 print s$;"[2 space]
      under each"
2040 print s$;"letter is a number."
2050 print s$;"spell words with the"
2060 print s$;"highest numbercount."
2080 print s$;"the player with the"
2090 print s$;"highest count wins."
2092 print : print : print s$;"press
      any key to start"
2900 get a$ : if a$="" then 2900
2999 return
3000 rem display game
3010 poke bc,6 : poke sc,113 : print
      "[CLR][2 crsr down]"
3020 print "[3 space][ctr1 1]a
      [2 space][ctr1 3]b[2 space]
      [ctr1 4]c[2 space][ctr1 5]d[2 space]
      [ctr1 6]e[2 space][ctr1 7]f[2 space]
      [ctr1 8]g[2 space][ctr1 1]h[2 space]
      [ctr1 3]i[2 space][ctr1 4]j[2 space]
      [ctr1 5]k[2 space][ctr1 6]l"
3030 print "[3 space][ctr1 1]i[2 space]
      [ctr1 3]l[2 space][ctr1 4]l[2 space]
      [ctr1 5]l[2 space][ctr1 6]s[2 space]
      [ctr1 7]i[2 space][ctr1 8]j[2 space]
      [ctr1 1]l[2 space][ctr1 3]i[2 space]
      [ctr1 4]
      [ctr1 5]i[2 space][ctr1 6]l[2 space] : print
3040 print "[3 space][ctr1 7]m
      [2 space][ctr1 8]n[2 space]
      [ctr1 1]o[2 space][ctr1 3]p[2 space]
      [ctr1 4]q[2 space][ctr1 5]r[2 space]
      [ctr1 6]s[2 space][ctr1 7]t[2 space]
      [ctr1 8]u[2 space][ctr1 1]v[2 space]
      [ctr1 3]w[2 space][ctr1 4]x"
3050 print "[2 space][ctr1 7]
      13 [ctr1 8]14 [ctr1 1]15 [ctr1 3]
      16 [ctr1 4]17 [ctr1 5]18 [ctr1 6]
      19 [ctr1 7]20 [ctr1 8]21 [ctr1 1]
      22 [ctr1 3]23 [ctr1 4]24" : print
3060 print "[18 space][ctr1 5]y
      [2 space][ctr1 6]z[25 space]
      [10 space][ctr1 5]25 [ctr1 6]26"
3999 return
4000 rem input & play
4010 print "[3 crsr down]" : for
      p=1 to n : print "[2 crsr up][ctr1 6]
      player:[ctr1 5]";n$(p);"[ctr1 1]"
4020 input w$(p)
4022 print "[2 crsr up][21 space]"
      : print"[20 space]"
4030 for l=1 to len(w$(p))
4040 no(p)=no(p)+
      (asc(mids(w$(p),l,1))-64)
4050 next : next
4999 return
5000 rem select winner
5010 w=0 : w$="" : for p=1 to n
5020 if no(p)>w then w=no(p)
      : w$=n$(p)
5030 next : p=n : print "[CLR]"
      "[3 crsr down]"
5034 for l=1 to p : cc=int(rnd(t))X9)+1
      : cz$=mids("123456789",l,1)
      [ctr1 6][ctr1 7][ctr1 8]C= 11C= 2]
      [C= 3]";cc,cc)
5038 print s$;cz$;n$(1)"" count
      is";no(1) : next
5040 print s$;"[3 crsr down]
      [4 crsr right][ctr1 3]";w$ :
      print s$;"[2 crsr right][ctr1 5]is
      the winner!"


```

```

5050 for t=0 to 3900 : next
5999 return
6000 rem play again
6010 print "[CLR][10 crsr down][ctr1 1]
      would you like to play again?"
6020 get a$ : if a$="" then 6020
6030 if a$(">y)" then print "[CLR]"
      [10 crsr down]thank you very
      much for playing --
      [6 space]goodbye!" : goto 6050
6040 return
6050 for p=1 to n
6060 print n$(p); " "; if p>1
      and px then print" and"
6070 next
6080 for t=0 to 4900 : next : print
      "[CLR]" : end
7000 if c=4 then fast
7010 for x=0 to 39 : for y=0 to 24
7020 r=int(rnd(0)*255)+1
      :r=(int(r/16)*16+r)
7030 poke sa+x+40*Y,81 : poke
      ca+x+40*Y,r : poke bc,r
7040 next : next : if c=4 then slow
7050 return
60020 rem XXX vic 20 XXX
60030 print "[CLR]not for vic!" : end
60064 rem XXXXX 64 XXXXX
60070 cn$="noesis"
60128 rem XXXX c128 XXXX
60130 bc=53280 : sc=53281 : sa=1024
      : ca=55296
60140 if c= 4 then graphic0 :
      cn$="edgar"
60400 return
60415 end
60416 rem X plus 4 & 16 X
60420 bc=65305 : sc=65301 : sa=3072
      : ca=2048 : cn$="geist"
60500 return
60600 end

```

Listing 2. Ez-sprite 64 For the 64.



```

1000 rem[3 space]reading sprites
      from pictures[11 space]drawn in
      the data statements
1010 print "[CLR][crsr down]
      [15 space][ctr1 3]ez-sprite"
1012 print "[crsr down]draw sprites
      directly in data statements
1020 print "[2 crsr down]
      [18 space][ctr1 4]by"
      : poke 53280,1 : poke 53281,7
1030 print "[3 crsr down][10 space]
      [ctr1 7][19 C= 0]"
1040 print "[10 space][ctr1 7]lrvs on]
      brian l crosthwaite
1050 print
1060 print "[8 space][ctr1 6]copyright
      1993 lyncarthy ind.
1070 print "[9 space][ctr1 6]all rights
      reserved
1080 print
1090 print
1100 print "[8 space]lrvs on]
      [ctr1 2][shift british pound][C= 8]
      [22 space][C= 5][C= X][lrvs off]"
1110 print "[8 space]lrvs on]
      [C= 8] [C= 5]press <space> to
      begin[C= 4] lrvs off]"
1120 print "[8 space][C= 5][C= X]
      [lrvs on][C= 4][22 space][lrvs off]"
      [ctr1 1][shift british pound]"
1130 rem nu=number of sprites
1200 cz=0 : sa=53248 : sc=53287 : nu=1
      : dimss$(20 X nu)
      : rem nu can be up to 8 sprites

```

```

1210 get e$ : if e$="" then 1210
1220 gosub 2000 : rem read data
1230 gosub 3000 : rem set sprites
1240 gosub 4000 : rem convert data
1250 e$="" : get e$ : if e$=""
      then 1250
1260 gosub 5000 : list 8050 - 8250
1999 end
2000 rem read data into strings
2010 for i=0 to 20 X number of
      sprites : read ss$(i) : next
2020 return
2999 end
3000 rem set up sprites
3004 sn=nu-1
3010 poke sctsn,0 : rem color 0
3020 poke 53277, peek (53277) and
      (255-2*sn) : [17 space]
      rem unexpand x
3030 poke 53271, peek (53271) and
      (255-2*sn) : [17 space]rem
      unexpand y
3040 poke sa+sn,255 : poke
      sa+sn+1,100 [5 space] :
      [17 space]rem position
3050 poke 53269, peek (53269) or
      (2*sn) [5 space] : [17 space]rem
      turn sprite on
3900 return
3999 end
4000 rem convert strings into
      sprites
4002 poke 2040,192 : cv=7
4010 print "[CLR][2 crsr down]"
      [crsr left]" : for i=0 to 20 X nu
4020 for j=1 to 24
4026 p=(asc(mids(ss$(i),j,1))-42)
4030 print mid$(str$(p),2,1);
4032 if p=0 and cv=0 then
      pv=pv or 0 : goto 4038
4034 pv=pv or ((2X-lp=1)+cv)
4038 cv=cv-1 : if cv<0 then cv=7
      : poke 192 X 64+cz,pv : pv=0
      : cz=cz+1
4040 next : print
4050 next : cz=cz+1
4900 return
4999 end
5000 rem end
5004 sn=nu-1
5010 poke 53269, peek (53269) and
      (255-2*sn)
5020 print "[CLR]"
5900 return
5999 end
8000 rem[2 space]sprite data
8001 rem[2 space]11111111112222
8002 rem[2 space]10123456789
      01234567890123
8003 rem[2 space]124 -1
8004 rem[2 space]17654321076543210
      76543210
8008 rem[2 space]124 -1
8010 rem[2 space]11[7 space]1[7 space]1
8020 rem[2 space]12631[4 space]12631
      [4 space]12631
8030 rem[2 space]1042684218426
      842184268421
8040 rem
      [2 space]124 -1
8050 data "[24 space]" : 0
8060 data "[24 space]" : 1
8070 data "[10 space]XXXX"
      [10 space]" : 2
8080 data "[7 space]XXXX[4 space]XXXX"
      [7 space]" : 3
8090 data "[6 space]X[10 space]X

```

```

[6 space]" : 4
8100 data "[6 space]XXXX
[4 space]XXXX[6 space]" : 5
8110 data "[6 space]X[3 space]XXXX
[3 space]X[6 space]" : 6
8120 data "[6 space]X[10 space]X
[6 space]" : 7
8130 data "[6 space]X[10 space]X
[6 space]" : 8
8140 data "[4 space]XXX[10 space]XXX
[4 space]" : 9
8150 data "[3 space]X X[12 space]X X
[3 space]" : 10
8160 data "[2 space]X[2 space]X
[12 space]X[2 space]X[2 space]" : 11
8170 data "[2 space]X[2 space]XX
[10 space]X[2 space]X
[2 space]" : 12
8180 data "[2 space]X[4 space]XXX
[4 space]XXX[4 space]X
[2 space]" : 13
8190 data "[3 space]X[6 space]XXXX
[6 space]X[3 space]" : 14
8200 data "[4 space]X[12 space]XX
[4 space]" : 15
8210 data "[6 space]XXX[6 space]XXX
[6 space]" : 16
8220 data "[9 space]XXXXXXXX
[9 space]" : 17
8230 data "[24 space]" : 18
8240 data "[24 space]" : 19
8250 data "[24 space]" : 20

```

Listing 3. The Trip to St. Valentine's Day For 128.

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
130 rem Xfebruary 1993 diehard
spinnerX
140 rem X[5 space]
brian 1 crosthwaite[5 space]X
150 rem X[6 space]happy valentine's!
[6 space]X
160 rem X[12 space]enjoy[12 space]X
170 rem [30 X]
1000 rem X title screen &
sprite data X
1100 gosub 4000
1200 rem Xehard spinnerX
140 rem X[5 space]
brian 1 crosthwaite[5 space]X
150 rem X[6 space]
happy valentine's![6 space]X
160 rem X[12 space]enjoy[12 space]X
170 rem [30 X]
1000 rem X title screen &
sprite data X
1100 gosub 4000
1200 rem XXXX clear screen XXXX
1300 print "[CLS]"
1400 rem XXX plains XXX
1500 gosub 5000
1600 rem XXXX house XXXX
1700 gosub 3000
1800 rem XXXX turn off sprites XXX
1999 gosub 4009 : print "[HOME][CLR]"
: end
2000 rem XX clear sound routine XX
2010 so= 54272 : for j=0 to so+24
: poke j,0 : next
2990 return
2999 end
3000 rem XX house XX
3002 vol 15
: sound1, 900, 600, 2, 1200, 3000, 1
3011 print "[HOME][CLR][ctrl 2]
[crsr down][2 crsr right]you
search for that one

```

```

true love..."
3012 sprite2,1,1,0,1,0,0
3014 print "[HOME][11 crsr down]
";chr$(27);"[ctrl 7][crsr down]
[crsr left][10 crsr down]
";chr$(27);"b"; : color 0,10
3020 for i=0 to 399 : print "[2 C= 0]
[2 C= F][2 shift R][2 shift F]
[2 shift C][2 shift D][2 shift E]
[2 C= Y][2 C= T]";
3030 next
3040 print "[HOME][ctrl 8][crsr down]
[2 crsr right][2 space]you run out
of gas and decide that"
3044 print "[4 space]you must walk."
: sleep 5
3052 sprite 2,0 : sprite 3,0
3060 print "[2 HOME][CLR]"; : color 0,2
3070 print "[C= 4][19 space][shift N]
[C= H][18 space]";
3080 print "[18 space][shift N]
[2 space][C= H][18 space]";
3090 print "[17 space][shift N]
[3 space][C= H][18 space]";
3100 print "[16 space][shift N]
[4 space][C= H][18 space]";
3110 print "[15 C= Y][shift F]
[5 space][C= H][18 space]";
3120 print "[15 space][C= N][5 space]
[C= H][18 space]";
3130 print "[15 space][C= N][5 space]
[C= H][18 space]";
3140 print "[15 space][C= N][5 space]
[C= H][18 space]";
3150 print "[15 space][C= N][5 space]
[C= H][18 space]";
3160 print "[15 C= F][shift 0][5 space]
[C= H][18 space]";
3170 print "[16 space][shift M]
[4 space][C= H][18 space]";
3180 print "[17 space][shift M]
[3 space][C= H][18 space]";
3190 print "[18 space][shift M]
[2 space][C= H][18 space]";
3200 print "[19 space][shift M] [C= H]
[18 space]";
3210 print "[20 space][shift M][C= H]
[18 space]";
3220 print "[21 space][19 C= Y]";
3230 print "[25 space][15 space]";
3240 print "[3 crsr down]
[2 crsr right][ctrl 6]
several hours later you find
yourself[3 space]in a strange
house...";
3250 sprite 7,1,1 : sleep 6
3260 print "[3 crsr left] looking at
a[9 space]painting."
3270 char 1,10,10,"[C= 1][C= N][crsr up]
[shift N][C= H][crsr down][crsr left]
[C= H][crsr down][crsr left][C= H]
[2 crsr left][shift M][crsr up]
[crsr left][shift S]"
3280 sleep 6
3290 print : print"
[4 crsr down]";chr$(27);"[t[CLR]"
3300 print "[2 crsr right]suddenly,
she sees you and yet you
[6 space]remain unaware."
3310 sprite 6,1,1
3320 sleep 3 : for i=0 to 9 : o=0+1
: if o>1 then o=0
3322 for d=0 to 299 : next :
sound 1,200,1
3326 sprite 4,0,3 : next
3330 print "[CLR][ctrl 1]
[9 crsr right]the next thing you
know[19 space]you have a

```

```

mortgage"
3340 sprite 6,0 : sprite 7,0 : sprite
8,1,2 : color 0,8 : sprite 5,1,3
: sound1,2200,20,0,1200,100,2,4000
3350 envelope 7 : tempo 8
: play "ha qsa $f g f d"
3390 sleep 9 : return
3999 end
4000 rem XX title routine XX
4010 for c=1 to 5 : color c,c+1 : next
: color 0,8
4020 print : print "[ ctrl 5]the trip
to [ctrl 3] saint [ctrl 6]
valentine's [ctrl 7]day"
[27 space]";
4030 for fz=1 to 20 : print : next
4210 print "[20 space][ctrl 4]by"
4220 print "[20 space][ctrl 5]brian 1
crosthwaite ";
4230 print "[ctrl 2][40 C= 0]";
4240 print "[ctrl 2][rvs on][C]1993
lynncarthy ind[2 space]february
diehard";
4260 poke 2020,102 : poke 56295,1
4272 rem XXX clear sound XXX
4274 gosub 2000
4280 rem XXXX init sprites XXXXX
4290 v=dec "[0e00")
4300 for l=v to 4032 step 64
: for p=1 to l+63 : if l+v then
poke p,255 : goto 4308
4304 read d : poke p,d
4308 next p,l
4309 rem sprite 1[14 space]block
4310 sprite 1,0,1,0,0,0,0
4311 rem sprite 2[14 space]car
4312 sprite 2,0,1,0,0,0,0
4319 rem sprite 3[14 space]sun
4320 sprite 3,0,3,0,0,0,0
4321 rem sprite 4[14 space]heart
4322 sprite 4,0,3,0,0,0,0
4329 rem sprite 5[8 space]
heart w/arrow
4330 sprite 5,0,5,0,0,0,0
4331 rem sprite 6[14 space]gir1
4332 sprite 6,0,1,0,0,0,0
4339 rem sprite 7[14 space]boy
4340 sprite 7,0,1,0,0,0,0
4341 rem sprite 8[14 space]kiss
4342 sprite 8,0,2,0,0,0,0
4350 gosub 9000
4999 return
4999 end
5000 rem XXXX rolling plains XXXX
5002 vol 15
: sound1,900,0,670,2,1700,3000,1
: sprite 3,1,8
5010 print "[2 HOME][CLR][7 crsr down]
[2 crsr right][ctrl 2][38 C= 0]"
5011 print "[HOME][ctrl 1]
[2 crsr down][crsr down]the
rolling plains out the window
of[4 space]your motor car."
5012 print "[HOME][ctrl 1][crsr down]
[crsr right][rvs on][C= J]
[repeat the following key
strokes 24 times total (don't
type this)][crsr down][crsr left]
[C= J][rvs off]";
5014 print "[HOME][5 crsr down]
[4 crsr right][ctrl 8][shift Q]
[5 crsr left][2 crsr right]
[6 crsr down]";chr$(27);"[ctrl 7]";
: color 0,10
5020 for i=0 to 399 : print "[2 C= 0]
[2 C= F][2 shift R][2 shift F]
[2 shift C][2 shift D][2 shift E]
[2 C= Y][2 C= T]";

```

```

5030 next
5999 return
9000 rem ## reset sprites ##
9010 movspr 1,170,220 : rem block
9020 movspr 2,170,220 : rem car
9030 movspr 3,045,080 : rem sun
9040 movspr 4,060,140 : rem heart
9050 movspr 5,090,120 : rem
heart w/arrow
9060 movspr 6,060,140 : rem girl
9070 movspr 7,110,140 : rem boy
9080 movspr 8,090,140 : rem kiss
9090 for i=1 to 8 : sprite i,0 : next
9999 return
9999 end
50000 rem ##### sound #####
50090 return
59999 rem ##### sprite data #####
60000 data 0, 0, 0, 0, 0, 0, 0, 0
60010 data 0, 0, 0, 0, 0, 0, 0, 0
60020 data 0, 0, 0, 0, 0, 0, 0, 0
60030 data 3, 248, 0, 3, 12, 0, 3, 74
60040 data 0, 39, 73, 0, 63, 255,
252, 32
60050 data 132, 2, 96, 196, 2, 60,
132, 123
60060 data 66, 120, 132, 25, 255,
48, 36, 0
60070 data 72, 36, 0, 72, 24, 0, 48, 0
60080 data 0, 0, 0, 0, 0, 0, 0, 0
60090 data 0, 0, 255, 0, 3, 255, 192, 7
60100 data 255, 224, 15, 255, 240, 31,
255, 248
60110 data 31, 255, 248, 63, 255, 252,
63, 255
60120 data 252, 63, 255, 252, 63, 255,
252, 31
60130 data 255, 248, 31, 255, 248, 15,
255, 240
60140 data 7, 255, 224, 3, 255, 192,
0, 255
60150 data 0, 0, 0, 0, 0, 0, 0, 0
60160 data 0, 0, 0, 0, 0, 0, 0, 0
60170 data 0, 3, 199, 128, 7, 209,
192, 15
60180 data 255, 224, 15, 255, 224, 31,
255, 240
60190 data 31, 255, 240, 15, 255, 224,
15, 255
60200 data 224, 7, 255, 192, 3, 255,
128, 1
60210 data 255, 0, 0, 254, 0, 0, 124, 0
60220 data 0, 56, 0, 0, 16, 0, 0, 0
60230 data 0, 0, 0, 0, 0, 0, 0, 0
60240 data 64, 0, 0, 208, 0, 0, 48, 0
60250 data 0, 115, 199, 128, 15, 209,
192, 11
60260 data 255, 224, 13, 255, 224, 30,
255,240
60270 data 31, 127, 240, 15, 255, 224,
15, 255
60280 data 224, 7, 255, 192, 3, 255,
128, 1
60290 data 255, 0, 0, 254, 128, 0,
124, 64
60300 data 0, 56, 40, 0, 16, 24, 0, 0
60310 data 56, 0, 0, 0, 0, 0, 0, 0
60320 data 0, 0, 0, 0, 0, 0, 0, 0
60330 data 0, 0, 0, 0, 0, 0, 0, 0
60340 data 0, 0, 0, 224, 0, 1, 176, 0
60350 data 1, 136, 0, 1, 80, 0, 1, 32
60360 data 0, 0, 48, 0, 0, 56, 0, 0
60370 data 48, 0, 0, 48, 0, 0, 48, 0
60380 data 0, 120, 0, 0, 252, 0, 0, 32
60390 data 0, 0, 32, 0, 0, 48, 0, 0
60400 data 0, 0, 0, 0, 0, 0, 0, 0
60410 data 0, 0, 0, 0, 0, 0, 0, 0
60420 data 0, 0, 0, 224, 0, 1, 176, 0

```

```

60430 data 1, 136, 0, 1, 80, 0, 0, 32
60440 data 0, 0, 48, 0, 0, 48, 0, 0
60450 data 48, 0, 0, 48, 0, 0, 112, 0
60460 data 0, 112, 0, 0, 48, 0, 0, 32
60470 data 0, 0, 32, 0, 0, 48, 0, 0
60900 data 0, 0, 0, 0, 0, 0, 0, 0
60910 data 0, 0, 0, 0, 0, 0, 0, 0
60920 data 0, 0, 0, 225, 192, 1, 179, 96
60930 data 1, 140, 96, 1, 82, 160, 1, 33
60940 data 0, 0, 51, 0, 0, 59, 0, 0
60950 data 51, 0, 0, 51, 0, 0, 51, 128
60960 data 0, 123, 128, 0, 255, 0, 0, 33
60970 data 0, 0, 33, 0, 0, 51, 0, 0

```

Listing 4 Stargate For the VIC 20.

```

#####
0 rem 127x127
2 poke 52,20 : poke 56,20 : clr
10 gosub 1000
20 xm=127 : ym=127
22 xc=xm/2 : yc=ym/2
30 xf=ym/xm : yf=xm/ym
100 for x=0 to xm : y=0 : gosub 2000
: yf=ym : gosub 2000 : next
120 for y=0 to ym : x=0 : gosub 2000
: xc=xm : gosub 2000 : next
420 for r=4 to xm
: for n=1 to 360 step 10
440 xc=int(xc * xf + r * sin(n/180 *
(shift ↑)))
450 yc=int(yc * yf - r * cos(n/180 *
(shift ↑)))
460 gosub 2000 : remplot
470 next : next
480 goto 480
999 end
1000 poke 36869,253
1010 for i=5120 to 7679 : poke i,0
: next
1020 poke 36879,8 : print chr$(147)
1030 for i=7680 to 8185
: poke i,160 : next
1040 for l=0 to 15 : for m=0 to 15
1050 poke 7749+m * 22+1,1 * 16+m
1060 next : next
1070 return
2000 rem plot x,y
2002 if x>xm or x<0 or y>ym or y<0
then 2050
2008 ch=int (x/8) * 16 + int (y/8)
2010 ro=(y/8 - int (y/8)) * 8
2020 by=5120 + 8 * ch + ro
2030 bi=7 - (x - (int (x/8) * 8))
2040 poke by, peek (by) or (2↑bi)
2050 return

```

Listing 5 Spiral III For the VIC 20.

```

#####
2 poke 52,20 : poke 56,20 : clr
10 gosub 1000
20 xm=127 : ym=127
22 xc=xm/2 : yc=ym/2
30 xf=ym/xm : yf=xm/ym
100 for x=0 to xm : y=0 : gosub 2000
: next
120 for y=0 to ym : x=0 : gosub 2000
: xc=xm : gosub 2000 : next
420 for n=1 to 9143 step 1 : r=r + .01
440 x=int (xc + r * xf * sin
(n/1210 * (shift ↑)))
450 y=int (yc - r * yf * cos
(n/2000 * (shift ↑)))
460 gosub 2000 : rem plot
470 next
480 goto 480
1000 poke 36869, 253

```

```

1010 for i=5120 to 7679 :
poke i,0 : next
1020 poke 36879,8 : print chr$(147)
1030 for i=7680 to 8185
: poke i,160 : next
1040 for l=0 to 15 : for m=0 to 15
1050 poke 7749 + m * 22 + 1,
1 * 16 + m
1060 next : next
1070 return
2000 rem plot x,y
2002 if x>xm or x<0 or y>ym or y<0
then 2050
2008 ch=int (x/8) * 16 + int (y/8)
2010 ro=(y/8 - int (y/8)) * 8
2020 by=5120 + 8 * ch + ro
2030 bi=7 - (x - (int (x/8) * 8))
2040 poke by, peek (by) or (2↑bi)
2050 return

```

Listing 6 Spiral III For the 16 and Plus/4.

```

#####
10 gosub 1000
20 xm=319 : ym=199
22 xc=xm/2 : yc=ym/2
30 xf=ym/xm : yf=xm/ym
100 for x=0 to xm : y=0 : gosub
2000 : yf=ym : gosub 2000 : next
120 for y=0 to ym : x=0 : gosub 2000
: xc=xm : gosub 2000 : next
420 for n=1 to 9143 step 1 : r=r + .01
440 x=int (xc + r * xf *
sin (n/1210 * (shift ↑)))
450 y=int (yc - r * yf *
cos (n/2000 * (shift ↑)))
460 gosub 2000 : rem plot
470 next
480 goto 480
1000 graphic 1,1
1070 return
2000 rem plot x,y
2002 if x>xm or x<0 or y>ym or y<0
then 2050
2008 draw 1,x,y
2050 return
4000 rem(27 *)
4010 rem#copyright 1993
lynnCarthy#
4020 rem#(3 spacelall rights
reserved(3 spacel#
4022 rem# dihard the
spinner 2/93#
4030 rem(27 *)

```

Listing 7 GeistWedge For the 16 &+4.

```

#####
0 remember copyright 1993
lynnCarthy ind.(14 spacelall
rights reserved
2 poke 1344,0 : graphic clr : print "
(2 HOMEICLR)";
3 color 1,7,0 : color 4,7,0
4 cs="(HOMEI)crsr right(8 crsr
down)
" + chr$(27) + "(15crsr down)"
5 cs=cs + "(37 crsr right)"
+ chr$(27) + "b"
10 print "(C= AIC8 shift #IC= S)"
20 print "(shift -)"; : color 1,1
21 print "geist"; : color 1,2
22 print "system 164"; : color 1,13,2
24 print "microsoft"; : color 1,12,0
26 print "basic 3.2"; : color 1,7,0
28 print "(shift -)"
30 print "(C= QIshift #IC= W)"

```



```

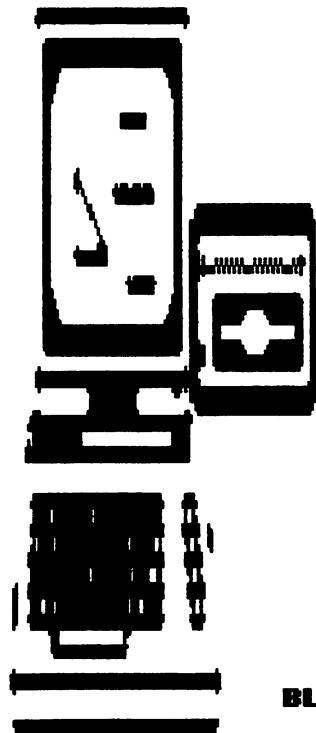
40 print "[shift -] f1=graphics space]
f4=scratch[9 space]shift -]"
50 print "[shift -] f2=dload[10 space]
f5=save/verify[5 space]shift -]"
60 print "[shift -] f3=directory[6
space]f6=run
[13 space]shift -]"
67 print "[shift -] help=help
[9 space]f7=list[12 space]shift -]"
70 print "[[C= Q[shift X][C= W]"
80 for i=0 to 15
84 print "[shift -][[38 space]shift -]"
88 next
99 print "[[C= Z[shift X][C= X]"
100 print C$: poke dec ( " 0c00 " )
+ 999, 125
110 print "[[LR][[3 space]XXX geist
[2 space]system XXX"
120 print "[[7 space]XXX"fre[0]"bytes
free XXX"
130 print "[[10 space]XXX leosoft
XXXX"
140 key 1, "graphic"
150 key 2, "dload[18 crsr right]"
+chr$(13)
160 key 3, "[[LR][directory" + chr$(13)
170 key 4, chr$(148) + chr$(148)
+ "scratch[19 crsr right][[3 : ]"
+ chr$(13)
180 key 5, "sa as, 8
: ve as, 8" + chr$(13)
190 key 6, "[[LR][run" + chr$(13)
200 key 7, "[[LR][list" + chr$(13)
210 key 8, "help" + chr$(13)
220 new : end

```

READY.

Mind Of A
Programmer
Gone Heywire!

Heavy Mental Noise



BLC

Rarity

by
Brian L. Crosthwaite

Let's go to around 1988 or so. Do ever remember seeing these:



or perhaps these:



To tell the truth I don't either, at least not until 1993 - about last week ago actually. These are just a sampling of what is known as **SUZART FONTS**. Neat little graphics drawn with **Fontmaster II** by Sue Albert. There are two disks called **SUZART FONTMASTER III/128** and **SUZART GEOS**. They used to sell for \$12.50 each or so until some cosmic thing happened and they were no longer available. (Or Ms Albert just didn't want to deal them any more.) Until now.

Scot Derrer of The Plotting Shed fame is now carrying the **SUZART** disks and he's selling them for around ten bucks for both disks!

Each font set is loaded - both upper and lower-case, and numbers too. There is something for every occasion. You can even make borders out of these things. The possibilities are limitless! It's a great way to put graphics into **geoWrite** documents straight from the keyboard. Because they are fonts, you can put text right next to them!

For more information contact Scot Derrer, 1529 Longmont Ave, Boise, Idaho, 83706-3731.

If you've got something to LIST or know of somebody or something that may be of interest to our readers, write to: **dieHard**, ATTN: LIST, P.O.Box 392, Boise, Idaho, 83701. User Groups Send us info on your group! We are especially interested in programmers and their projects. Drop us a line.

READY.



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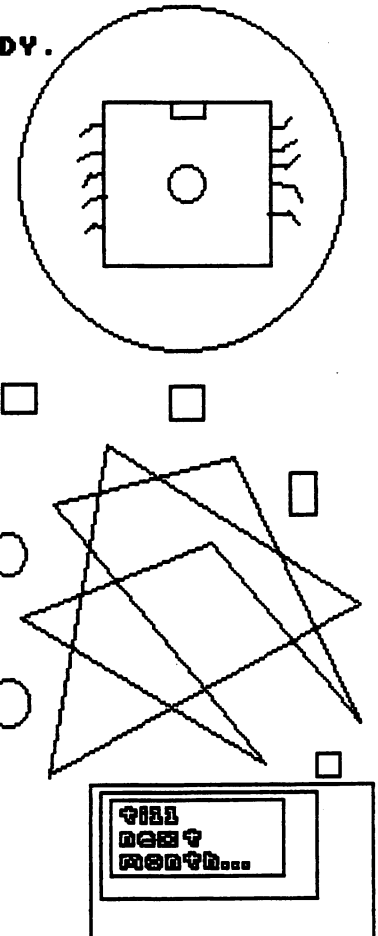
Write to **dieHard**, P. O. Box 392, Boise, ID, 83701.

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