

# dieHard

the Flyer for commodore 8biters

Archaic Computer Comes Of Age.

The Elusive Commodore!

What Has Happened?

The Results Are In!

Reader Survey Results

Wrestle Mania?!?

No -- Booting GEOS for  
the first time!

DOS Bugs and Quirks

Some bugs to avoid.  
Covers CBM and CMD devices.

Collector's Corner

Archaic Computer's new column.  
This month -- the fundamentals!



# Spotlight On LOADSTAR

by Brian L Crosthwaite

This month, we're barely scratching the surface -- this issue of *LOADSTAR* is loaded! *LOADSTAR* #121 is actually the 10th anniversary issue -- not 120! But then I wasn't the one who caught the error, you'll have to read *Diskcovery*. The celebration continues!

This one is puzzle intensive. Fun and games for all kinds, music, graphics and more.

On this issue you will find a really interesting article on calendars. The Julian calendar and what happened to it and why. The Gregorian calendar, where it came from and well... why. I found this article a fascinating bit of history.

For you geoPhyles there are preferences with various pointer alternatives. John Elliott did the editing so you don't have to. There is also a geoPaint document that is out of this town. Town? You'll just have to see it...

1581 partitions got you down? You'll find plenty of information here. Ernest Barkman takes you through it from start to finish. From Commodore's infamous manual to what is really going on. And there's a handy-dandy (technical term) utility that takes the hassle and confusion out of partitions.

New music! Greek! What more could you want!?!?

I know I've mentioned this before, but since I'm such a graphics buff I'll say it again. *LOADSTAR* has a neat feature that allows you to view the title screen picture after you've gotten *LOADSTAR* booted up. Those with fastloaders that blank, garble or do both to the screen will be able to see Walt Harned's wonderful art. In this case it's a picture of

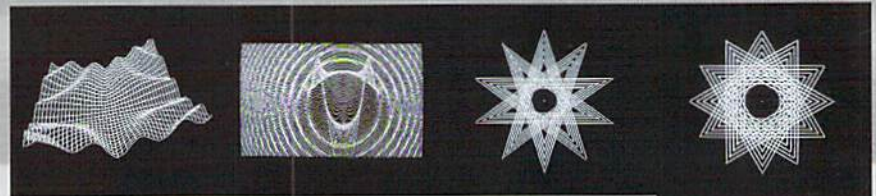
Chuansey the *LOADSTAR* Hippo. (I think it's wonderful that they can have a Hippo. We had to get rid of ours because of the darkness here in the Underground. But rest assured, Chelley the *dieHard* Hippo is doing fine in the San Diego Zoo munching Hippo hoggies and catching mucho rayos!)

Speaking of Walt's art. *LOADSTAR* now has what is quite possibly the first commercial software release on FD format. I'm talking, of course, about *The Complete Walt*. *The Complete Walt* comes on either seven 1451 disks, three 1581 disks or one FD-2000 disk!

What is *The Complete Walt*? All of the art work that *LOADSTAR* has published over the last few years done by none other than Walt Harned. All the original slideshow programs are used. That means that multi-media productions like *Dance of the Towers* has all of Walt's art, all of Dave Marquis' translated music, all of Fender Tucker's written story, all the original programming as it appeared when it was in *LOADSTAR*!

This collection is a must. If you have only seen a little of Walt's art, then you already know what an incredible artist he is and how he has truly mastered his medium -- the C64. There are a lot of pictures here, so plug that SX into your big screen and your FD into your SX and break out that bottle of 1984 Volapolicia and enjoy the fine art of Walt Harned.

READY. ■



Rarity

The graphics featured in this month's issue are **Western Heritage** from Horse Feather Graphics. What is **Western Heritage**? A complete package for use with **Print Shop**. There's clip art, borders and fonts. Make wanted posters of known outlaws! Create greeting cards with a western flair! Send secret messages written in Indian symbols -- many are authentic from many western tribes. This is not just a collection of clip art, but a whole kit that has detailed instructions to help you get the printout you want. Clip art comes in both two and three block on the same disk. **Western Heritage** is available from Horse Feather Graphics, North 27310 Short Rod, Deer Park, Washington, 99006-9712 for \$24.95 plus \$4 shipping (U.S.A.) or \$5 shipping (Canada).

READY. ■

## Found Only on the Spinner!

Of course there are the regulars on this month's *Spinner* -- *Basic BASIC*, *PRG* and any other tidbit from the *Flyer*. You will also find the complete **Mathographs** from master mathematician Rick Hedrick, along with Part II of his **ChartPaint** for GEOS. Some of the **Matho-graph** have been converted to VIC20 and plus/4.

This month's challenge moves over to the C128. **Taxes**, by Steven Thompson is a great shoot 'em up and destroy 'em arcade style game for the eighty columns. Sounds like it's finished, what's the challenge? The hole game uses normal keyboard characters. The

challenge is to two fold -- first add redefined characters and second add a back ground. Or how about smooth side to side scrolling with the VDC? It's up to you, should you accept the challenge, as to what to do next! And remember, should you, or one of your agents get caught, the CBM will disavow any knowledge of your activities. This disk will selfdestruct in five seconds. Oh, sorry, we just got *FX* in our area and I saw an old rerun of *Mission Impossible*.

For you HAM Radio enthusiasts, you'll find **Dove Hex Converter**. This is for the dieHard stuck on two meters on

satellites such as MIR and DOVE who'd like to decode the DOVE telemetry.

For the PET/CBM and VIC20 crowds, there's Premena's **Decimal to Binary Conversion**. The name is longer than the program, which will run on *any* commodore machine. For display, there is a separate VIC20 version.

There's more, but we've, once again, run out of space!!!!!!

READY. ■



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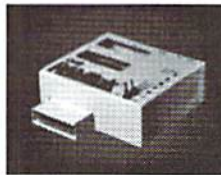
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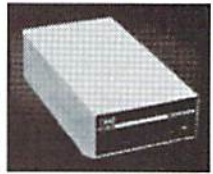
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# View From The Underground

By

Brian L Crosthwaite



Well, everyone is eagerly awaiting the news. In April, Commodore rocked the world with a vague announcement that told us nothing. Nothing. Are they out of business? Probably. Are they selling to another party? Possibly. If so, who? Will they simply transfer the entire company to the new parent or will this be the last we ever hear of the company that took the computer market place by storm in the late 70s and early 80s? Will there be more? We hope so. Will it affect *dieHard*? Not really.

Let me clarify something before I start my normal incessant ramblings. Last month, I said parts were manufactured by third party for sometime now. I meant to say they were made available from a third party for some time now. Even the special parts that Commodore Semiconductor made, like the 6510, the SID, and the VIC II. My favorite rumor combination goes like this:

Because of fuzzy lines between the 8-bit and 32-bit technology, or simply because the attorneys involved don't know where to draw the lines or just don't care, the two sets of technology go together. Atari buys Commodore. Atari is headed by Jack Tramiel -- ah, justice at last.

According to Kelly Stowe, the author of *Cast in a Veil of Fog*, Atari is dying too. Something I've known about, but that is another computer and

another story altogether.

Keep in mind these are only rumors and should be taken with a block of salt -- yeeeee.

This veil is the mystery, that should unfold soon -- at least we hope!! I know it's driving me crazy and I'm sure the wigs involved would like the world to forget about it and let the world just go on. But I care.

Well, where am I now? In a basement office about 15 feet from where I typeset the very first issue of dH. For those curious about Voyageur Studio, VS is a hobby place for me. It is a sound studio where I make my radio shows, record my music and do special graphics. The main computers in VS have always been commodore 8-bits. I do have a couple Atari 16-bits and hope to get an Amiga. I have a CDTV in my office and would love to have one for VS. This is studio 'D,' however the story of the letter is too long for even these ramblings.

I'm typing on a plus/4 computer, using it's built-in word processor. A Goldstar 19 inch color tv, won in a contest, is my monitor. Its plugged into a VIC-Switch that allows my plus/4 to share my 1541 and my MPS1250 printer with my VIC20. Behind me is my CBM 2001 series professional computer with a CBM model 4040 and datassette. I'm covered

as far as the commodore 8-bits go. Noesis, my C64, still awaits either a monitor or a new RF modulator.

Speaking of old equipment, some may be intersted to know about **commodore** related items from yesteryear. Enter Gil Parish and *Collector's Corner*. Each issue Gil will bring us the low-down on items from the grass roots of the computer revolution. *Collector's Corner* makes its debut this issue!

The new system I have at home has a printer interface bug that has been preventing me from accessing my modem. When I finally do manage to access the modem, it won't let me save things to disk. This is bad. I can't get online, unless I'm at work. Q-Link is a nighttime activity. So I need to get online in the evening. I have manage to catch up on my E-Mail on the 4th. This bug will soon be fixed -- one way or the other.

I am on Q-link and Delphi as 'dieHard0.' By the time you read this I should be online just about every day/night.

Speaking of 'by the time you read this,' by the time you read this *dieHard* will have a new Associate Editor. (I'm writing this on July 5th.)

I've seen his work and I know his convictions to the **commodore**, I can assure you, the readers of *dieHard*, that he will bring to *dieHard* only excellence.

More great news, LynnCarthy Industries, Inc., *dieHard*'s parent company, has become Performance Peripherals' U.S. distributor. The BBG [Battery Backed GEOS RAM] is available in 512k, 1Meg, and 2Meg. The BBU (Battery Backed Unit) will allow your GEORAM, commodore 17xx REU (any size) or any equivalent REU to have it's contents become nonvolatile. The BBRTC (Battery Backed Real Time Clock) allow you to have a clock that runs all the time -- even if you turn your computer off. It can be setup to set the clock in **GEOS** upon booting, so you don't have to. The BBU and BBRTC do *not* require **GEOS**.

I know this sounds like an add, but what the hey. I will be doing a REVIEW! on each of these items fairly soon. I know this my seem self-serving, but we feel what they have to offer is something you should know about!

Well, enough of the incessant ramblings of a programmer gone mad -- enjoy this month's *dieHard*!

**READY.**

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# INPUT;

I have recently become a dieHard fan and want to thank you for helping to continue the legacy of the Commodore computer. With *Run* gone and *Compute* leaving us in print, we, the uncanned computerists have few corridors for Basic knowledge in computers.

I enjoyed *Basic BASIC* by R. Scot Derrer in the April '94 issue on manipulating string data. It was one of the hardest things for me to comprehend. Now it seems so easy!

Since then, I have solved a problem I've had for a long time. While dealing with calculations on my C64, just adding plain dollars and cents, I always had to deal with totals coming up like this: \$45.1 or \$45. Well, I want my zeroes. So, I came up with my own routine to give me back my zeroes. I call it "The C64 Zero Factor", and here it is:

```
10 PRINT "[CLR]":INPUTTT
20 TT=INT(TT*100+.5)/100
   :TT$=STR$(TT)
30 XX$=RIGHT$(TT$,3)
40 IFMID$(XX$,1,1)<>". "
   :THENIFMID$(XX$,2,1)<>
   : ". "THENPRINTTT$+".00"
50 IFMID$(XX$,2,1)="."
   :THENPRINTTT$+"0"
60 IFMID$(XX$,1,1)="."
   :THENPRINTTT$
```

Test the routine by running and inputting a figure like 45.102. Line 20 will convert the figure to hundreds. Line 50 will insure the zero is printed. Now try some of your own numbers. Julian M. "Mel" Day of Violet, Louisiana.

*That's a neat little routine. There is one similar on the dH Shoplister PRG for the C64. Scot does a great job with Basic BASIC and has many followers.*

*If you want a simple routine*

*to list out the numbers so that the decimals line up, check out this month's Q & A.*

Enclosed please find my three disks and documentation for word processing on the PET. My PET is a 2001 with a 2040 dual floppy drive (October, 1980), but our helpers of the disabled should be able to use these with the help of other contacts.

I now use **Bank Street Writer** with the C64, but my PET is still up and running.

My best to the family who wrote to you and to their fine son. The items I enclose are gifts to them. George R. Talbot of Orange, California.

*Back in April we ran a letter from Rober Klinger of Ann Arbor, Michigan. His son started a non-profit corporation to help the disabled, Furthering Independence for the Disabled. FID finds things that help the disabled, including computers and software. They have some PET computers that need word-processors. They also need funds. Unfortunately, the address got delete along with all the Q & A addresses. For those wishing to donate software, computers, money or other items that are of use, here is that address: FID, c/o Robert Klinger, 2015 Debenshire, Ann Arbor, Michigan, 48104.*

Thanks for being there! Wonderful "flyer." I just got my first issue today. It's nice to write a letter like this to someone who knows what a "SID" is.

Speaking of SIDs, I would like to request that you prompt your readers to see if there is as much SID interest within them as

there is within me. I still write SIDs just as much as I did when I started back in 2/91. I also have the stereo SID cartridge (don't know how I ever did without it). Maybe, with enough interest/support, a media/correspondence network between dieHard SIDders may be established. These days, without calling a BBS somewhere in never, never land, the only person I can share my SIDs with is my wife (she patiently listens and says, "That's good, dear."). Maybe sharing hints, envelopes, etc., would be nice. Please consider. Thanks. Oren Adams of Glenburn, North Dakota.

*Sounds like a great idea! Any dieHards out there interested in SIDfesting? Send any SIDs and/or info on SIDding to the SID Information Exchange, 816 West Bannock Street, Suite 502, Boise, Idaho, 83702. The SIDIF is an area like the Traders Corner. We will list tips and information as well as a listing of PD-SIDs as they come in.*

First, I like your magazine! Second, in the April dieHard Q&A section, J.R. Crawford of Houghton, LA asked a question about using his printer's resident fonts with geoWrite.

There is a shareware utility called **TextPrint 2.5** available in the Commodore Flagship library on GENie (and maybe elsewhere) that does just what he wants. After typing your geoWrite document using a modified Commodore font (supplied) and any style such as **bold**, *italic*, underline, sub or super scripts and doublesized, you first update the file, then click on the **TextPrint** desk accessory. A file selector pops up, choose which file to print,

and go. The desk accessory only works in 40 column mode, so it won't show when using geoWrite 128 80 columns. The solution to this is to update your file, exit geoWrite, switch to 40 column mode and double click on the program, and continue. Also, you cannot have any graphics in your documents. Hope this helps!

I would enjoy reading some spreadsheet and database reviews in future issues. Ron King of Fairport, New York.

*Sounds like a nifty program. We'll have to get a copy for the dHPDL!*

*We are planning a column on Superbase soon. I think you'll be amazed at what it can do. Maybe we can talk Noel into some REVIEW!s along these lines...*

I just got the April issue. Great as always! COVER: DON'T MESS WITH OUR MINDS!!!

About Q&A: John Shaw asked about linefeeds and **Paperclip III**. The question asks how to get rid of them, the answer tells how to put them in. I don't know which is a typo. PC has printer files for this type stuff. If he can't find one for his printer, there is a program on the disk called "printer setup" which will let him make one. **SuperGrafix** will let you set linefeeds, as follows:

```
OPEN I,4,15
PRINT#1,"FN" to put'em in
PRINT#1,"FY" to take'em out
CLOSE1
```

I don't know if PC resets these.

He could also check the DIP switches on his printer or set the SuperGrafix to 1525 emulation

# READERS



and use that printer file. That's all I can think of.... I don't know if all these things are in PC III. Mine is older (mentions the 64 80-column adaptor. I've seen a picture of one of these -- looks like an REU on steroids!!!)

That's it for me. Renewal should be out in a few days. See ya! MarkPgo of Q-Link fame.

*The typo would be my answer. A secondary address of 1, 5, or 8 will setup without line feeds. Thanks for catching that!*

In your April issue, Ed Harler asked about the spellchecker for **The Write Stuff**. In addition to Busy Bee Software, many user groups sell **The Write Stuff**. Fresno Commodore User Group offers the spellchecker to non-members for \$10.00 plus shipping. For a complete list of **Write Stuff** and other products offered by our group, send a self-addressed, stamped envelope to:  
Fresno Commodore User Group  
P.O.Box 16098  
Fresno, CA 93750.  
Dick Estel of Fresno, California.

I just wanted to say thanks to the overwhelming response of individuals who offered me help searching for the HOBBIT. I am up and running again. Thanks also to the staff of *dieHard* for making the connection and forwarding the letters. You are all appreciated.

On another note, I would like to mention I never cared much for GEOS. The greater portion of this magazine seems to be dedicated to that environment. I would like to request a bit more attention to we "command line" kind people and the C64 and C128 in their native modes. G.M. Walter, Jr.,

of Richmond, Virginia.

It was a pleasant surprise to find my letter and postcard quoted in the April '94 issue of *dieHard*. It was especially nice to know my letters are getting through, even though the "Traders" aren't responding. Of course, there also seems to be a rash of advertisers who don't answer inquiries. This doesn't include *dieHard* advertisers. They even answer when there's no chance of a sale. I've only had one problem (which I don't count against the advertiser), and that was settled quickly and in a no-hassle manner. No one can ask or expect more.

The main purpose of this letter is to answer a couple more "Trader" ads and learn a little more about the system. When do you notify the people of answers to their ads? (It could be that the lag is due to waiting for replies to come in.) Is there any way to speed up or eliminate the lag time? (The ad place could send a couple of SASEs or postals, which would allow you to notify them within a week of receiving a reply.) Ed Harler of Levittown, Pennsylvania.

*The back log on Trader's Corner has gotten way out of hand. We now simply publish the name and address of the person who places the TC, thus eliminating dH from the cycle.*

Enclosed find a copy of my letter, dated 3/30/94, to The Grapevine Group, 3 Chestnut Street, Suffern, New York, 10901. I believe the letter is self-explanatory in that I've encountered some difficulty in getting a response from these

people. I've allowed an additional two months to go by before bringing this matter to your attention.

While you are certainly not responsible for the way your advertisers conduct their business, I feel you should know of any dissatisfaction that may occur; and I'm certainly dissatisfied! At this moment, I could never recommend that anyone place an order with them.

I expect no direct action on your part, but perhaps your readers might wish to know.

LETTER COPY TO GRAPEVINE:  
Dear Sir or Madam:

On 10/31/93, I sent my check #3604 in the amount of \$17.95 to you for one (1) C64 keyboard. This check was deposited by you on 11/9/93 at Nanuet National Bank and credited to the account of The Grapevine Group.

Since that time, you have had the enjoyment of my money; I, however, have not had the enjoyment of the merchandise ordered, nor have I ever received an acknowledgement of this order.

I have made several attempts to dial either of the two numbers given in your ad but finally gave up on this after constant busy signals. I expect a response to this letter within 15 working days. If you are unable to ship the C64 keyboard, I will expect a full refund.

My order was placed in response to your ad in the October issue of *dieHard* which still carries your ad and editorially recommends your company to its readers. If I receive no satisfactory response in the time allowed, I shall advise *dieHard* magazine of this situation and send them a copy of this letter for publication.

Rodney D. Focht of Reading, Pennsylvania.

*There have been a number of complaints concerning The Grapevine Group lately. It appears they have bitten off more than they can chew with the Commodore Liquidation they had received. I can only imagine that they are going through the enormous volumes of orders they have received and slowly filling them as best they can.*

*They should have gone through and done an inventory on what they had prior to listing anything they had to offer. When the orders started to pour in they should have hired at least a few temps to handle orders. But I don't know the entire situation.*

*I do know that they haven't sent me my C65 yet. Thus people wanting support for this machine can't get first-hand knowledge from us. My secretary has called countless times, being told they do not have any. I was never contacted and asked weather or not I wanted the unit regardless of the fact that only PAL units were available. Not a very profession thing to do to someone who was on their side.*

*I hope things turn out right. We need a C65 and it would be nice to see everyone get their merchandise and the Grapevine Group get back on track. They have been one of the best places to get parts for the 8-bit commodores for sometime. I'd hate to see them loose business because of everyone who has ordered from them in the last six months not being happy.*

READY.





# Rari



**User Groups:**

Commodore Users of Lynchburg  
238 Twin Oak Dr  
Lynchburg VA 24502

Southtown Users Group  
West Seneca Rd  
West Seneca NY

CCC  
1192 S Nome  
Aurora CO 80012

PCUG  
P.O.Box 6561  
Portsmouth VA 23703

PBUG  
417 W Phirne Rd  
Glenburnie MD 21061

LVCUG  
P.O.Box 2  
New Tripoli PA 18066-0002

UWCUG  
P.O.Box 25878  
Seattle WA 98125

CHLB  
P.O.Box 7293  
Long Beach CA 90805

Corning Glass Works User Group  
3708 St Rte 271 West  
Greenville OH 45331

MDC/RCC Comsig  
P.O.Box 34088  
Saint Louis MO 63134

MCUGA  
5027 Vera Cruz Ave N  
Crystal MN 55429

Western Slope User Group  
P.O.Box 81  
Mack CO 81525

SWRAP/64 Inc.  
P.O.Box 342  
Bedford Park IL 60499-0342

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P.O.Box 16126  
Pittsburgh PA 15242

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P.O.Box 404  
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Hattiesburg MS 39402-1046

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Eureka CA 95502

TCCUG  
c/o Vestal Library  
Vestal NY 13850

So Bay Commodore User Group  
P.O.Box 1176  
Redondo Beach CA 90278

OCCC  
1855 Park Ave  
Costa Mesa CA

Abilene Cursor Control  
P.O.Box 6261  
Abilene TX 79608

South Toledo Commodore  
Computer Club  
P.O.Box 3167  
Toledo OH 43607

SMUG  
P.O.Box 1762  
Lilburn GA 30226

S.I.C.K.  
818 E Main St  
Olney IL 62450

ACUG  
P.O.Box 3095  
Burlington NC 27215

North Virginia Commodores  
9206 Annhurst St  
Fairfax VA 22031-1902

ACUG  
P.O.Box 27201  
Tempe AZ 85285-7201

The Register  
P.O.Box 52473  
Tulsa OK 74152-0473

COMBUG  
48A Old Lyme Ave  
Williamsville NY 14221

Fox Valley Computer User Group  
P.O.Box 28  
North Aurora IL 60542-0028

OPUG  
1415 S Cherry St  
Port Angeles WA 98362

CVCUG  
19 Sandlewood Rd  
Burlington VT 05403

MWCUG  
P.O.Box 9311  
Highland IN 46322

New Dimensions  
P.O.Box 37127  
Albuquerque NM 87176

GCUG  
11340 Rambling Rd  
Gaithersburg MD 20879

Twin Tier Commodore Club  
512 Jefferson St  
Elmira NY 14904

SYNTAX  
P.O.Box 441242  
Houston TX 77244-1252



# ties



by R. Scot Derrer

Stockton Commodore User Group  
714 E Oak St  
Stockton CA 95202-2229

BCS C-Users Group  
101 First Ave  
Waltham MA 02154

Basic Bits Commodore Group  
P.O.Box 39447  
North Ridgeville OH 44039

Warren Kazakiewich  
P.O.Box 77  
West Wardsboro VT 05368

CCC of Columbia  
2800 Cliffside Dr  
Columbia SC 29053

Saskatoon Users Group  
2614 Ahaultain Ave  
Saskatoon SK S7J1R6 Canada

Houston CHUG  
P.O.Box 441252  
Houston TX 77244-1252

Computers North  
P.O.Box 34534  
North Kansas City MO 64116

CPU  
5168 E 65th  
Indianapolis IN

CCCC  
5575 Pleasant Hill  
Milford OH 45150

Crash 64  
P.O.Box 241  
Salem OR 97308

Beach Computers  
Hwy A1A  
Satellite Beach FL

CUGV  
P.O.Box 3325  
Venice FL 34293

VCUG  
2807 NE 99th St  
Vancouver WA 98665

Classic 64 Preservation Society  
660 Walton Dr  
Red Bluff CA 96080

RACUG  
920 Mayowood Rd SW  
Rochester MN 55902

C.O.O.K.Y.  
3807 Krysta Ln  
Oboro KY 43202

CWSAT  
P.O.Box 380732  
San Antonio TX 78280

PCUG  
P.O.Box 11293  
Newport News VA 23601-9293

TCCUG  
P.O.Box 8439  
Topeka KS 66608

GOCUG  
13 E Bayshore Blvd  
Jacksonville NC 28540

PAPUG  
2508 N Rockwood Dr  
Peoria IL 61614

CUGOS  
P.O.Box 607  
Springfield MO 65801

Pittsburg Commodore Group  
P.O.Box 16226  
Pittsburg PA 16242

Harlingen GUG  
1900 Grace  
Harlingen TX 78550

S.U.C.C.E.S.S.  
110 Grace Dr  
Pasa Robles CA 93446

**Change of address notices:**  
Commodore and CP/M SIG of the  
MDC/RCC  
P.O.Box 34088  
St. Louis, MO 63134

DVCUG  
1896-D Lynwood Rd.  
Concord, CA 94520

SCCC  
6896 Cherrywood Cir.  
Sacramento, CA 95823-5309

**BBS:**  
Sportsmen's Network  
208 Manor View Ave.  
Mt. Pocono, PA 18344  
(717) 839-2948

**Support:**  
Capestany Computer Repair  
P.O.Box 2802  
Titusville, FL 32781  
(407) 267-4222

Yanney Software  
P.O.Box 224  
Lebanon, PA 17042

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134 Rd 2390  
Aztec, NM 87410

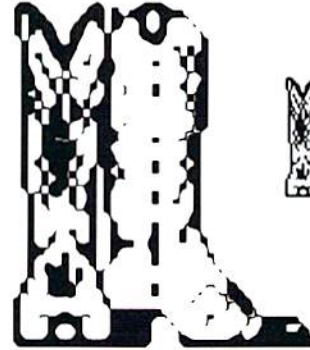
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Georgetown, IN 47122

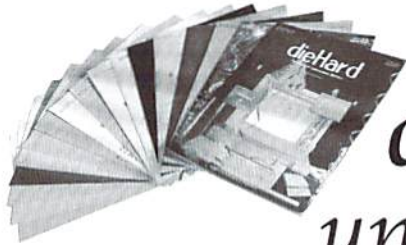
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# dieHard

the Flyer for commodore 8biters

# Cast in a Veil of Fog

by Kelly Stowe

## Commodore Unplugs

On Friday, April 29, 1994, at 4:10 pm, Commodore International Ltd. transferred its assets to trustees "for the benefit of its creditors" and placed its major subsidiary, Commodore Electronics Ltd. into voluntary liquidation. After that, the facts are sketchy and few, and the rumors plentiful.

Commodore International posted its last profitable quarter ending March 1992. Starting in June of 1992, the company started to post losses at a rate of over \$20 million per quarter, with a whopping loss of \$177.6 million reported in the quarter ending March 1993 alone. CI repeatedly cited an unfavorable exchange rate and a "soft market" in Europe as the reason for those losses.

In March of 1994, Commodore announced that without outside financial help, it could be forced into a reorganization or liquidation proceedings, and that it was trying to negotiate a restructuring with its creditors. That month, the Australian subsidiary, Commodore Business Machines (Australia) entered into liquidation, with total debts of about AU\$3 million. The New York Stock Exchange reviewed Commodore's eligibility for continued listing and stopped trading on the stock due to trade imbalance. In April, Commodore International Ltd. instituted its own liquidation proceedings.

Commodore has been remarkably tight-lipped, giving rise to wild speculation and rumors. The legal department will not give official information in answer to any question but will only verbally confirm that Commodore International Ltd. has filed for liquidation, as was reported in

the Wall Street Journal and elsewhere, and that Commodore Business Machines, Inc. is involved in bankruptcy proceedings.

In releasing March's quarterly earnings report, CI said its creditors included suppliers that have sued the company. The release did not describe the nature of the lawsuits, and the company did not make a spokesperson available. In the earnings report released in December 1993, CI stated that it owed \$17.4 million in secured loans to a company controlled by Commodore's Chairman, Irving Gould. On January 31, 1994, Commodore defaulted on a \$3.3 million loan with Prudential, despite repeated extensions.

Commodore, in conjunction with Microsphere, Inc. had announced in March that many Amiga products, including the Amiga 1084S monitor and the US version of the Amiga 1200 computer, would again be produced by Commodore and available in the United States through Tenex Computer Express, in Mishawaka, IN. According to Roger Dooley, president of Microsphere, Tenex will continue to supply products to support the Amiga and the Commodore 64, including software for the Commodore, but will not have the Amiga computers.

CEI, a large US Amiga distributor, released a statement that the distributor had been "working closely with Commodore's management and major investors," and that the liquidation of Commodore International did not affect the subsidiaries Commodore Business Machines USA, Commodore Business Machines Ltd. Canada, Commodore/Amiga

UK, or Commodore Germany, or any Amiga operations. CEI stated that Commodore operations would "continue normally." However, Commodore International confirmed that Commodore Business Machines was indeed in bankruptcy proceedings, and Newsbytes reported that Commodore Business Machines Ltd. Canada transferred the right to sell Commodore PCs to most buyers to another company, 3D Microcomputer Wholesale and Distribution (Canada).

So what happened to the little typewriter company from the Bronx that stood the computer industry on its ear in the 1980s? Commodore is split into so many international subsidiaries that it is difficult to tell which Commodore is liquidating or bankrupt and which is not. Karla Bode, a spokeswoman for the Commodore Bueromaschinen GmbH in Frankfurt said that "some" of the 35 Commodore units worldwide have already been liquidated, but that others would "probably" continue operations.

Despite the closing of Commodore, Commodore supporters like Tenex and LOADSTAR remain optimistic. "Commodore's death means little to us," Jeff Jones of LOADSTAR said. "We'd be complete and utter fools to drop our loyal subscribers." Roger Dooley of Tenex agreed, adding that his company has a history of providing products despite a lack of cooperation from Commodore.

"In the long run, this will mean little," Jones said. "We're all pioneers."

**READY.**



Rumors have been circulating about Commodore's demise every year since 1985. Recently, wild rumors circulate on the Internet and elsewhere as to which investor groups plan to buy out Commodore technology, and what Commodore's liquidation means to users. Disgruntled ex-employees and other Monday-morning quarterbacks have proposed numerous theories concerning management at the company and who should take the blame.

The most persistent rumor is that Commodore is/was/will be bought by Samsung. One BBS even went so far as to publish a time and a date of the supposed purchase. The latest twist to this rumor is that Samsung pulled out of the negotiations in the Bahamas. Other rumored investors are Phillips, Sony, Hewlett-Packard, 3D0, Panasonic, Apple, Atari, NewTek, Bill Gates, and Ross Perot.

It has been proposed that Commodore's different technologies would be sold to separate buyers (for example, Amiga to Samsung and the 8-bit technology to Phillips). The current theory is that Commodore is going as one complete package, 8-bit and 32-bit together, because the lawyers involved aren't smart enough to figure out which is which.

Commodore's new products, rumored to be introduced soon, will most likely be vaporware: this includes the new C64 with internal 3 1/2" drive (not to be confused with the C65), the A1000+, the A3000+, and the AAA Amigas.

It is repeatedly reported that there are only 2 or 3 employees at any given Commodore subsidiary overseas, not hard to believe when the only people answering phones are the security guards.

Most management criticism centers around Commodore's complete lack of marketing and advertising. Allegedly, Commodore's head of marketing, John DiLullo, made statements to the effect that help in promoting the CD32 by Amiga owners was not even welcomed (later, DiLullo apparently tried to clarify his remarks, saying that he was referring to "fanatical" owners).

One individual called Commodore's Chairman Irving Gould and President Medhi Ali "two of the world's largest kneebiters" (and the current hype over multimedia computers "ult.crap.cheese.worship").

# The Count Down

by Kelly Stowe



4/30/92 Net income Mar 31 quarter \$4.1 million.

6/21/92 Stock is \$11/share at this point.

8/20/92 Commodore "surprised" investors by first posting loss: Jun 30 quarter, \$21.9 million. Securities analysts expected "slim profit." Stock drops to \$6.875 from previous \$9.125. Ronald Opel, stock analyst says this is a "huge disappointment," but he thinks things will get better after Commodore's "usually strong Christmas selling season," citing a respectable balance sheet and cyclical patterns in the company's performance. Commodore says a "soft market" in Europe is responsible for the loss.

11/6/92 Net loss Sep 30 quarter \$18.8 million.

11/6/92 Commodore again cites "soft market" in Europe as cause of loss, especially weak in Germany. Ronald Opel thinks Commodore will recover when the European economies begin to bounce back in 1993.

2/5/93 Net loss Dec 31 quarter \$77.2 million.

2/5/93 Commodore stock goes down to \$5.50 after posting loss. Although it cost \$50 million to close and consolidate operations in Hong Kong and Germany and transfer these operations to the Philippines, Commodore claims its losses are due to an unfavorable exchange rate in Europe. Irving Gould is "extremely disappointed."

6/1/93 Net loss Mar 31 quarter \$177.6 million. Although \$135 million is a charge to write down assets and restructure, Commodore is still blaming "economic softness" in Europe. Again, Irving Gould is "extremely disappointed."

6/21/93 Stock is down to \$2.87. Commodore is already in default on a \$33 million loan with Prudential and has until 7/31/93 to restructure its debt.

11/15/93 Net loss Sept 30 quarter \$9.7 million.

12/31/93 The Commodore financial statement and footnotes state, among other things, that Commodore is in non-compliance with the note agreements on \$33 million of senior notes held by two institutional lenders (according to the Washington Post on 6/22/93, at least one of those lenders would be

Prudential, and the waiver extended by the lenders would be expired January 31, 1994). It also states that a company controlled by the Chairman, Irving Gould, loaned a total of \$17.4 million to Commodore in secured loans.

2/22/94 (Wall Street Journal) "PC Shipments in Europe Fell in Quarter, With Commodore as the Biggest Loser" (headline). The story, from London, is how horrible the recession in Europe is for computer manufacturers, particularly Commodore, who removed their entire line of "IBM-compatibles" from the market. However, this same story states "If Commodore results are ignored, the rest of the PC industry looks a lot healthier with unit sales rising 9.8%," with a jump of 30% for Compaq alone.

3/2/94 Microsphere and Commodore announced that many Amiga products would now be available through Microsphere.

3/26/94 Commodore stock falls to \$3 a share after announcing it posted a loss of \$8.2 million for the Dec 31 quarter. Commodore said that without additional financial help, it could be forced into a reorganization or liquidation proceedings. Dow Jones reports that NYSE is reviewing Commodore's eligibility for continued listing.

4/4/94 Commodore's Dec 31 quarter loss causes panic stock sale. Trading is stopped on Commodore stock on 4/5/94 due to trade imbalance.

4/24/94 Marriott is listed as a creditor in the amount of \$350,000 "for last year's Devcon."

4/29/94 Commodore International announced today (Friday) it is going out of business, and plans to transfer its assets to unidentified trustees "for the benefit of its creditors," and has placed its major subsidiary, Commodore Electronics, Ltd., into voluntary liquidation.

Today? Who knows...

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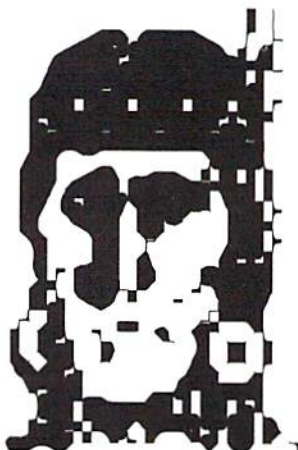
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The following is a list of bugs and quirks associated with the latest HD DOS v1.82 and earlier. Except for a few, most of the bugs appear to be harmless in nature. Some of these problems have been corrected in the DOS used in the FD high density floppy drives (v1.34).

○\_The change directory command does not check if a name is a valid subdirectory. For example, if you type "CD:NAME" where NAME is a non-DIR type filename, the HD drive will display a trashed directory. It appears that if a file were to be subsequently saved after issuing this command, the directory structure and/or files could be permanently corrupted.

○\_A little known command available in all **commodore** drives allows you to copy and append (concatenate) multiple files to an existing file. The command is:

```
"CO:FILE1=0:FILE1
, FILE2, FILE3, FILE4"
```

The files should be text in nature (e.g., SEQ type files), and both drive numbers are required in the string for the command to function (a leftover from dual drive DOS). On the HD, the command doesn't work and can cause the drive to go off into never-never land... never to return. What harmful effects it may cause are unknown.

○\_If you mistakenly try to load a non-PRG file, the drive reports a "DRIVE NOT READY" rather than a "FILE NOT FOUND" error.

○\_The FD drive allows selecting partitions above 31. For example, "@CP65" returns a "02,PARTITION SELECTED,65,0." Other numbers between 32 and 254 are also accepted depending upon how many partitions are formatted on the disk. If you send any subsequent command to the drive, it will report a variety of messages from "DRIVE NOT READY" to "ILLEGAL BLOCK", etc.

The next list of bugs and quirks are not unique to the HD or FD drive. They're also found in all **commodore** drives with or without **JiffyDOS**.

○\_When creating a REL file, the drive goes into an endless software loop if the record length is omitted after the trailing comma or a record length of zero is used.

○\_If a file contains a single character, the drive will not report an end-of-information (EOI) condition after reading it. Subsequently, the STATUS variable is not updated, and a program will continue to read a few garbage characters past the end of the file.

○\_The drive fails to report an error and serial bus communication will be suspended if you attempt to PRINT# to a file opened for reading, or GET# to a file opened for writing.

○\_The drive will unlock a file, allowing it to be scratched if it is @saved/replaced or appended. It will also unlock a REL type file if it is opened for reading or writing.

# Bugs and Quirks

by Michael Gilsdorf

○\_DOS does not check if files are currently open before copying or concatenating them.

○\_When using the scratch or \$ command with filenames, the drive fails to report a "FILE NOT FOUND" error if the command contains more than five files, or if DOS fails to find a file in the directory that matches a filename in the command string.

○\_The drive fails to report errors and properly handle the following names when saving/loading a file. Once created, some files cannot be renamed, scratched, or further accessed without using a wild character (?). Some of these problems are caused by DOS not checking for a second equal sign or a null filename in the command string.

```
SAVE "$",8 File lost - no
error reported
SAVE "#",8 File lost - no
error reported
SAVE "=",8 File hard to
access (see note below)
SAVE ",",8 File hard to
access (see note below)
SAVE "x",8 File hard to
access (see note below)
SAVE "=x",8 File hard to
access (see note below)
SAVE ":",8 File hard to
access - scrambles directory
SAVE "x:",8 File hard to
access - scrambles directory
```

```
LOAD "$",8 No error reported
LOAD "$:",8 No error
reported
```

NOTE: The files as noted above can be saved multiple times with the same name (no error reported) and will appear more than once in the directory,

making further retrieval difficult.

○\_DOS sometimes ignores leading characters before a colon. The original writers of DOS intended it to handle both the short and long versions of a command. For example:

```
PRINT# 15,"COPY:FILE1
=FILE2"
PRINT# 15,"C:FILE1=FILE2"
```

Both will work. However, DOS looks at only the first character of the command to determine what operation to perform, then searches for the colon to find out where the file name begins. In doing so, it skips over any characters between the first character and colon. This allows DOS to use different names for the same command. For example, all the commands below begin with the letter C and are interpreted by DOS as COPY commands:

```
PRINT# 15,"CARROT:FILE1
=FILE2"
PRINT# 15,"COW:FILE1
=FILE2"
PRINT# 15,"CHILD:FILE1
=FILE2"
```

As a side effect, DOS will also accept any of the following as a way to open a file:

```
OPEN 2,8,2"TEXT:FILENAME"
OPEN 2,8,2" 0:FILENAME"
OPEN 2,8,2" :FILENAME"
```

○\_The drive does not report an error when opening a file to read, append, or modify while simultaneously trying to perform an @save with replace. Example:

```
OPEN 2,8,2"@0:FILENAME,R"
```

○\_The drive does not report an error if two or more files are opened with the same filename. Example:

```
10 OPEN 2,8,2,"0
:FILENAME,W"
20 OPEN 3,8,3,"0
:FILENAME,W"
30 OPEN 4,8,4,"0
:FILENAME,W"
```

Only two of the files will appear in the directory -- any others are lost. Because both files appear with the same name (one is a DEL file type) access is difficult without renaming.

○\_The drive does not report an error if one or more wild characters (? or \*) are used when @saving and replacing. This can cause the wrong file to be replaced. Example:

```
SAVE "@0:*",8
```

○\_The drive fails to report any error if an attempt is made to concatenate REL files. If you try, DOS will copy the first REL file correctly, but the other REL files will be appended without their side sectors. Access to records from these files is lost.

The last listing contains quirks and bugs found in 1541/71/81 drives with or without JiffyDOS. These problems have been corrected in the HD and FD drives.

○\_The 1541/71 drives do not always respond properly to the Position (P) command (RECORD command in BASIC v4.0 and higher). If a record was written that spans two blocks, a subsequent read or write to a record in the next block will either read the wrong record or corrupt the file by writing the

record to the wrong location. "Double-Positioning" (pointing once before and once after writing a record) will prevent the bug from occurring. This problem was fixed in the 1581 drive."

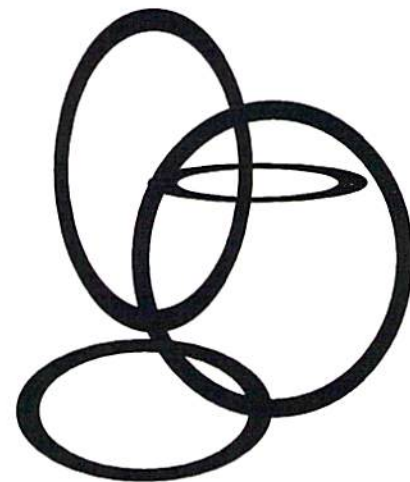
○\_When scratching files or displaying the directory, the drive will fail to process the fifth (5th) file in the command string if the filename contains wild characters (? or \*). Example:

```
S0:file1,file2,file3
,file4,fi?e5
```

○\_Some drives do not perform the Block-Allocate correctly. Sometimes an entire 1541/71 track is allocated, and at other times the BAM on the 1581 will be improperly allocated.

○\_Some older ROMs in 1541 drives caused an @save with replace to corrupt the disk BAM and file structure.

**READY.**





# BASIC

This is a series of columns on the syntax and techniques of BASIC programming. So far we have looked at many BASIC commands, with more to come. This month we'll continue with the TI\$, TIME\$, TI, and TIME commands.

## Formatting Time

Last column left you with the challenge of coding a formatted time field such as "HH:MM:SS". The following program illustrates one way of accomplishing that task; type it in and RUN it. Pressing <RUN/STOP> will stop the program.

```

10 TI$="000000":PRINT
   "[CLR]":REM46
20 PRINT"[HOME]
   [CTRL 9]DIEHARD'S
   12 HOUR COMPUTER
   CLOCK":REM85
30 PRINT"[2 down]
   ENTER THE TIME
   (HHMMSS):"INPUT
   TI$:REM65
40 PRINT"[CLR]":REM13
50 HH$=LEFT$(TI$,2)
   :MM$=MID$(TI$,3,2)
   :SS$=RIGHT$(TI$,2)
   :REM154
60 IF VAL(HH$)>12
   THEN HH$=STR$
   (VAL(HH$)-12):REM224
70 IF VAL(HH$)=0 THEN
   HH$="12":REM209
80 PRINT"[HOME]
   [CTRL 9] TIME: "HH$
   " : "MM$": "SS$

```

```

" [space]":REM251
90 GOTO 50:REM211

```

Now for the program analysis. Lines 10-40 clear the screen, display literals, and request user input. Line 50 disassembles the user input into three fields -- HH\$, MM\$, and SS\$.

converts zero hours to 12. Hours from 1 to 12 are taken as is. Line 80 displays the formatted time to the screen. Line 90 loops back to line 40 for a continuous display.

To change this program

```

:REM115
70 REM:IF VAL(HH$)=0
   THEN HH$="12":REM140
80 PRINT"[HOME]
   [ctrl 9] TIME: "
   HH$": "MM$": "
   SS$"[space]":REM251
90 GOTO 50:REM211

```

Another option to add would be user input editing to control the input. Without this, the input data could be invalid and accepted. Hours greater than 23 or minutes and seconds greater than 59 could be entered and not be correct. As it is, TI\$ will not accept incorrect values. Try entering 256978, 211975, 046413, or something similar that is incorrect. TI\$ defaults to zero if the numbers are outside the proper ranges; but without editing the input, the results may be unsatisfactory. And what if letters are entered? My point is, editing user input is important and essential for well-written programs.

## Time and TI\$e Delays

In a previous column, we covered time delay loops, using the FOR-NEXT commands. The following program illustrates that technique. Here, we briefly display a literal,



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When you break a string (TI\$) into smaller pieces, these smaller pieces (HH\$, MM\$, and SS\$) are known as *substrings*. Since this is a 12-hour clock, line 60 converts any hour greater than 12 to 23 to the proper hour value (1 to 11) by subtracting 12 from the input value. You'll notice some interesting codes here. We define HH\$ as a number value; and if it is greater than 12, we subtract 12 from the number value and format the result of that calculation back into a string value for screen display. Line 70

into a 24-hour clock, simply comment lines 60-70 by adding a REM: statement, and maybe change the literal in line 20.

```

10 TI$="000000"
   :PRINT"[CLR]":REM46
20 PRINT"[HOME]
   [ctrl 9]DIEHARD'S
   24 HOUR COMPUTER
   CLOCK":REM36
30 PRINT"[2 down]
   ENTER THE TIME
   (HHMMSS):"INPUT
   TI$:REM65
40 PRINT"[CLR]":REM13
50 HH$=LEFT$(TI$,2)
   :MM$=MID$(TI$,3,2)
   :SS$=RIGHT$(TI$,2)
   :REM154
60 REM:IF VAL(HH$)
   >12 THEN HH$=
   STR$(VAL(HH$)-12)

```



# BASIC



by R. Scot Derrer

then display nothing so the literal appears to blink. Changing the 500 in lines 20 and 40 will affect the length of the blinking. Press RUN/STOP to stop the program

```
10 PRINT"[CLR]
   [ctr]9]BLINKING
   DISPLAY":REM208
20 FOR T=1 TO 500
   :NEXT:REM149
30 PRINT"[CLR]"
40 FOR T=1 TO 500
   :NEXT:REM225
50 GOTO 10:REM179
```

As an alternative to using FOR-NEXT time delay loops, TI\$ and TI can be used to delay time. The following program illustrates this technique using the previous program example.

```
10 PRINT"[CLR][ctrl 9]
   BLINKING 1 SECOND
   DISPLAY":REM121
20 GOSUB 100:REM210
30 PRINT"[CLR]":REM7
40 GOSUB 100:REM238
50 GOTO 10:REM179
60 END:REM188
100 X$=TI$:REM22
110 IF X$=TI$
   THEN 110:REM144
120 RETURN:REM234
```

In line 100, X\$ is initialized with the current value of TI\$. At this point in time, X\$ and TI\$ are equal in value. Line 110 says that as long as X\$ and TI\$ are equal, keep looping

and rechecking their values. After TI\$ changes, in approx. one second, the condition in line 110 is no longer true so line 120 gets to execute which is a RETURN from a GOSUB.

Using the numeric variable TI offers even more possibilities. The next example demonstrates this

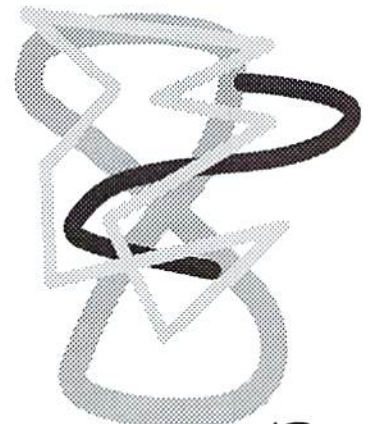
```
40 GOSUB 100:REM238
50 GOTO 10:REM179
60 END:REM188
100 X=TI:REM142
110 IF TI=(X+120) THEN
   RETURN:REM26
120 GOTO 110:REM50
```

Again, X is set to equal TI in line 100. Line 110 queries if TI is equal to X (set to 120 jiffies), then RETURN to the GOSUB. Otherwise, when line 110

multiply, and divide its value.

There are, of course, many ways to code these examples. My ideas are not necessarily the right or only way to program. As I learn, I change the way I code various routines. For me and probably many other programmers, designing, coding, and testing computer programs is a very personal and artistic endeavor. The relationship of man and machine... cyberpsychology or cychology, if you will. Well, my Time is up. Ha! The discussion on using TIME variables in BASIC programs is over. Next month will offer something new and exciting, so until then, "Be seeing you."

READY.



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technique. Essentially the same as the previous example, except that now, mathematical functions may be applied to TI.

```
10 PRINT"[CLR][ctrl 9]
   BLINKING 2 SECOND
   DISPLAY":REM119
20 GOSUB 100:REM210
30 PRINT"[CLR]":REM7
```

is not true, line 120 executes going back to line 110. If you want a longer or shorter time delay, simply change the 120 in line 110 to a greater or lesser number. One advantage of using the numeric variable TI is that you can add, subtract,



# C128 CP/M

## Trail Blazer in a Jungle Of Formats

by Mike Gordillo

This is the continuation of last month's column.

It is possible to save only one file per iteration of this cycle. In order to save many files, you will have to reboot CP/M and go through these steps for each file involved. This is a roundabout way to *write-back* to CBM DOS, and it certainly isn't as contained within CP/M as most of us would like.

### How do the exciting CMD FD-2000 and FD-4000 drives factor into all this?

They are covered insofar as the programs that support the 1581 also support them, namely the JUGGLER, MSDOSEM, and C128LOAD utilities, as well as the 28 MAY 87 Version of CP/M 3.0+ on the C128. The FD series drives do a pretty good job at emulating the 1581 and should present no problems under C128 CP/M. The 1581 is limited to around 800 kilobytes, and this may not be adequate for you. As far as accessing the high capacity disks within the scope of the FD drives, the key issue is software (again). For example, there is nothing in terms of hardware that says we cannot use these drives to play with MSDOS 2.88 megabyte formats (ala FD-4000) or create 2.88+ megabyte CP/M formats of our own design. I do not know if FD-based software exists to allow this under C128 CP/M.

### How do I use the strengths of some programs to get around the limitations of other programs?

I take it you are asking this because of the software gap in linking CP/M to CBM DOS (at least from the CP/M side of the equation). Well, we have a trump card in our sleeves in the

form of the MSDOS format types. These tend to be the lowest common denominator for information interchange in the entire microcomputer world. For example, if the JUGGLER utility lacks the ability to communicate with a particular brand of CP/M format type (a rare event indeed), chances are the system with the funny format type has some means to get

present an attractive alternative to some people.

**What if I don't have a C128 but need to put files on a C128 CP/M disk or some other type of CP/M disk?**

Hmmm... that's a tad outside the scope of this article, but I can see a situation arising from this where a C128 CP/M user

format).

**You've shown me the software, but where do I get it?**

All the C128 CP/M utilities I mentioned are available on the Internet FTP site [ccnga.uwaterloo.ca](http://ccnga.uwaterloo.ca) in directory [/pub/cbm/os/cpm](http://pub/cbm/os/cpm). I have also seen some of them in the GENie and Delphi information networks. The 22DISK140 utility is available on the Internet FTP site [oak.oakland.edu](http://oak.oakland.edu) in directory [/pub/msdos/diskutil](http://pub/msdos/diskutil).

### Final thoughts...

Software Software Software... This article is by no means the final word on what you can or can't port out of C128 CP/M. For example, Apple CP/M GCR disks are completely isolated from C128 CP/M, 22DISK140 or anything out there besides an Apple drive! However, some clever magician among you may set to master the Apple GCR format using a **commodore** GCR drive. If you do it, drop me a line; good CP/M software is usually a thing of beauty. As I hinted the last time we met, CP/M's strength lies in its software -- and in its users does its software lie.

Mike Gordillo is an expert in CP/M and Z80 programming as well as a devout **commodore** fanatic. He may be reached on the Internet as: [gq23v55d@umiami.ir.miami.edu](mailto:gq23v55d@umiami.ir.miami.edu) for general comments or questions.

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information from its disks onto MSDOS disks. Obviously, I can simply use the MSDOS format types as a bridge over troubled sectors and not worry anymore. The same holds true for CP/M to CBM DOS. If it becomes too inconvenient to save with C128LOAD and the built-in C128 mode monitor, I simply pop up TRANSFER 128 or MSDOSEM and let them put things into MSDOS disks for later retrieval by CBM DOS-able native mode programs such as **Big Blue Reader** or **Little Red Reader/Writer 128**. Mind you, this has its own share of inconveniences, but it does

might miss out on some software. If you have a machine that runs MSDOS, you can avoid that situation. There is a MSDOS to CP/M utility called 22DISK140 which supports 140 different CP/M MFM formats in its demo version and over 400 in the full version. The key thing here is it supports the **commodore** 1581 CP/M MFM format. Any files you put in there are going to be useful to a C128 CP/M user as long as he/she has a 1581 and the 28 MAY 87 Version of CP/M 3.0+ on the C128 (or a suitable patch which supports the **commodore** 1581 CP/M MFM

# Telecommunications: Your commodore & You



by Mike Eglestone

Remember one very important thing: The old 8-bit commodore can connect up with the big boys with very few problems. The commodore 64/128 computer is very flexible. It will still stack up to most anything on the market today when you are in the telecommunications mode. Modems are the great equalizer. The old 8-bit systems may not be fast, but they adapt quickly.

We were enjoying full color and three voice sound when IBM was mute and running on green screens. Nova Term and Desterm can connect you to any system with satisfactory emulation reproduction. Swift-Link will allow you to run at 9600 baud and higher. CMD puts out a compatible hard drive that's faster than greased lighting, and the RAMLink system with JiffyDos is an instant (zero time) loading device. Slap an REU into the package, and you are ready for anything!

Ok, off the soapbox and back to the task at hand. We were talking about term programs. At least that was the impression I got from reading what I wrote so far. Hopefully, the editor will allow me a little latitude from time to time and a personal opinion can creep into the technical garbage.

I'm the kind of guy who hates to read program documentation. I use it as a fallback position when absolutely necessary. I know what you're thinking. Here is this darn fool writing all this stuff for us to read, and he hates to read it himself! Well, you know the old saying, "Do as I say, not as I do." Sometimes it's

necessary. When the command system isn't blatantly obvious, even I must read a bit.

The next thing we will cover is the buffer. No, not the "shine the floor buffer," the text buffer. You have one in your term program. If you don't, find another program quickly. I will not tolerate a term program that doesn't have a text buffer of some sort. You are going to have to read the documentation on its operation, because they all work differently. The best I am able to do with this topic is tell you what it does. How it operates is up for grabs.

When your term program loaded, a section of computer memory was set aside to store the activity coming in over the modem connection. This is usually text material; however, graphic displays can be captured the same way. This feature is very valuable if you are reading through information files or bulletins you would like to print out for reference. You simply open the buffer, let the text file run to the end, then close the buffer. Later on, you can save the information to disk or print it out; both, if you prefer. I use the buffer save and print feature extensively if I happen to run across topics of interest in the bulletins. It allows me to run through all the topics very quickly, then go back and read them when I have closed the connection and have lots of time. Many systems put you on a time limit per call, and you can burn up an hour very quickly. Other systems charge by the minute, and you can run up quite a bill if you stop to read everything you find of interest. Your buffer becomes your best friend in short order.

Learn the buffer open, save, clear, and print commands before you attempt to use them online. Make sure you have enough disk space available to save the file, and learn exactly how much your buffer can store at one time. Buffer size varies between term programs. Remember, it's just a section of computer memory, and it does have size limits. Some term programs offer the "Save and Continue" feature. This automatically dumps the information to disk when the buffer is full, then it clears the buffer and continues again. I use this feature when I know for a fact I will end up exceeding the available memory space.

The next thing you will find is that there will be an area on a BBS that has programs available for transfer. These programs are often placed in directories and catalogs by what they do. Games, utilities, text and information, music, and all sorts of stuff are usually in there. In order to get these programs and files, you must "download" them. This opens up the area of transfer protocols and information exchange systems.

File transfers are disk drive to disk drive direct copy. If you are sending a program, you would be "uploading" a file. If you are receiving a program, you are "downloading" a file. Learn

the terms, please! Do not confuse buffer operations with file transfers as they are completely different. In a file transfer, the information is written directly to your disk drive. Again, you must have disk space available before you start this procedure.

The program that handles these copy operations is called a transfer protocol. Over the years, many different methods have been developed to accomplish this task. The most popular commodore protocol is called Punter. The others that are frequently used are X-Modem and Y-Modem. In addition, there are many customized transfer protocols in use by mainframe systems and networks. I don't plan to get very deep into this area.

The thing to keep in mind is, whichever one you pick, your protocol and the other computer's protocol *must match* (where have we heard that before...). You must establish (pick) your protocol prior to the transfer operation.

We'll continue next month with the "what" of file transfer.  
-- SMS MIKE (SysOp)  
DiamondBack BBS, Miami, FL

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# Reader Survey Results!

by Mia C. Crosthwaite & Cheryl McGrew



In the March 1994 issue of dieHard, we published a Reader Survey to learn more about our readers and their interests.

369 of you replied with lots of wonderful information about your computers, how you use them, and what you'd like more of. That was a 6% total return which is actually a little low for a reader survey, so we tend to think you are fairly happy with the status quo -- or you didn't want to rip up your dieHard to send in the page!! (Oops -- an over-sight on our part.)

**Computer** 78% of our readers own or use a **Commodore 64**, and 51% have a **Commodore 128**. The other computers fell in as follows:

SX 64	12%
VIC20	9%
IBM Clones	7%
plus/4	6%
Amiga	4%
C16	3%
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Mac	1%
Educator 64	1%



**Storage Devices** 78% have a 1541 disk drive, 54% have a 1571, and 41% have a 1581. 32% still have their datasets. Only 6% have a CMD hard drive (that's less than the number with PCs). For those of you who want the speed and ease of a PC or Mac but would like to stay with their **Commodore**, I strongly recommend you take a look at a CMD hard drive.

**Monitor** 66% use a color monitor, 47% use an RGBI monitor, 24% use a composite monitor, and only 12% use a mono monitor. 29% use televisions as a monitor. The split between 40 column and 80 column monitors was an exact 50/50 split.

**Printer** 58% use a 9 pin printer, 11% use a 24 pin printer, 5% use a plotter, and a mere 3% use a laser printer.

**RAM Expansion** 42% have a 17xx RAM Expansion Unit (REU). 17% use RAMLink, 10% use GeoRAM, and 7% use the RAMDrive.



**Expansion Boards** Only 11% of our readers use expansion boards of any type. 3% use an Aprosand.

**Modems and Telecommunicating** 32% of our readers have a modem and 23% use bulletin boards. 18% log on to Q-Link, 6% use GENIE, 4% use CompuServe, and 2% use Delphi. 11% log on to other boards.

**Input Devices** A full 92% of our readers have joysticks, the old **Commodore** stand-by. 72% have a mouse, 18% have paddles, 18% have a Koala Pad, and 18% have a light pen. Only 10% have a track ball.

**Music** Only 4% use or have MIDI and 1% have Euphony. 5% have SID Symphony and 2% have a second SID chip. It came as quite a surprise to us that so few of our readers are interested in music on their **Commodore**.

**Magazines** 43% of our readers subscribe to *LOADSTAR* with 41% reading *LOADSTAR 64* and 18% reading *LOADSTAR 128*. 37% read *CompuServe's Gazette*, 14% read *Twin Cities* and 2% read *Random Magazine*. When we were looking at the reader survey after the issue had been printed, we realized we had left out two magazines (*Commodore World* wasn't out yet), *Cee-64 Alive*, and *The Underground*.

**Uses** Not surprisingly, the most profound use of our readers' **Commodore** was for word processing. The second most common use was productivity, then databases, spreadsheets, telecommunications, programming, and games.

**Misc** 2% use JiffyDOS

**dieHard** It was no surprise to us, our Q&A column received the most favorite marks from our readers. Second was *REVIEW!*, then feature articles, *Archaic Computer*, *Basic BASIC*, and *PRG*.



**READY.**



# Cyberspace Cowboy

Delphi... it just keeps getting better and better. The **commodore** area, as of mid-April, now hosts three conferences every week. Monday's conferences are just for general chat and B.S. (breezy speculation), Wednesday's gatherings are going to be pretty much GEOS-specific, and our Friday evenings will continue in their established format of announced topics of discussion. The Monday and Wednesday conferences will begin at 8:00 PM EDT, while the Friday events will remain in their customary time slot of 9:00 PM EDT until everyone present decides to call it a night. The first half-hour of every conference will be devoted to new visitors to Delphi. During that time, we will attempt to answer any questions our new friends might have.

More Delphi news: Custom Forum #159 will hold an open conference every Saturday evening starting at 7:00 PM EDT. Both Publisher Jack Vander White and Editor Gaelyne Moranec will be available at that time. This forum is the place to discuss computer publishing on disk or paper using the **commodore 64**, **128**, or **plus/4**. To get to the Custom Forums menu, just select Groups and Clubs from the Delphi Main Menu. Custom Forum #159 is home base for Jack and Gaelyne's fine disk-based publication, CEE64 Alive!

What to do late at night... well, I enjoy cruising Delphi's Internet Gopher Menu, particularly The Grab Bag (with "New This Week" listings). Some of the more interesting things I have come across lately include:

○\_Five scripts of NBC's Almost 2001, a TV series about the communications revolution.

○\_Documents from and about the Information Infrastructure Task Force.

○\_A large (160 kilobyte) text file of computer folklore.

○\_A FAQ (Frequently Asked Questions) file on how to get airline tickets cheap.

And in the *I shoulda known department* is the U.S. House of Representatives Gopher. Every text file I tried to call out from the House Gopher for online reading ended in the same result -- a message stating, "Sorry, this file contains unprintable characters," and my being dropped back a level of menu layering.

I've been dealing with line noise lately. When line noise strikes, especially if it is intermittent (as it was in this case), the first and most natural inclination is to go into denial. I was positive it wasn't my equipment or wiring -- it just had to be overloading of the TelCo's switches during peak hours; or it was caused by construction/new telephone service installations in the neighborhood, interference from the navigation equipment on board military aircraft operating in the area, maybe that money-grubbing TelCo is still running some of the old analog switching devices in my exchange -- anything but my equipment. And those are all easy targets, aren't they? Besides, I reasoned, if it really was a problem here at Casa de Cowboy, I would have it all the time and not intermittently. Well, a few days ago, I was reading a message about the flakiness of cheap telephones. I looked at the el-cheapo (given away with a magazine subscription years ago) telephone plugged into my modem and decided it was worth a try. Since unplugging that little "convenience," all connects I have made have been clean and reliable. Live and learn....

**READY.**



# Archaic Computer

introduced by Brian L Crosthwaite

Welcome to the land of dreams. No one will deny that the nineteen eightys was the decade of the computer revolution.

In the Fifties, computers were rooms filled with circuits made up of vacuum tubes and massive components. A thoroughly modern age. Homes that cleaned themselves, electric curtains and those push button light switches. We had rock 'n roll, fast cars, roller skates, bobby socks, hoola hoops, and gum. But computers were nowhere in sight.

In came the Sixties, social unrest, sit-ins, and the space program. Gum gave way to acid, rock 'n roll fused with folk, people started to look around and the world was changing. Tie-dye and cut offs were born. Amongst other things, the military was now engaging in computers.

The Seventies came in, much to the dismay of many, as the fashionably inept widened everyone's collars and made polyester all the rage. The folk music turned to heavy metal, hoola hoops came back and hobbists of a new breed were born. The personal computer was

born. The Altair was one of, if not the first. Kits were available from ads found in *Popular Mechanics* and other electronics oriented reading material. The KIM was a little ditty from a new chip company called MOS Technologies. The Personal Electronic Transactor soon appeared as a former calculator and office machine company bought MOS. That company was Commodore.

Then the stuff hit the fan. The Eighties brought forth such a surge of computers from companies that either soon folded or became part of other companies. Magazines sprang up over night. Programming was the craze, if you owned a computer, you programmed. The new wave of music was called New Wave that went either mainstream or Punk Rock. Business, business, business. The fashions as well as the hair styles didn't improve much. The personal computer had not only come home, it was rather comfortable.

The Nineties brought hip hop to the scene. Tie-dyes came back, birkenstocks, grunge, and the choice. The choice was get a clone, Mac, Amiga or stay put. Those that stayed put were dieHards who loved their **commodores**. The

clones and the Macs went monopoly. They merged in the Power PC. The Amigaates stayed true as did the Commodorians.

The Two Thousands rang in a new era. Rock 'n roll was back, going barefoot was the craze and most of the Power PC users were gone forever. Those lucky enough to have been sitting in front of their trusty **commodores** when the Power PCs all blew up lived through one of the most devastating disasters to hit humankind. Unfortunately the Power PC's internal clock caused them all to explode on January 15th 2002 at 2pm and thirty-seven seconds.

With the Teens came even more interest in **commodore** home computing, as new generations of computer users listened to plasma beam oscillations, wearing their waffle-stompers, chewing gum and logging online to the newly revamped Q-Link. Wide open spaces were about the only good thing to come from the big disaster of '02, as it came to be called. Well, that and the software developers had to market more **commodore** titles to stay alive.

This is the legacy of the survivor -- welcome to the computer store of the past.

## Navy Seal Cosmi 1989



Navy Seal is an action packed arcade game where you find yourself in control of a figure standing at the edge of an open door of a C-130 aircraft. At the altitude of 3000 feet, an inflatable life raft is seen drifting down from the aircraft through cloud coverings growing oh-so-small. Next, a signal light along with a disembark signal is heard as you make your Navy Seal jump out the door with the push of the fire button. The object here is to steer your jumper toward the disappearing raft as it twists and turns through the passing clouds on its way to the ocean. The fire button must again be depressed to activate the opening of a parachute at 1000 feet, but no sooner to avoid revealing the Navy Seal to the enemy. The fire button is activated a third time at only 30 feet above the water to detach the chute or it will encompass the diver, drowning him and aborting the mission.

If all goes well and your figure lands within 50 yards of the supply raft, you will find your figure beneath a unique parallax scrolling three dimensional underwater graphic scenario. The Navy diver needs to swim a mile

toward shore, maintaining a constantly shifting 270 degree heading, while avoiding enemy divers, patrol boats and underwater nets. The diver is equipped with a 30-dart spear gun, a knife and even grenades that can be set and dropped while the swimmer moves away. The Navy Seal must remember that underwater combat may attract sharks; and disabled enemy combatants will surface, revealing his exact location, which will lead to an attack involving concussion grenades from above.

One complaint is the excruciating amount of time the diver must spend underwater before reaching his land objective. The Navy Seal must be constantly on guard against stinging jellyfish and large hostile sharks as well as never-ending attacking skin divers. The longer he stays submerged, the odds mount against him to complete the mission successfully.

If your diver makes it to the main dock, he must climb a ladder and eliminate guards with his 20-round silencer pistol. The Navy Seal must not be detected by return gunfire or the entire enemy base will be alerted to his covert actions. From the dock area, your figure

enters the depot area to search and destroy supply dumps, ammo bunkers and communication shacks with six sequentially placed timed charges while maintaining a 15-minute escape margin. All the while, the Navy Seal must try to avoid detection using only the automatic silencer pistol and a knife, even though he has access to a 150-round machine gun and grenades.

If the Navy Seal has done his job correctly, he can return to the entrance on the dock, dive into the water and swim away while watching for pursuers before the timed explosives detonate. After successful detonation of the base, a rescue recovery at sea of your Navy Seal will be dispatched.

This underwater obstacle course is only one of four different action scenarios all requiring insertion, infiltration, targeting and extracting. The other scenarios deal with marksmanship, onland obstacle course, and climbing as well as rappelling from a hovering helicopter. After completion of every phase, a rating is displayed; and upon finishing all four phases, a combined rating will determine future

reviewed by Noel Plank



# Collector's Corner



by Gil Parish

I can't complain about the title of this new regular monthly column, since I picked it. And it does accurately convey the general focus of my efforts here, which will be on some of the older, interesting items of hardware in the **commodore** world that users may happen to run across -- or want to seek out.

Still, the title seems to connote snooty aristocrats sitting around a Sotheby's auction, bidding on trendy antiques to be admired from under glass domes. That's pretty far from the "rummage through garage sales" environment in which the typical **commodore** enthusiast will acquire his or her treasures -- and any items an enthusiast brings home may well be drafted into immediate everyday use. But worse, the "collector" part of the title violates Parish's First Rule of Computer Collecting: NEVER, under any circumstances, identify yourself as a "Collector." If you're a "Collector," then these old computer things must be "collector's items" and worth big bucks, right? Wrong. Most computer hardware continues to LOSE dollar value as newer and newer techno-gadgets come along. We hobbyists are in this for the fun and specifically because the garage-sale prices of this stuff makes acquisitions very affordable. So don't give any seller an excuse to jack up his asking price: call yourself a "hobbyist," a "hacker," or even a "hairbrain," but NOT a "Collector."

Since I brought up my Rules of Computer Collecting, I might as well give you more, including the Second Rule: Try to get some "synergy" between your

computer collectibles. You are much better off, for instance, sticking with all **commodore** items and not trying to get one of every old home computer ever made (Atari, Timex/Sinclair, Texas Instruments, and so forth). To illustrate, suppose you have a **commodore** 128 and associated peripherals, and you find a VIC-20, by itself, at a garage sale. If you buy it, you'll find many of your 128 items, like disk drives, printers or printer interfaces, most modems, and even an old C2N Datasette you might happen to have gracing a closet, will work with your new arrival. Your software will not (as a whole) work with it, but at least you'll be familiar with the machine's BASIC 2.0 operating system from your 64-mode activities. Suppose on the other hand you find an Atari 130XE at a garage sale (that was probably one of the nicest Atari 8-bit models, by the way). Is there any hardware compatibility with your **commodore** stuff? Zilch. Software compatibility? Zero. Similar operating system? No way. By sticking with related items, you'll find collecting less frustrating and more fun.

Third Rule: Don't pay the seller extra just because *you* have put in a great deal of time and effort learning about classic computer equipment. That sounds silly to have to state, but bear it in mind. You are certainly under no obligation to explain to a seller exactly what an item is and why it might be valuable to a **commodore** enthusiast; if seller wishes to learn about computer collecting before naming his price, he is free to do so, without any help from you. And beware the seller who, before naming a (high) price for **commodore** items,

says something like, "Well, I need an IBM compatible, and I can't find software or any information about that old **commodore**, but since you're into **commodore** computing..." Nonsense. **commodore** enthusiasts live in the same world and time period as everyone else -- and most of us wouldn't mind if a Pentium-equipped PC happened to materialize on our desks. We still get mileage out of our **commodores** because we have learned where to go for software and support. If the equipment is not worth anything to seller (because seller does not care to invest the time and effort to learn to make it useful), then that's how seller ought to price it. Even if buyer has the skills or knowledge to "spin straw into gold," buyer should be expected to pay only for the raw material, not the price of the sparkling finished product.

Fourth Rule: Despite the fact that many sellers state something like, "I paid \$200, willing to sacrifice for \$100," it is almost completely irrelevant what the original price of the equipment might have been, especially when several years have passed. Such data might be an interesting footnote to a purchase, but it is no guide at all to present worth. As an example, I have purchased CP/M computers, which were heavy-duty, state-of-the-art business systems a decade ago, and paid about 1% of original price. So a high price *then* is not an indicator of a high value *now*. By the same token, it might be that a rare but fairly inexpensive item from a decade ago could command a (relatively) high price now, simply because of the rarity.

Fifth Rule: Keep your eyes open and move fast. You may uncover old equipment in lots of venues -- classified ads in the paper, thrift stores, garage sales, liquidations by other hobbyists at **commodore** user group meetings, notices posted on local BBSs and other on-line services of the "information superhighway," and so forth. Get into the habit of routinely scanning such sources. And if you see what you want at an amazing price, jump on it! I don't just mean (for instance) posting a message on a BBS that you'll take a particular advertised item; sellers (especially on BBSs) seem to have a "morally-casual" attitude about verbally accepting one offer but then actually selling to someone else who subsequently offers more, or who might get over to their home first. Be clear about what you're buying, but remember you aren't the only hobbyist out there, and close the deal before the buyer has a chance to listen to other siren voices.

We'll get into specific **commodore** hardware of interest to hobbyists next time. In the meantime -- don't pay attention to people who think you ought to get into Stamp Collecting or other "normal" hobbies. And Remember the Rules!

READY.







**Q:** I have written a program on the checkbook. One of the problems I have never been able to resolve has to do with the printouts. On purchased programs the decimal points can be lined up in a column. Also the program will print the zeros after the decimal. On other computers, they have the PRINT USING statement. How is this problem handled on the C64 using BASIC? Henry Buxbaum of Levittown, Pennsylvania.

**A:** Mel Day of Violet, Louisiana, wrote us with just the routine you need! Check it out in INPUT;READER\$ on page 6.

Now, to align decimals:  
 1000 PRINTSPC(X  
 -(LEN(TTS)+3));TTS  
 X is the column number where you want the ones row in the pennies to be, and TTS is the number you want printed (See page 6).

**Q:** My problem/question lies in the emulator cartridge and Epson FX80 card. I do not know if these are the same or two separate items and where to purchase them. I've spoken with a couple of computer buddies and they have never heard of them, either. Could you help me find these items?

Again with assumption, I think this item would probably plug into the (font) cartridge port located on the top right front of the printer. I am using Xetec's Super Graphics Interface. Jerry Hadley of Oxford, Alabama.

**A:** The cartridge is listed in the

back of the HP Deskjet 500 printer manual. The item number is 22707F. The HP direct phone numbers are: 1-800-538-8787 (U.S.) or 1-800-387-3417 (Canada).

**Q:** In the November 1990 issue of RUN Magazine, there was an advertisement placed by Rio Computers of Las Vegas for Handyscanner 64, which at that time sold for \$299.95. Although I have tried to reach Rio Computers by telephone and by fax, I have been unable to make contact. Probably in the 3+ years since placing the ad, Rio has moved or gone out of business. In the meantime, I have not seen ads elsewhere for Handyscanner 64, although it seemed to have a lot going for it at the time. If still available somewhere, I would be interested in getting one. Artemas P. Richardson of Fremont, New Hampshire.

**A:** It is still available from Rio Computers for \$299.95 plus \$6.00 shipping/handling. You can order by writing Rio Computers at 572 Tam O'Shanter, Las Vegas, NV 89109, telephone (702) 369-2633 (as listed in the Jul/Aug Rarities special column). Please include your money order or cashier's check when you place your order. An added note: Rio's telephone has a FAX hook-up which automatically answers after approx. 4 rings.

**Q:** I am a story writer/author-wannabe and, as such, subscribe to the definitive *Writer's Magazine*. In it were

ads for three programs I would dearly like to have to further my career. They are: **Story Line**, **WritePro**, and **Plots Unlimited**. Unfortunately, all of them require an IBM or compatible. I don't have one, nor do I expect to get one. I have, and am satisfied so far with, a C64 and a Citizen GSX-230/24 pin printer. However, I still want these programs or whatever is comparable in C64 format. They are all a windows venue and deal with composition, plot, characterization, etc., in a kind of "fill in the blanks" style.

The best program I have (in fact, the only program I have) is **Word Writer 6**. As nice as it is, it doesn't come close to what I need (even as far as a word processor program is concerned... though what might there be that is better??). So! Are there programs that will fit the bill? If so, what do I need, as a C64 operator, to run them?

I hope to hear from some wonderful soul who will help me out of the electronic "Sargasso Sea" that I find myself in. Gary Albach of Angola, New York.

**A:** The closest programs of this kind that I've seen are the madlib spin-offs found in the Public Domain. **LOADSTAR** has a program called **Bookmeister V3** which is a text presentation package. It lets you put a whole book or lots of short stories on disk, compacting them up to 65%. Neither of these allow you to choose plots and characters to form a story.

**The Write Stuff** is one

of the most powerful word processors ever written. The manual is great and has a very thorough index. For more info, write to: Busy Bee Software, P.O.Box 2959, Lompoc, CA, 93438.

Any readers with ideas about writing programs?

**Q:** I have a C64 with a 1541 disk drive. At present, I'm having a problem with my 1541 disk drive. It continually runs and loads as soon as I turn it on. I'm trying to find a company that still sells the 1541, remanufactured or new. If you know of a company that does, please let me know.

Presently, I am storing some data on cassette disk, a slow process. Linda D. Morris of King William, Virginia.

**A:** Tycom and Sodak are just a couple of businesses that advertise in *dieHard* (see ads in this issue) which specialize in fixing and refurbishing **Commodore** equipment.

**Q:** I just started receiving *dieHard*. I am very happy with it and am glad more people are jumping in to support our favorite computer. I have a 128c, 1571 disk drive, and a 1541-II drive. I have a Sears SR2000 printer I use for most of my printing. I have a Seikosha SP-2000 printer I use to print labels. All of a sudden, none of my programs can access the Seikosha. I even tried the **Printshop** I first started with -- no luck. I have an old C64 and 1541 drive I set up for the grandkids to play with once in awhile. I plugged the Seikosha



into that and it prints perfectly. It used to work with my system. I have a Super Gold interface I use with the Sears. The Seikosha just plugs in direct. I used the same wires. Larry Wilke of Palmyra, Wisconsin.

**A:** You might try checking the jack that the Seikosha cable plugs into to see if it allows a good, firm connection. It if proves to be okay, unplug everything from the C128 except the monitor and power. Then plug in the Seikosha and power up. In direct mode, enter: OPEN 4,4:PRINT#4,"TEST TEST" and press <RETURN>. If the printer fails to work, power down and check the jacks on both ends of the printer cable. Try a different cable to see if you can get a better connection. If it does work, add your disk drive onto the setup, power up again, and run the test. Repeat this with the next disk drive, etc., until your printer fails the test. If you have both printers hooked up or powered up at the same time, something may have changed, such as a component that would have failed eventually. Be sure the computer itself is not malfunctioning. It may be as simple as a bad connection, or it may be time for a trip to the repair shop.

**Q:** I have a C64, **Easy Script** (which I love) word processing software by Commodore, and the following printer interfaces: 1) Card?A - Universal Centronics Parallel by Cardco. 2) Super Graphix by Xetec. 3) Card?+G by Cardco.

4) HR-15 Interface by Brother. I want to purchase an inkjet or a laser printer, hoping to spend \$600 or less.

I know nothing about dip switches, maintenance or programming. My main objective is -- PRINTING! -- as needed. My output is 70% manuscript drafting and 30% final manuscripts, text only.

What type printer (inkjet or laser) is easiest to get up and running, the most durable and long lasting, and/or cheaper to utilize? Lastly, are there inkjet or laser printers that are compatible with the C64, **Easy Script**, and my interfaces?

I'm frustrated with, and sick of, dot matrix printers and letter quality printers (like the Brother HR-15). I had constant printer interruptions because of tractor jams, printer malfunctions, dip switch problems. Gary P. Doughty of Williamstown, New Jersey.

**A:** Sounds like what you need is an HP Deskjet 500 with an Epson Emulation cartridge for easy setup. Just select Epson on the Super Graphix interface (dip switches A, B, and C off). Dip switches 1 and 2 up on the right bank of switches on the HP. The HP has an auto load paper tray, it is quiet, and it sets the paper down so it will dry before you handle it. As far as matinance goes, the manual is very clear since there is little.

**Q:** Can you tell me who would sell the ribbons for my printer (VIC-1525)? Henry LaBrocca of Toms River, New Jersey.

**Q:** Please help me! I need printer ribbons for a Star

NL-10. Where, who, and how can I get my hands on one or two of them? Carl E. Rapp, APO AE 09227.

**A:** V-Tech, Inc., 2223 Rebecca Drive, Hatfield, Pennsylvania, 19440, telephone (215) 822-2989, fax (215) 822-6394, carries all kinds of printer ribbons and they know what a VIC is!!!!

**Q:** I guess I must be pretty dumb or stupid. I joined *dieHard* and my first disk came. I tried directory for a list of programs and got nothing. I tried load"\*",8 and nothing happened. I loaded a different software program I had bought and got the directory. I tried load"colortwins128",8 and then run, and all I got was ready.

Is there any way I can get a list of my directory without using another software package? Is there any way I can get to see my files? I am a novice at this and am quite upset. I can't understand why instructions can't be included for us dummies so we can learn the process of working with computers. Frances Soucy of Somersworth, New Hampshire.

**A:** Learned knoweldge has little to do with intelegence. I'm sure you're not stupid!

The first program on the older *Spinners* was usually after headings that have no file. That's why LOAD"\*",8 didn't work. To see the directory, type: LOAD"\$",8 then press the <RETURN> key. After the drive stops, type: LIST <RETURN>. Press <CTRL> on C64 or VIC20; <C=> on C128, C16 or Plus/4; or left

arrow on PET or CBM keyboard to slow the listing. To get a printout, type:

```
OPEN4,4:CMD4:LIST
<RETURN>
```

After the cursor returns, type:

```
PRINT#4:CLOSE4
<RETURN>
```

To run a program:

```
LOAD "filename",8
<RETURN>
```

where filename is the name of the PRG you want to load. If you are using a C64, in most cases, only PRGs found under the C64 header will run on your machine, or those found under VIC20 for a VIC20, etc.

```
RUN <RETURN>
```

will run the program, and

```
LIST <RETURN>
```

will allow you to see the PRG if it is BASIC.

The newer *Spinners* all have instruction sheets with a complete listing of the directories along with notes that relate to the files. We will soon have a full operating system for those who wish to only run the PRG and read text files. All PRG will remain accessible for those who wish to list, learn, and alter.

**READY.**



**#1\* May '92 Hardcore \$3.50**

This is *dieHard*'s premier issue printed out of Brian L Crosthwaite's basement on an MPS 1270 inkjet printer! Highlights: SAVE@ bug, Lots of Pokes and Peeks, Program, and the editorial concept behind *dieHard*.

**#2\* Jun '92 Writers, Programmers, Countrymen \$3.50**

Highlights: word processing tips, GEOS tips, review of Visible Solar System, Programs, and Pokes and Peeks.

**#3\* Jul/Aug '92 Oops! \$4.50**

Highlights: review of The Final Cartridge III, review of Turtle Graphics II, Puter Mirth, PAPSAW, and Programs.

**#4\* Oct '92 Pumpkin \$3.50**

Highlights: review of LOADSTAR, PAPSAW, review of Pole Position, Q&As, and Programs.

**#5\* Nov/Dec '92 geoIssue \$3.50**

Highlights: Commodore Trivia, geoTips, geoTutorials, review of GateWay, review of DESKTOP 1.5, Q&A, and the DOS wedge.

**#6\* Jan '93 History in 3001 \$2.95**

Highlights: datassette backup, Programs, User Groups, PAPSAW, review of Hearsay 1000, Q&A, and Commodore Trivia.

**#7\* Feb '93 Computer Cipher \$2.95**

Highlights: geoTips, review of The Duel: Test Drive II, review of Super Expander 64, Q&A, Programs, and PAPSAW.

**#8\* Mar '93 Script \$2.95**

Highlights: review of IconTroller, geoTips, PAPSAW, review of Top 20 Solid Gold, Q&A, and Programs.

**#9\* Apr '93 The Last Flyer \$2.95**

Highlights: review of *Mojo Mag*, geoTips, PAPSAW, review of Kickman, Q&A, and Programs.

*\*These issues were printed with a commodore MPS 1270 inkjet and printed by photocopy machines, the original Flyer.*

**#10 May '93 The Adventures of Laser Mag \$2.95**

This is the first laser printed issue printed on magazine paper. Highlights: geoTips, review of Commodore FORMAT, Basic BASIC, PAPSAW, review of the Commodore 1581 disk drive, Q&A.

**#11 Jun/Jul '93 The Connection! \$2.95**

Highlights: review of The Simpsons Arcade Game, geoTips, Basic BASIC, PAPSAW, review of Clowns, and Q&A.

**#12 Aug '93 Special PD Issue \$2.95**

Highlights: Tips, review of Gary Label Maker V4, review of Shoot 'Em Up Construction Kit, Q&A, and Programs.

**#13 Sep '93 Plug In! \$2.95**

Highlights: Qlink news, Basic BASIC, hooking up modems, review of JiffyDOS, geoTips, Cyberspace Cowboy, review of Partner 64, Q&A, and Programs.

**#14 Oct '93 The Horror Issue \$2.95**

Highlights: MIDI, review of KeyDOS, review of Wings of Circe, Basic BASIC, Cyberspace Cowboy, review of Partner 128, Q&A, and Programs.

**#15 Nov '93 Gobble, Gobble! \$2.95**

Highlights: CAD for the C64, Basic BASIC, MIDI, Cyberspace Cowboy, and news.

**#16 Dec '93 Merry Christmas!! \$2.95**

Highlights: A Computerist's Christmas, REVIEW!, A Christmas Card in PRG, Telecommunications -- Your Commodore And You, of pink novels, software turntables and forgotten logitheques.

**#17 Jan/Feb '94 Killer GEOS Issue! \$3.95**

Highlights: INPUT;READER\$, Rarities, geoTips, GEOS Meets Laser, Putting the Impossible on Paper, Trader's Corner, Archaic Computer.

**#18 Mar '94 Control Program for Microprocessors! \$3.95**

Highlights: INPUT;READER\$, Rarities, CPM, Cyberspace Cowboy, Ms. Knombers, Trader's Corner, Archaic Computer, PRG.

**#19 Apr '94 Special Amigaless Issue!!! \$3.95**

Highlights: Have You Seen LOADSTAR Lately!?, Rarities, Basic BASIC, Cyberspace Cowboy, Q&A, Trader's Corner, Archaic Computer, PRG.

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Highlights: C128 CPM, 8-Bit 4-Pass Color Tutorial, 8-Bit The Low Cost Computing Alternative, PRG.

# dieHard

the Flyer for commodore 8biters

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# DOS & Don'ts



by James Gregory Weiler

*DOS & Don'ts* is reprinted with permission from *LOADSTAR*. *The Complete DOS and Don'ts* is available on 1541 disk for the C64/C128 from Softdisk, P.O.B.ox 30008, Shreveport, LA, 71130 for \$9.95, plus \$4.50 shipping for 2nd day delivery.

Now *DOS & Don'ts* covers with depth and clarity the organization of data on your 1541 floppy disk. There is a lot of information here, so get out your emetics and prepare for an overDOSe. You may want to try printing each article to help follow along because the information is so complex.

Part A: What's where.

Put simply, a **commodore** 1541 stores data in 35 concentric circles on your disk. These circles are called "tracks." They are numbered from one (the track nearest the outside rim of the disk) to 35 (the track nearest the hub).

Each track is split up into a number of smaller parcels called "blocks." The number of blocks in any given track is related to the physical size of the track. Tracks near the outside edge of the disk are physically longer than those near the hub, so they contain more blocks. Each block holds 256 bytes of data. Some folks call blocks "sectors."

Tracks 1 through 17 each contain 21 blocks numbered 0 through 20.

Tracks 18 through 24 each contain 19 blocks numbered 0 through 18.

Tracks 25 through 30 each contain 18 blocks numbered 0 through 17.

Tracks 31 through 35 each contain 17 blocks numbered 0 through 16.

Track 18 is a special track known as the directory track. The directory track can be thought of as a disk's index. It contains references to every block and file on the disk. Whenever you tell DOS to do anything to a file, the directory track is the first place DOS looks. The directory track is divided into two parts: the BLOCK AVAILABILITY MAP and the DIRECTORY.

The Block Availability Map (BAM for short) is exactly what its name implies -- a map telling DOS which blocks on the disk have files in them and which are available for use by new files. Every time you SAVE, SCRATCH, or OPEN and WRITE a file, DOS keeps track of what parts of the disk it changes by updating the BAM. The BAM is kept on track 18, block 0.

The rest of the directory track is made up of the directory itself. The directory is the actual index to the rest of the data on a disk. It contains the names of all the files on the disk and the track and block numbers where DOS can find each file. The directory resides on track 18, blocks 1 through 18.

Map 1 is a chart of all the blocks on a disk and what type of information is stored in them. Except for track 18, the entire disk is used to store files.

Map 1: What's where on a 1541 disk.

Each vertical line of letters represents one track. Each letter represents one block, starting with block zero at the top of the map.

**READY.**

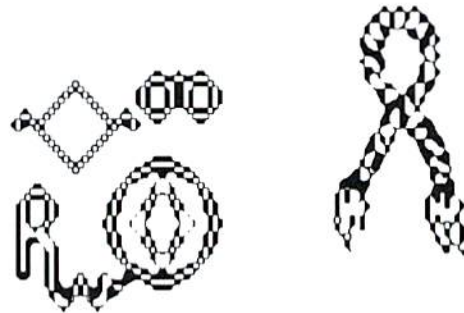
Key: B = BAM = block availability map  
 D = directory  
 F = file storage areas

tracks---> 11111111112222222222333333  
 12345678901234567890123456789012345

```

00 FFFFFFFFFFFFFFFFFBFFFFFFFFFFFFFFFF
01 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
02 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
03 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
04 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
05 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
06 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
07 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
08 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
09 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
10 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
11 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
12 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
13 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
14 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
15 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
16 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFFF
17 FFFFFFFFFFFFFFFFFDFFFFFFFFFFFFFFF
18 FFFFFFFFFFFFFFFFFDFFFFFFF
19 FFFFFFFFFFFFFFFF
20 FFFFFFFFFFFFFFFF
    
```

12345678911111111112222222222333333  
 tracks---> 01234567890123456789012345



# PRG



Welcome to PRG. When you enter a program, be sure to be aware of text within brackets, [ and ]. These denote a key, key combination or a series of key presses. [HOME] means to press the <HOME> key. [Cyn] means to press <Control> + <4>, although it will sometimes be written [ctrl 4]. [3 space] means to press <space> three times. You can be sure if it is inside quotes that it is one of these little ditties.

On the C64, 64C, SX64 or Educator 64, use the **TipeRite 2.0** program found in the very last listing. Do *not* enter the :REM no. at the end of the line. This is the checksum; and if you include it, it will change the checksum the computer prints to the screen.

At the end of each PRG listing you will find ".....end of line." Do *not* enter this either. It is there to tell you that what follows is a different program.

So, you've written that all-world-changing program and want to share it with the *dieHard* Universe! Write for Writer's Guidelines: *dieHard*, Writer's Guidelines, P.O.Box 392, Boise, Idaho, 83701-0392.

## Texas Stars (C64, plus/4, C16)

by Rick Hedrick

**Texas Stars** is one of many programs from Rick Hedrick's **Mathograph** collection found on this month's *Spinner*. This PRG make nifty-kinno circle of stars with several overlaid stars in the center. Re-RUN the PRG to save as a PS page or snapshot it with your favorite creen saver utility. If you have a C128, C16, or plus/4, a screen saved with this program can be loaded into the HIRES screen with:

```
GRAPHIC1,1:LOAD"filename",8,1.
```

Filename is the name you saved the screen under.

## Texas Stars C64

```
10 REM TEXAS STARS BY RICK
   HEDRICK:REM183
20 REM COPYRIGHT 1994 LYNNCARTHY
   INDUSTRIES, INC. ALL RIGHTS
   RESERVED.:REM14
30 DIMCX(51),CY(51),DX(51)
   ,DY(51):REM111
40 DEF FN AL(X)=-ATN(X/SQR(1-X*X))
   +[shift ^]/2:REM111
50 PQ=[shift ^]/180:GG=72*PQ
   :GH=GG+GG:GI=GH+GG:GJ=GI+GG
   :PP=2*[shift ^]:REM171
60 PRINTCHR$(147):AZ$=""
   :POKE53280,14:PRINT"* DRAW TEXAS
   RING OF STARS ENSEMBL":REM135
70 PRINT"* FOR SPEED, COMPILE
   P-PSEUDO-":PRINT"CODE AT MEMORY
   START 16500":REM40
80 PRINT">SAVE ? PRIOR SCREEN IN
   MEMORY ?< Y/N=":AZ$=""
   :INPUTAZ$:REM220
90 IF AZ$="Y"THEN780:REM10
100 PRINT:PRINT"PRESS RETURN FOR
   STARS!":AZ$="":REM177
110 PRINT:PRINT"(SCREEN REDDENS &
   WAITS WHEN DONE)":INPUTAZ$:REM166
120 REM OPEN BIT MAP AT 8192:REM183
```

```
130 BA=2*4096:POKE53272
   ,PEEK(53272)OR8:REM196
140 POKE53265,PEEK(53265)OR32:REM216
150 FORI=BATOBA+7999:POKEI,0
   :NEXTI:REM100
160 FORI=1024TO2023:POKEI,15
   :NEXTI:REM147
170 FOR I=0TO360STEP(360/13):REM20
180 K=I*PQ:X1=85*COS(K)+160
   :Y1=85*SIN(K)+100:REM149
190 X2=95*COS(K)+160
   :Y2=95*SIN(K)+100:REM254
200 GOSUB570:REM100
210 NEXTI:188
220 X1=160:Y1=100:X2=160
   :Y2=170:GOSUB570:REM239
230 X1=160:Y1=100:X2=160
   :Y2=140:GOSUB570:REM151
240 X1=160:Y1=100:X2=160
   :Y2=130:GOSUB570:REM106
250 X1=160:Y1=100:X2=160
   :Y2=120:GOSUB570:REM78
260 X1=160:Y1=100:X2=160
   :Y2=110:GOSUB570:REM34
270 POKE53280,2:REM173
280 GOTO280:REM203
290 END:REM163
300 REM SET A POINT:REM27
310 Y=200-Y:REM208
320 IFX<0THENRETURN:REM158
330 IFX>319THENRETURN:REM241
340 IFY<0THENRETURN:REM172
350 IFY>199THENRETURN:REM195
360 CH=INT(X/8):RO=INT(Y/8)
   :LN=YAND7:REM70
370 BY=8192+RO*320+8*CH+LN:REM226
380 BI=7-(XAND7):REM35
390 POKEBY,PEEK(BY)OR(2^BI):REM235
400 RETURN:REMO
410 END:REM24
420 REM DRAW A LINE:REM166
430 IFABS(X2-X1)<ABS(Y2-Y1)
   THEN500:REM234
440 SP=(Y2-Y1)/ABS(X2-X1+1.E-20)
   :YK=Y1:REM35
450 FORXR=X1TOX2STEPSPGN(X2-X1):REM139
460 YK=YK+SP:Y=INT(YK+.5):X=XR
   :GOSUB300:REM52
470 NEXTXR:REM171
480 RETURN:REM80
490 END:REM104
500 REM A GOTO LINE:REM160
510 SP=(X2-X1)/ABS(Y2-Y1+1.E-20)
   :XK=X1:REM176
520 FORXR=Y1TOY2STEPSPGN(Y2-Y1):REM110
530 XK=XK+SP:X=INT(XK+.5)
   :Y=XR:GOSUB300:REM71
540 NEXTXR:REM241
550 RETURN:REM154
560 END:REM178
570 REM DRAW STARS:REM56
580 XA=X1:YA=Y1:XB=X2:YB=Y2
   :X=XA:Y=YA:GOSUB300:REM2
590 RR=SQR((XA-XB)^2+(YA-YB)^2)
   :IFRR=0THENRR=1.E-6:REM32
600 ML=(XB-XA)/RR:IF(ML*ML)=1
   THENML=.999999:REM189
610 TH=FNAL(ML):IFYB<YA
   THENTH=PP-TH:REM103
620 W(1)=TH+GG:W(2)=TH+GH
   :W(3)=TH+GI:W(4)=TH+GJ:REM114
630 FOR Z=1TO4:REM245
640 IFW(Z)=PPTHENW(Z)=0:REM167
650 IFW(Z)>PPTHENW(Z)=W(Z)-PP:REM69
660 NEXTZ:REM90
670 PX(2)=RR*COS(W(1))+XA
   :PY(2)=RR*SIN(W(1))+YA
   :PX(1)=XB:PY(1)=YB:REM51
680 PX(3)=RR*COS(W(2))+XA
   :PY(3)=RR*SIN(W(2))+YA:REM28
690 PX(4)=RR*COS(W(3))+XA
   :PY(4)=RR*SIN(W(3))+YA:REM197
700 PX(5)=RR*COS(W(4))+XA
   :PY(5)=RR*SIN(W(4))+YA:REM135
710 X1=PX(1):Y1=PY(1):X2=PX(3)
   :Y2=PY(3):GOSUB420:REM201
720 X1=PX(1):Y1=PY(1):X2=PX(4)
   :Y2=PY(4):GOSUB420:REM26
```

```

730 X1=PX(2):Y1=PY(2):X2=PX(4)
      :Y2=PY(4):GOSUB420:REM7
740 X1=PX(2):Y1=PY(2):X2=PX(5)
      :Y2=PY(5):GOSUB420:REM88
750 X1=PX(3):Y1=PY(3):X2=PX(5)
      :Y2=PY(5):GOSUB420:REM69
760 RETURN:REM105
770 END:REM129
780 PRINT"SAVE MEMORY
      8192-16192":PRINT:REM49
790 PRINT"(SAVES AS A PRINTSHOP
      PANEL)":PRINT"(CAN ALSO USE IN
      FGM Q-LINK)":REM202
800 PRINT"[19 -]":REM151
810 A=8192:REM STARTING
      ADDRESS:REM31
820 B=16192:REM ENDING
      ADDRESS:REM200
830 A1=INT(A/256):A2=A-256*A1:REM66
840 PRINT"LESS THAN 16 CHARACTER
      FILENAME:"E$="":INPUT E$:REM127
850 PRINT"(SAVES WITH REPLACE OF
      ORIGINAL NAME)":REM45
860 OPEN15,8,15,"S0:"+E$:REM178
870 OPEN1,8,1,"0:"+E$+",P,W":REM203
880 PRINT#1,CHR$(A2)CHR$(A1);:REM162
890 FORJ=ATOB
      :PRINT#1,CHR$(PEEK(J));:REM255
900 NEXT:REM6
910 CLOSE1:VERIFYS$,8,1:REM194
920 INPUT#15,A$,B$
      :PRINTA$,B$:CLOSE15:REM63
930 END:REM38

```

....end of line.

## Texas Stars C16 & plus4

Type in the previous listing with the following changes: Delete lines 140, 150, and 160. Add these lines:

```

60 PRINTCHR$(147):AZ$=""
      :POKE65305,14:PRINT"* DRAW TEXAS
      RING OF STARS ENSEMBL"
130 BA=2*4096:COLOR1,2:COLOR0,1
      :GRAPHIC1,1
270 POKE65305,2

```

....end of line.

## Mini-Menu (ALL)

by Mel Day

Need a short Menu program? Place 22 file names in place of P1, P2, etc. Then RUN the program and select MINI-MENU from the listing and hit <RETURN>. This will update Mini-Menu with your new file names and rerun itself. To load a program simply place the cursor on the name and hit <RETURN>. (Checksums are for when entered on C64 only.)

```

10 REM COPYRIGHT 1994 LYNNCARTHY
      INDUSTRIES, INC. ALL RIGHTS
      RESERVED.:REM16
20 REM MINI-MENU V1.2 - BY MEL
      DAY:REM100
30 REM MULTI COMPUTER VERSION
      1.2:REM215
40 COMPUTER=PEEK(772)+256
      *PEEK(773):REM182
49 REM 16+4:REM229
50 IFCO=35158THENSC=65301
      :BC=65305:CC=1339:CL=19:KC=0239
      :KA=1319:REM40
59 REMVIC20:REM240
60 IFCO=50556THENSC=36879
      :BC=36879:CC=0646:CL=19
      :KC=0198:KA=0631:REM223
69 REM C64:REM185
70 IFCO=42364THENSC=53280
      :BC=53281:CC=0646:CL=19
      :KC=0198:KA=0631:REM74
79 REM C128:REM204
80 IFCO=17165THENSC=53280
      :BC=53281:CC=0241:CL=21
      :KC=0208:KA=0842:REM88
89 REM 2001:REM45
90 IFCO=08224THENSC=00000
      :BC=00000:CC=0000:CL=19
      :KC=0198:KA=0631:REM174
100 DIMI$(23):PRINT"[CLR]"
      :FORA=1TO23:READI$(A):NEXT
      :POKESC,0:POKEBC,0:POKECC,1:REM236
110 PRINT"[CLR]":FORA=1TO23
      :PRINTI$(A):NEXT:PRINT"[HOME]"
      :POKECL,65:INPUTNF$:REM86
120 IFNF$="MINI-MENUV1.2"THEN
      GOSUB200:GOTO110:REM134
130 POKEKC,4:PRINT"[CLR]"
      [2 crsr down]LOAD"CHR$(34)NF$;
      :PRINTCHR$(34)",8[HOME]";:REM49
140 POKEKA+0,13:POKEKA+1,82
      :POKEKA+2,117:POKEKA+3,13
      :END:REM210
150 DATA "MINI-MENUV1.2","P1","P2"
      ,"P3","P4","P5":REM90
160 DATA "P6","P7","P8","P9"
      ,"P10":REM7
170 DATA "P11","P12","P13"
      ,"P14","P15":REM132
180 DATA "P16","P17","P18"
      ,"P19","P20":REM27
190 DATA "P21","P22":REM135
200 A$="MINI-MENUV1.2"
      :OPEN15,8,15,"S0:"+A$:CLOSE15
      :SAVEA$,8:VERIFYS$,8:REM244
210 RETURN:REM69

```

....end of line.

## dh Directory to Menu Program (C64)

by James T. Jones

The dieHard Directory to Menu Program converts the directory into a menu, so

that by pressing a number corresponding to the file, the program can be directly loaded.

Type the listing and SAVE it to disk as **DH DIR TO MENU**. When the program is RUN, instructions for displaying the menu corresponding to the directory are given on the screen. Disk drives having device numbers from 8 through 15 are supported.

BASIC programs beginning at 2048, or for ML files having a BASIC loader will LOAD at 2048. Otherwise the starting address is computed and a SYS AD takes place after LOADING.

Keep in mind that SEQ,USR,DEL,REL, and text files saved as PRG files will not LOAD and may lock up the computer.

```

10 REM DIRECTORY TO MENU PROGRAM -
      JAMES T. JONES:REM102
12 REM COPYRIGHT 1994 LYNNCARTHY
      INDUSTRIES, INC. ALL RIGHTS
      RESERVED.:REM22
20 DIM E$(145),NF$(145):RS$="" :REM51
30 PRINT CHR$(147):INPUT "SPECIFY DISK
      DRIVE DEVICE NUMBER";DV$
      :DV=VAL(DV$):REM194
40 IF DV=0 OR DV<8 OR DV>15
      THEN PRINT"TRY AGAIN!!!"
      :FORX=1TO2500:NEXT:GOTO30:REM174
50 SS$="" :SP$=CHR$(32):FORX=1TO38
      :SS$=SS$+SP$:NEXT:FORX=1TO3
      :RS$=RS$+SP$:NEXT:REM226
60 GOSUB620 :CU$=CHR$(145)
      :CS$=CHR$(147):REM DISK DRIVE
      CHECK:REM162
70 DE=0:BD=0:B$="" :HM$=CHR$(19)
      :CD$=CHR$(17):REM DE IS (D)IRECTORY
      (E)NTRY NO.:REM146
80 PRINT CS$SP$SP$"PROGRAM TO CHANGE
      DIRECTORY TO MENU":REM102
90 PRINT CD$SP$SP$"PRESS <RETURN> TO
      BEGIN LISTING":REM63
100 PRINT"DIRECTORY.":REM121
110 PRINT CD$SP$SP$"PRESS <SPACE> TO
      PAUSE LISTING. IF":REM242
120 PRINT"YOU SEE A FILE YOU WANT TO
      LOAD, PAUSE":REM69
130 PRINT"LISTING. YOU WILL BE GIVEN
      A CHOICE":REM153
140 PRINT"OF EITHER LOADING A FILE, BY
      TYPING 'L'":REM223
150 PRINT"AND PRESSING <RETURN>, OR
      CONTIN-":REM94
160 PRINT"UING BY TYPING 'C', THEN
      PRESSING":REM11
170 PRINT"<RETURN>." :PRINT:REM219
180 C$="" :GET C$:IF C$<>CHR$(13)
      THEN180:REM165
190 GOSUB320:REM125
200 PRINT CD$SP$SP$"PRESS L TO LOAD A
      PROGRAM":REM180
210 PRINT "OR PRESS <RETURN> TO
      DISPLAY DIREC-":REM21

```

```

220 PRINT"TORY AGAIN (OR ANOTHER
    DIRECTORY) OR":REM61
230 PRINT"PRESS _ TO EXIT TO BASIC.
    [2 space]FOR AN-":REM101
240 PRINT"OTHER DIRECTORY, BE SURE
    TO REPLACE":REM199
250 PRINT"DISKETTE.":PRINT:REM139
260 C$="":GET C$:IF C$=""
    THEN260:REM50
270 IF C$="L" OR C$="[shift L]"
    THEN510:REM135
280 IF C$=CHR$(13) THEN CLOSE15
    :OPEN 15,DV,15,"I":CLOSE15
    :GOTO60:REM201
290 IF C$="[arrow back]"
    THEN END:REM79
300 GOTO260:REM213
310 END:REM183
320 Q$=CHR$(34)
    :OPEN 2,DV,0,"$:*":REM180
330 GET#2,A$:A$=- (ST<>0) -2*(A$=Q$)
    :ON A GOTO340 ,350:GOTO330:REM3
340 CLOSE 2:RETURN:REM109
350 GET#2,A$:A$=- (A$=Q$):ON A GOTO360
    :B$=B$+A$:GOTO350:REM141
360 NF$(DE)=B$:REM14
370 GET#2,A$:IF A$=SP$ OR
    A$=CHR$(160) THEN
    B$=B$+A$:GOTO370:REM2
380 B$=B$+A$:GET#2,A$:B$=B$+A$
    :GET#2,A$:B$=B$+A$:GET#2,A$
    :B$=B$+A$:REM2
390 IF DE=0 THEN E$(DE)=B$
    :PRINT CHR$(18)STR$(DE)RS$E$(DE)
    :GOTO440:REM137
400 E$(DE)=B$:REM219
410 IF DE<10 THEN PRINT
    STR$(DE)RS$E$(DE):REM25
420 IF DE>=10 AND DE<100 THEN PRINT
    STR$(DE)SP$SP$E$(DE):REM218
430 IF DE>=100 THEN PRINT
    STR$(DE)SP$E$(DE):REM105
440 DE=DE+1:B$="":POKE 251,DE
    :GET D$:REM15
450 IF D$=SP$ THEN GOSUB470:REM24
460 GOTO330:REM141
470 PRINT CHR$(18)"(L)OAD A FILE OR
    (C)ONTINUE?":REM152
480 F$="":GET F$:IF F$<>"L" AND
    F$<>"[shift L]" AND F$<>"C" AND
    F$<>"[shift C]" THEN480:REM243
490 IF F$="C" OR F$="[shift C]" THEN
    DE=PEEK(251):PRINT CU$ SS$
    CU$:RETURN:REM246
500 CLOSE 2:REM243
510 INPUT"SPECIFY NUMBER OF FILE IN
    MENU",CF$:CF=VAL(CF$):REM47
520 IF CF=0 OR CF>144 THEN PRINT
    CU$:GOTO510:REM218
530 CLOSE 15:OPEN 15,DV,15,"I"
    :CLOSE 15:REM212
540 PRINT:PRINT SP$SP$

```

```

"LOAD AT 2049? (Y/N)":REM55
550 F$="":GET F$:IF F$<>"Y" AND
    F$<>"[shift Y]" AND F$<>"N" AND
    F$<>"[shift N]" THEN550:REM47
560 IF F$="Y" OR F$="[shift Y]"
    THEN600:REM115
570 GOSUB730:REM239
580 PRINT CS$CD$CD$CD$LOAD"Q$
    NF$(CF)Q$", "DV", "1:PRINT
    CD$CD$CD$CD$SYS"SA$HM$:REM70
590 POKE631,13:POKE632,13
    :POKE198,2:NEW:REM6
600 PRINT CS$CD$CD$CD$LOAD"Q$
    NF$(CF) Q$", "DV:PRINT
    CD$CD$CD$CD$RUN"HM$:REM36
610 POKE631,13:POKE632,13
    :POKE198,2:END:REM254
620 CLOSE 15:OPEN 15,DV,15
    :CLOSE 15:REM127
630 IF ST=0 THEN670:REM229
640 PRINT CHR$(147)"TURN ON YOUR
    DISK DRIVE, THEN PRESS":REM174
650 PRINT "<RETURN>":PRINT:REM61
660 C$="":GET C$:IF C$<>CHR$(13)
    THEN660:REM199
670 OPEN15,DV,15:INPUT#15,ER
    :CLOSE 15:REM102
680 IF ER=0 THEN OPEN 15,DV,15,"I"
    :CLOSE 15:RETURN:REM25
690 PRINT "PUT A DISKETTE IN YOUR
    DISK DRIVE,":REM235
700 PRINT "THEN PRESS
    <RETURN>":REM157
710 C$="":GET C$:IF C$<>CHR$(13)
    THEN710:REM80
720 GOTO670:REM124
730 OPEN3,DV,3,NF$(CF):REM94
740 GET#3,A$,B$:CLOSE3
    :CH$=CHR$(0):REM42
750 SA=ASC(A$+CH$)+256*ASC(B$+CH$)
    :SA$=STR$(SA):REM116
760 RETURN:REM105
.....end of line.

```

#### dh Checksum & TipeRite 2.0 (C64)

by James T. Jones

A checksum program allows the user to type a BASIC program and check the entry of each line by displaying a checksum value for that line which can be compared to the value listed with the published program. For example, the line might be:

```

10 DV=PEEK(186)
:IFDV<8THENDV=8:REM 115

```

The user types the line, *WITHOUT* the colon (:) and following REM statement, and if upon pressing <RETURN> a checksum value of 115 is displayed, in reverse video in the upper

left-hand corner of the screen, she can be reasonably certain that the line was entered correctly.

Type the listing and save it to disk as DH ML CHKSUM PRG. When the program of Listing 1 is RUN, a machine language (ML) file, OBJ.DH CHECKSUM, is written to disk that can be used to generate checksum values for different lines of a BASIC program.

Use of OBJ.DH CHECKSUM is easy. On a blank screen line, type:

```
LOAD"OBJ.DH CHECKSUM",DV,I
```

where DV is the device number of your disk drive, and press <RETURN>. Then on another blank screen line, type NEW and press <RETURN>. On yet another blank screen line, type SYS 828 and press <RETURN>. The checksum program will then be active. After you type each line of a published BASIC program *WITHOUT* the colon (:) and following REM statement, press <RETURN>. In the upper left-hand corner of the screen, a value in reverse video will displayed which can be compared to the published value. If the two values are the same, then you can be reasonably certain that the line has been entered correctly. If they are not the same, check the typed line against the published line, make any necessary changes and again press <RETURN>. Repeat this process until the correct checksum value is obtained.

You can SAVE a portion of a program that you have typed, then LOAD it when you are ready to resume the "type-in". Just deactivate the ML checksum program first by typing, on a blank screen line in Immediate or Direct Mode, SYS 828 and pressing <RETURN>.

If you want to compare the checksums of the lines of a BASIC program on disk to the corresponding checksums of a published listing of the program, deactivate OBJ.DH CHECKSUM as above, then LOAD the BASIC program. Activate OBJ.DH CHECKSUM again. Then list the program in groups of five lines, and press <RETURN> for each line and compare the displayed checksum with the published value.

10 PRINT"DIEHARD" will yield the same checksum value as 10PRINT"DIEHARD" or 10?"DIEHARD". A BASIC line with abbreviations for keywords will yield the same checksum value as the corresponding line without abbreviations.

```

1 REM COPYRIGHT 1994 LYNNCARTHY
    INDUSTRIES, INC. ALL RIGHTS
    RESERVED:REM 172

```

Listing continues on page 35.

# Grappling the Great Gooney!

## Or -- How to Install GEOS

### What's a "gooney?"

It's a dumb but useful pronunciation of GUI, an acronym for Graphic User Interface and currently a popular buzzword in personal computing. The most talked about GUI nowadays is **Windows** by Microsoft. Oddly enough, it is also the most recent arrival. Today you see PC ads including **Windows** free. You could have seen similar ads linking the **commodore 64C** and **GEOS** back in 1986!

Last November's *dieHard* contained an interview with CMD which stated the computing industry was moving toward graphical interfaces, evidenced by the popularity of the Macintosh and **Windows** on the IBM platform. They added, "in the **commodore** market... a lot of people that are wanting to dabble with **GEOS** for the first time."

### Mission Impossible?

I had fallen asleep watching late night reruns on TV, when I was awakened as in a dream. A deep editorial voice exclaimed, "From dieHards across America, there has been a resurgence of interest in **GEOS**! Unfortunately, the installation instructions in the manual seem confusing. Users trying to use this "user-friendly" product sometimes feel like they have grappled with an opponent!"

"Your mission, Dale, should you choose to accept it, is to illustrate the easiest method of installing **GEOS 2.0** and creating work disks and thereby rescue anyone *wrestling* with this "GUI" problem. As always, if you fail, this magazine will disavow any knowledge of your actions. This dream will self-destruct in five seconds..."

### The Background Check

I awoke in a cold sweat! What should I do? The first important step of any investigation is the background check, so I decided to find out where GUI came from.

I discovered GUI was born in 1978 at Xerox PARC. The midwives were an elite group of computer scientists who conceived of a more user-friendly way to operate a computer. The first method, you will recall, was to use "BASIC" English. Users typed in lines of BASIC commands to accomplish any computer task. To move to the next stage, the folks at Palo Alto Research Center created an office desktop on a computer screen. Most tasks could be done quite easily by moving a mouse around the screen [desktop] and clicking a button. Computers could be operated simply by

manipulating graphics rather than typing.

Steven Jobs, co-founder of Apple Computer, Inc., saw their work and went nuts. He demanded that this graphic environment become the standard interface for the Macintosh. Consequently, when the Macintosh was introduced in 1984, it became an immediate commercial success! (Steven Jobs, the Journey is the Reward, by Jeffrey S. Young; Scott, Foresman and Company, 1988.)

My investigation also uncovered a "dark" side of GUI's personality. *GUI's love to eat!* They will gobble bytes faster than Wimpy with a plate of burgers! For instance, **Windows** (for PC's) needs 4 megabytes of memory to work smoothly. In fact, these memory constraints are one reason why the Apple Company, after marketing their GUI on the 16-bit Macintosh, did

New users trying to use this "user-friendly" product



sometimes feel like they have grappled with an opponent!

not immediately make one for the 8-bit Apple!

A certain brilliant programmer named Brian Dougherty believed in GUI's and our 8-bit machines! Fortunately for you and I, he chose to start with the **commodore**. He founded a company called Berkeley Softworks and soon produced a program called **GEOS**, which stands for *Graphic Environment Operating System*.

Although our GUI is more efficient than most, there are limits. For instance, it normally takes 1000 bytes of memory to store the screen; but in hi-res graphic mode, that figure jumps to 8000 bytes! **GEOS**, which uses the hi-res mode, may require a backup screen as well. So, **GEOS** sometimes reserves nearly one-fourth of the C64's available memory just to manipulate the screen!

Another of GUI's character flaws is a reputation for being temperamental. After all, a graphic environment necessitates a greater complexity of programming. Not surprisingly, GUI's have been prone to unexplained crashes. (Ask PC users about **Windows**.) Of course, our GUI has been around seven years now; and the latest version, **GEOS 2.0**, seems bug-free (almost!), but the temperamental reputation persists.

### Reality Check

Can we speak frankly? New **GEOS** users may feel frustration when expectations conflict with reality. I have a good friend who constantly uses **GEOS** on his C64 with a single 1541 drive, and just as constantly, he complains it's *too slow*. NO WONDER!!! Running **GEOS** with a single 1541 drive is like racing a car with a 30 mph governor on your engine. You can't go any faster than your equipment allows!

In 1986, I owned a C64 and a 1541 drive, and I was content. Then I purchased **GEOS**. Today I use a C128 with a CMD Hard Drive [20 Mb] as drive A, a CMD RamLink [4 Mb] as drive B, and alternate between a 1581 and 1571 for drive C. Every stick of this additional equipment was purchased for only one reason... I was trying to access all the terrific options **GEOS** offered. None of this, you see, was *my fault!* *GEOS made me do it!*

You may be asking how much equipment is enough to run **GEOS** effectively? That answer comes in two parts. First, I do not believe **GEOS** was ever intended to enhance a one drive system. **GEOS** begs for two drives (*or more!*) Truthfully, after you have made your work disks, you can operate most applications in **GEOS** fairly well from a single drive. But if there is a choice, why walk when you can run!

Secondly, do not judge **GEOS** until you have seen it run on an REU or RAMLink. Why? Because **GEOS** puts so much into your computer that it feels like a crowded room where people have to take turns breathing.

For example, to operate the photo manager, **GEOS** must first take a block of data out of memory and store it to disk in a *temporary* file. Next, the photo manager is loaded to that area and goes to work. After you finish with it and click on quit, **GEOS** stores the new data to disk; and before you can begin the next job, it must reload the data from the temporary file.

This cycle of SAVE, LOAD, RESAVE, RELOAD is the "heart and soul" of **GEOS** processing. This is why you hear **GEOS** often described as very disk-intensive. However, all this disk activity is *nearly invisible* when **GEOS** is run on a ram expansion. No one should make a judgement on the value of **GEOS 2.0** until they have used it successfully with a memory expansion cartridge. Why run when you can fly!

### Planning for Installation

The main area in the manual where the installation instructions seem unclear revolves around the question of keying your new system

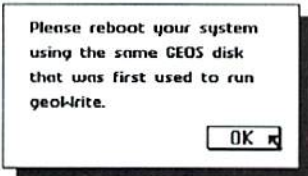


by Dale Sidebottom

boot disk to a previously installed GEOS system disk.

First, let me clarify how GEOS copy protection works. At installation, every commodore GEOS SYSTEM DISK is implanted with a secret key number. Afterward, whenever you open a new application such as geoWrite or geoFile, this key number, which is unique to your system disk, is installed on that application as well. So the first time you open a new application, you get a dialog box with a message such as "geoWrite 2.1 installed."

Later on, should you lend a work disk to a friend who forgets to replace your geoWrite application with a copy of his own, a dialog box pops up to remind you both that the key number on his desktop does not match your geoWrite. Your GEOS applications are not supposed to run on his GEOS system!



Please reboot your system using the same GEOS disk that was first used to run geoWrite.

How can this affect you? If you have ever used GEOS, you probably have applications that could become useless to you if the new GEOS upgrade does not have the same key number as the old. ALWAYS key your new GEOS system to your old one, even if you had GEOS (64) and now are installing GEOS 128!

If you have purchased GEOS 2.0 (or GEOS 128 2.0) and find you have no reason to key it to any other GEOS system currently in use, relax. Installation will be a breeze!

If you fit into the category of wanting your new GEOS system disk to be compatible with an old one, then you must do the following:

Locate just one original disk which has on it an application that was installed with the old GEOS boot disk. The important word here is "original." You might copy an installed application onto a thousand work disks, but the only disk that can key a new system disk to your old one is the disk on which it was first installed. If you have any confusion on this point, DO NOT INSTALL! Call a geofriend or CMD, but be clear on this before you proceed!

#### Preparation before Installation:

1. Equipment needed... a commodore 64 or 128 (in 64 mode), a monitor, a 1541 or 1571

disk drive, and a joystick. Hook them up and turn them on. [Installing GEOS 128 2.0 will require a commodore 128 in 128 mode.]

2. Remember, if you do not have two disk drives, borrow one. Creating GEOS work disks with a single drive is akin to straining sap through a sieve in dead winter. With two drives (1541s or 1571s in any combination), it becomes a piece of cake! (Plug the second drive into the first, but do not turn it on.)

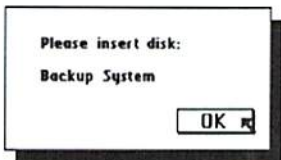
3. If you want to key your system to one previously installed, you must have an original disk containing any application such as geoWrite, geoFile, or geoCalc, previously installed on the old boot disk. (Never select geoPaint, since it has no copy protection.) [ANY application installed on your old 64 boot disk will enable you to key your GEOS 128 system disk.]

4. Check out your GEOS 2.0 disks. You must have three of them. Disk 1 has the SYSTEM DISK on side A. Disk 2 has the BACKUP SYSTEM DISK on side A and the APPLICATIONS DISK on Side B. Disk 3 has WRITE UTILITIES on side A and GEOSPELL on side B.

Also, have at least six blank disks ready for making copies.

#### Installation Procedure:

1. Put your SYSTEM DISK, (Disk 1, side A) in your disk drive. Type LOAD "GEOS",8,1 and hit RETURN. [GEOS 128 will autoboot from Drive A.] In a few seconds you will see the screen clear and the words "BOOTING GEOS . . ." on a blue background. Soon a dialog box will appear that says...

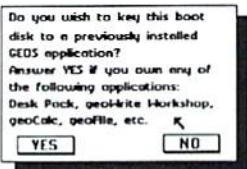


Please insert disk:  
Backup System

2. Remove the SYSTEM DISK and insert the BACKUP SYSTEM DISK (Disk 2, side A). You must click the fire button on your joystick while the arrow-pointer is positioned over the "OK" box. If your joystick quits, you can always use the cursor keys and hit RETURN instead.

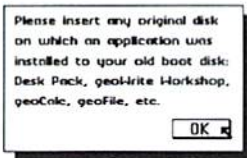
3. You now have the dialog box that asks for your decision. [GEOS 128 dialog box looks different but asks the same thing.] If you want to key your boot disk to an old GEOS boot disk, use your joystick to position the arrow over the "YES" box. If not, then position it

over the box that reads "NO."




Do you wish to key this boot disk to a previously installed GEOS application?  
Answer YES if you own any of the following applications:  
Desk Pack, geoWrite Workshop,  
geoCalc, geoFile, etc.

Remember, once you click to confirm your decision, you cannot reverse it. When you are ready to proceed, click the firebutton. (If your choice was "NO", skip step #4 and go down to step #5.)



Please insert any original disk on which an application was installed to your old boot disk:  
Desk Pack, geoWrite Workshop,  
geoCalc, geoFile, etc.

4. You must now insert that original disk we discussed earlier, the one with the previously installed application which contains the key number of the old GEOS boot disk. Then click "OK."



Please insert disk:  
System

5. You should now be looking at a dialog box like the one above. So remove whatever disk is in the drive and insert your SYSTEM DISK (Disk 1 Side A) again as you did in step #1. Click on "OK."

6. This step is a repeat of step #2. Return your BACKUP SYSTEM DISK (DISK 2 Side A) to the drive; click "OK."

7. This is a repeat of step #5. Return your SYSTEM DISK (Disk 1 Side A) to the drive and click "OK". In a minute or so, your new SYSTEM DISK will boot up GEOS for the first time. CONGRATULATIONS!

Put write-protect tabs on your SYSTEM DISK and BACKUP SYSTEM DISK. Then return the SYSTEM DISK to drive A.

You are now ready to "Install your Applications" as described on page 7 of your manual. If you are not in a hurry, I will cover this in Part 2. We will also familiarize ourselves with the GEOS desktop and learn the absolute easiest way to make work disks. All this and more in the next installment of *Grappling the Great Gooley!*

READY.

## Trader's Corner

Got something to trade? Need something? Try here. Maybe one of our readers has just what you're looking for. Or perhaps they want what you have. Trader's Corner is free to subscribers looking to trade or buy only. TCs will be listed for one issue only. Classified ads are available for \$0.25 per word. All disks must be originals. Any backup copies may be traded, provided the original accompanies them.

**Wanted:** C65 (sixty-five). Transactor Magazines. Cartridges for plus/4, C16, VIC20. CBM 4080. #000000, BLC, 816 W. Bannock Street, Suite 502, Boise, ID, 83702-5850.

**Wanted:** CPM systems disk and manual for 1581 disk drive. #C008559, William Espenschied, 753 Highland St., Longwood, FL, 32750.

**Wanted:** Instructions/documentation for Final Cartridge III. #C000106, Donald H. Graham, 417 Phirme Rd., Glen Burnie, MD, 21061-4648.

**Wanted:** User manual for Timeworks Word Writer 128. #C009268, Jeff Tippett, 20300 Harvard Way, Riverside, CA, 92507.

**Wanted:** Program originally sold by Commodore to work with their Easy Script word processor program. The program was called Easy Spell and is a spell-checker which links to Easy Script. Documentation and disk would be appreciated. SX-64 system. #C009061, Walter Blount, Rt 2 Box 131A, Deming, NM, 88030-9695.

**Wanted:** Information on how to get a replacement for my 1541 Backup program or any other good backup program. #C008832, Keith L. Naegle, 11410 Stallion Lane, Holly, MI, 48442.

**Wanted:** Utilities Unlimited Supercard+ that will work with a 1541 II or 1571 drive. #C006656, Rodger D. Jarvis, 907 Airview Dr., Jefferson City, MO, 65109-0603.

**Wanted:** A Bowling Secretary program for C64 to record all info (league standing sheets, recap sheets, end-of-year reports, high to low avg list, multiple leagues, match points, etc.). #C007275, Robert W. DeJonge, 241 W Central Ave., Zeeland, MI, 49464.

**To Trade:** I have a VIC-20 in good condition with a working power supply which I will trade for back issues of LOADSTAR for the C64 only. #C006529, Don R. Craig, 1494 Texas Dr., Xenia, OH, 45385.

**Wanted:** Paperclip III, including manual and doc. Am willing to pay reasonable price for sound, workable program. #C006853, M.E. Knowles, 707 Windsor Ave., Lawrenceville, VA, 33868.

**To Trade:** VIC-20, 16K expander, cassette unit, 1541 drive, modem, joystick, and game cartridges for a letter-quality printer.

#C007283, Fred Norris, 5525 Laureldale Rd., Dayton, OH, 43429-2023.

**Wanted:** The Write Stuff program and manual plus Tax Return 1993 program, if any, featuring print forms. #C006936, Salvador Ramos, 2128 SW 138th Ct., Miami, FL, 33175-7535.

**Wanted:** Plus/4 software, VIC-20 cartridges, commercial CP/M software, old Commodore and Transactor magazines. #C004081, Gary Stagliano, 176-J Homestead St., Manchester, CT, 06040.

**Wanted:** Books on interfacing with C64. #C004768, Karl H. Gerlt, P.O.Box 221, West Farmington, OH, 44491.

**Wanted:** Quickpro+II instructions for C64, or info on how/where to acquire same. #C001733, Robert F. Perry, 129 Bay Ave., Patchogue, NY, 11772.

**Wanted:** A user guide/owner manual for C128D. #C004854, Edward Nordmark, 4 Crocus Ln., Commack, NY, 11725-3609.

**Wanted:** Troubleshooting and Repairing Your Commodore 64, by Masgolis. #C009259, Samuel Chiang, 959 12th Ave, Honolulu, HI, 96816-2250.

**To Trade:** 1541 disk drive internally set for drive #10 for a Super Snapshot Cartridge. #C007325, Art Johnson, 1005 S. Main, Fremont, NE, 68025.

**Wanted:** Appraisal software program for 128 to complete a URAR appraisal form. #C008331, Gene Sills, Rt 4, Kosciusko, MS, 39090.

**Wanted:** Book "1001 Things To Do with Your Commodore 128" by Sawusch/Prochnow. This is now out of print by McGraw-Hill. #C005889, Ned T. Norris, Box R 38 Garmisch, Unit 24514, APO AE, 09053.

**Wanted:** Guitar Wizard by Baudville, MIDI interface (C64 or C128), Dr. T's (C64 or C128), Easy guitar by DJ Software, GEOS Inside & Out by Abacus, Anatomy of a 1541 by ?? Will buy, or have VIC-20 games, RAM cart, etc., to trade. #C009232, Patti Stinton, 1040 Dahlia Terrace, Eagle Point, OR 97524.

**Wanted:** SIDDers to correspond and trade SIDs with. #C008539, Oren Adams, 213 Crestview Lane, Glenburn, ND, 58740.

**Wanted:** Looking for a copy of a schematic for Commodore Monitor Model 1802. #C009082, Chet Kruczek, 29 Brookhaven Drive, East Longmeadow, MA, 01028-1406.

**Wanted:** Data Manager 128 (Timeworks), CADPAK128 (Abacus), Basic Compiler 128 (Abacus), CAD 128 Book (Abacus), and Spectrum 128 (Free Spirit). #C000381, Noel Plank, 1095 Honeysuckle Court, Tracy, CA, 95376-9788.

**To Trade:** Simon's Basic (cart), Ernie's Magic Shapes (cart), Big Bird Special Delivery (cart), Visible Solar System (cart), Getting Ready to Read & Add, World Geography by Bobco, Ghost Writer 128 (\*unopened), Fontmaster 64,

Master 64, and Trackmimic (hdwr/software copy prog. 1541). #C000381, Noel Plank, 1095 Honeysuckle Court, Tracy, CA, 95376-9788.

**Wanted:** Gold Disk Dec'83 Volume I that runs and Multiplan V1.06 as a backup. What do you need, how much do you want? #C000339, Don Hilb, 2101 W. Escuda Dr., Phoenix, AZ 85027-4136.

**Wanted:** Original 4-slot Aprospand cartridge expander and Super Graphix Gold printer interface. #C000425, Paul S. Highland, 5550 Traffic Way #3, Atascadero, CA 93422-4293.

**Wanted:** Commodore +4. #C000462, Robert E. Castle, 421 N. Main St., McAllen, TX 78501-4634.

**Wanted:** Contact with other dieHard members in my area. #C000955, Robert Clements, 410 6th Ave., Laurel, MT 59044+2316.

**Wanted:** Flow chart program for C64 or C128. #C000227, William H. Clark, 8727 Weidkamp Rd., Lynden, WA 98264.

**Wanted:** Question disk for "Jeopardy" game. #C001488, Bernard O. Babbie, P.O.Box 881, Tupper Lake, NY 12986.

**Wanted:** The Last One. With manual and all disks. #C002832, James D. Lee, 2050 Seward Ave. #11D, Bronx, NY 10473.

**Wanted:** Software for aligning a 1541 disk drive. #C003531, Byron Sauve, 16270 W. 13th Ave., Golden, CO 80401.

**Wanted:** Star Frontier 1.2 program. It was uploaded to Q-Link by SethH15. Companion files are there, but the boot program is no longer available on the system. Also looking for used copy of Dragon Strike (docs not needed). #C002953, Dick Estel, 3487 E. Terrace Ave., Fresno, CA 93703-1939, (209) 224-4163.

**To Trade:** I have (1 ea) 8040 CBM drive, (1 ea) CBM 8032 computer, (1 ea) Hearsay 1000, (1 ea) 1525 printer, (1 ea) MPS 803 printer, and (1 ea) 1581 drive w/JiffyDOS. I want C64's and 1541 drives in good condition. Prefer 1541 w/short board, but not important. #C003789, Charles M. Cook, 10520 Saigon, El Paso, TX 79925.

**Wanted:** Xetec Super Graphics Jr. printer interface. Will buy outright or trade Perfect Print for GEOS program w/fonts and docs or complete Fleet System 4 program. Would trade 1764 + boot for 1750 REU. #C003626, Donald A. Weaver, P.O.Box 443, Osawatomie, KS 66064, (913) 755-4593.

**Wanted:** BusCardII produced by Batteries Included and MSD SD-2 (dual disk drive). #C003620, Wayne Persky, Rt 1 Box 238, Bartlett, TX 76511.

**Wanted:** Communications with other persons who have used or are interested in using the 8bit commodore computers in conjunction with robotics. Dreamers welcome. #C005478, G.M. Walter Jr., 11480 Robious Rd., Richmond, VA

23235-4310.

**Wanted:** I just fell heir to a Prowriter 8510 parallel printer and am in need of a Super Graphix interface unit and cable with manuals for connecting to my C64 and two 1541 drives. #C004191, Robert H. Hollis, 8515 W. 92nd St., Overland Park, KS 66212-3021.

**Wanted:** Injured Engine program with instructions. #C004656, Arthur Eve Jr., 1440 Lakeside Dr., Venice, FL 34294-2819, (813) 493-9679.

**Wanted:** I've started a Computer Reference Library to keep some computers from going under. Would any dieHard readers be interested in contributing to the cause? #C007626, Wayne & Faith Nell, RR2 Box 299B, Pittsboro, NC 27312-8224.

**Wanted:** Manuals, or copies of same, for the VIC-1525 printer and Thomson 4120 color monitor. #C006721, Edward S. Hickey, 40 Miller Hill Rd., Dover, MA 02030-2332.

**Wanted:** Used G-Link or similar interface to connect IEEE bus devices to the C64. #C006590, Dr. Philip Hoff, 34 El Cerrito, Chico, CA 95926.

**Wanted:** Turbomaster accelerator cartridge for the 64. Also interested in the Master Adaptor to use the Turbomaster with ram expansion. Will work out price or trade a ComputerEyes Digitizer with cable, complete with Doodle! and Newsroom compatible drivers (three disks in all). #C008689, Scott Eggleston, 4574 Via Santa Maria, Santa Maria, CA 93455.

**Wanted:** Latest copy of DESTERM for C128D. #C009192, Bill Adcock, P.O.Box 785, Kilgore, TX 75663-0785.

**Wanted:** Address of a company that sells ribbon cartridges for a MPS 801 printer. MEI/MICRO CENTER in Columbus, OH has discontinued these. #C008714, Mayona Munsch, 918 Riverview Ave., Bismarck, ND 58504.

**Wanted:** Software only for Koala Pad -- have the pad. Will swap disk for disk. Have worlds of Public domain programs of all kinds. My specialty: 6 track stereo classical music. #C008853, Rolfe Wagner, 134 Rd 2390, Aztec, NM 87410.

**To Trade:** IBM printer in good condition and Commodore 1530C2N data-cassette like new. #C009678, James J. Clinton, 117 5th St., #10, P.O.Box 311, San Juan Bautista, CA 95045-0311.

**Wanted:** Spinnaker Better Working Word Publisher (for GEOS). #C008067, Christopher D. Hopp, 1954 Planavon, Ferndale, MI 48220.

**Wanted:** Documentation for Commodore 1764 Ram Expansion. #C001202, Fred Warren, 120 Shimon Ct., Marquette, MI, 49855-9036, Phone: (days) 906-228-3222, (evenings) 906-249-3083.

**Wanted:** C128D and a cartridge port expander. #C006764, Edward Rohan, 317 S. Rose St., Anaheim, CA, 92805.

**To Trade:** C64 and 1541 disk drive with JiffyDOS, 1541 disk drive, datasette, 803 printer, and Seikosha SP 1000VC printer for a 128K Quick Brown Box (QBB) cartridge and/or GEOS 128 with geoWrite 128 & geoPaint 128, and/or C128 compatible speech synthesizer or almost any hardware/software. #C005957, Dario Fernandez, 4316 Willowbrook Ave., #5, Los Angeles, CA, 90029.

**Wanted:** Contact with dieHards in 55-- zip code (MN) to answer GEOS program questions and share info, etc. I'm 71 years young and a C64 user since 1984. #C002046, Ernest M. Johnson, RR 1, Box 279, Austin, MN, 55912.

### Classifieds

**For Sale:** UNUSUAL 64 SOFTWARE. GREAT FOREIGN-AMERICAN Utilities, Graphics, Hacker, Ham and Arcade Games. 25 Adult Disks--Full disk sides \$2 to \$5. \$0.29 stamp gets new catalog. Home-Spun Software, POB 1064DH, Estero, FL, 33928.

### RESTORE

**For Sale:** Like-new C128D computers with built-in 1571 disk drive and detachable keyboard. No manuals. 30-day guarantee. \$159 + \$10 shipping (continental U.S.). Huge selection of new and used Commodore 64 and 128 hardware, software, and accessories. Many hard to find items. Some Amiga, CDTV, IBM, Apple, and Macintosh also. Excellent prices. \$1 for BIG list: Computer Bargain Store, 3366 South 2300 East, Salt Lake City, UT, 84109. Voice (801) 466-8084 -- 4-7PM Mountain Time Zone. FAX (801) 486-9128 -- 24 hours.

Listing continued from page 31.

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20 PRINTCHR$(147)CHR$(5)
   CHR$(142)CHR$(8):REM136
30 DV=PEEK(186):IFDV<8THENDV=8:REM132
40 FOR I=828 TO 998:REM 70
50 READ X:POKE I,X:S=S+X:NEXT:REM 210
60 DATA120,162,84,160,3,173,4,3:REM194
70 DATA201,84,208,4,162,124
   ,160,165:REM 164
80 DATA142,4,3,140,5,3,88,96:REM 65
90 DATA32,124,165,152,72
   ,169,0,133:REM 252
100 DATA251,133,252,166,20
   ,164,21,134:REM159
110 DATA253,132,254,170
   ,189,0,2,240:REM 29
120 DATA58,201,48,144,7
   ,201,58,176:REM 71
130 DATA3,232,208,240,189,0,2,240:REMO
140 DATA42,201,32,208,4
   ,164,252,240:REM28
150 DATA31,201,34,208,6
   ,165,252,73:REM196
160 DATA1,133,252,230,251
   ,164,251,165:REM5

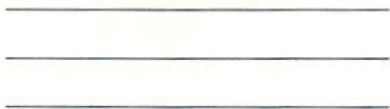
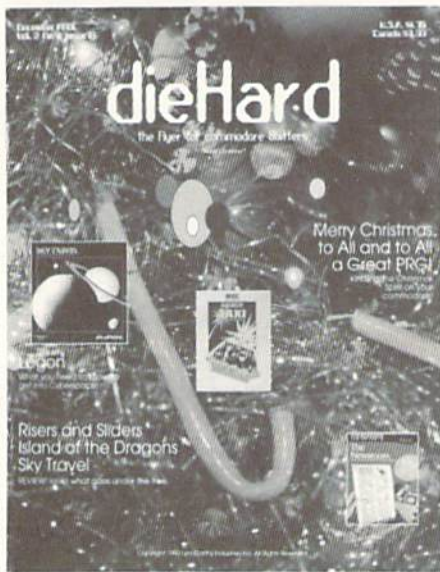
```

```

170 DATA253,56,253,0,2
   ,133,253,165:REM177
180 DATA254,105,0,133,254
   ,136,208,239:REM113
190 DATA232,208,209,240
   ,42,32,210,255:REM49
200 DATA165,253,69,254,170
   ,169,0,32:REM172
210 DATA205,189,169,32,32
   ,210,255,32:REM159
220 DATA210,255,169,146,32
   ,210,255,169:REM85
230 DATA13,32,210,255,104
   ,168,104,170:REM84
240 DATA24,32,240,255,104
   ,168,96,56:REM170
250 DATA32,240,255,138,72
   ,152,72,24:REM83
260 DATA162,0,160,0,32
   ,240,255,169:REM163
270 DATA18,208,194:REM 149
280 IF S<>23101 THEN PRINT
   :PRINT"ERROR IN DATA!":END:REM200
300 SA=828:EA=998+1:REM ENDING
   ADDRESS PLUS 1:REM 185
310 H1=INT(SA/256):L1=SA-(256*H1)
   :H2=INT(EA/256):L2=EA-
   (256*H2):REM 172
320 SYS57812"OBJ.DH CHECKSUM",DV
   :POKE193,L1:POKE194,H1
   :POKE174,L2:POKE175,H2:REM 29
330 SYS62954:CLOSE15:OPEN15,DV,15
   :INPUT#15,ER,ER$:REM 19
335 IF ER<>0 THEN PRINT:PRINT
   ER,ER$:PRINT#15,"I":CLOSE 15
   :END:REM 218
340 PRINT#15,"I":CLOSE15:PRINT
   :PRINT"THE CHECKSUM PROGRAM IS
   NOW ACTIVE.":REM 9
350 PRINT"SYS 828 TOGGLES PROGRAM
   OFF OR ON.":PRINT:REM 212
360 PRINT"A FILE HAS BEEN CREATED ON
   DISK. IN":REM 120
370 PRINT"FUTURE PROGRAMMING
   SESSIONS, TYPE":PRINT:REM 61
380 PRINT"LOAD"CHR$(34)"OBJ.DH
   CHECKSUM"CHR$(34)",DV,1"
   :PRINT:REM 215
390 PRINT"AND PRESS <<RETURN>>,
   WHERE DV IS THE":REM 53
400 PRINT"DEVICE NUMBER OF YOUR DISK
   DRIVE.":REM 155
410 PRINT"THEN ON A BLANK LINE, TYPE
   "CHR$(34)"NEW"CHR$(34):REM 63
420 PRINT"AND PRESS <<RETURN>>.
   SYS 828 WILL":REM 28
430 PRINT"TOGGLE THE PROGRAM ON OR
   OFF.":PRINT:REM 252
440 PRINT"IT IS RECOMMENDED THAT YOU
   TOGGLE":REM 232
450 PRINT"PROGRAM OFF BEFORE SAVING A
   PROGRAM.":REM 201
460 SYS828:NEW:REM 85

```

.....end of line.



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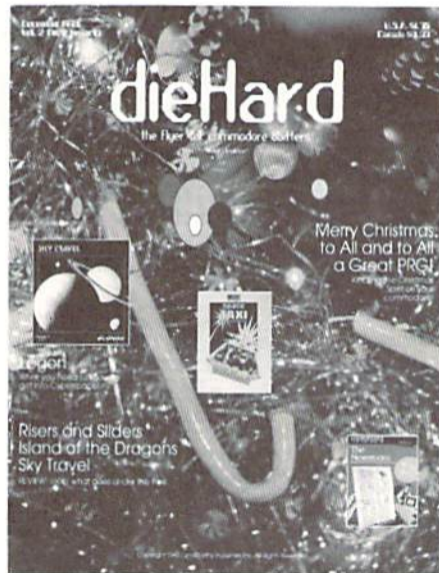
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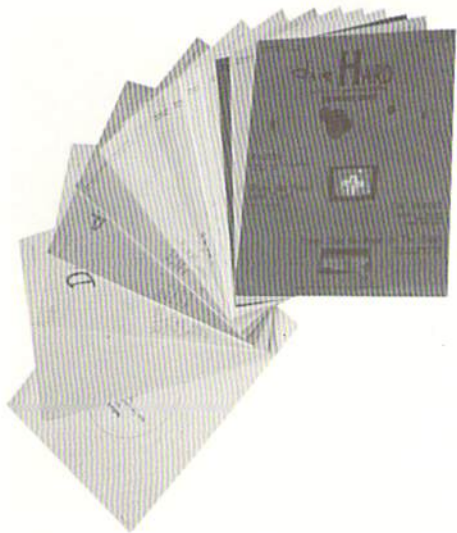


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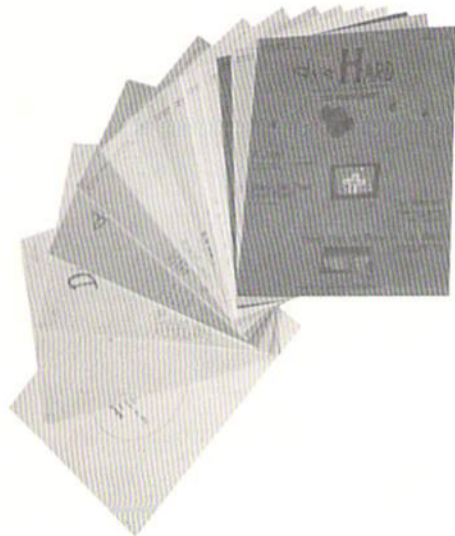


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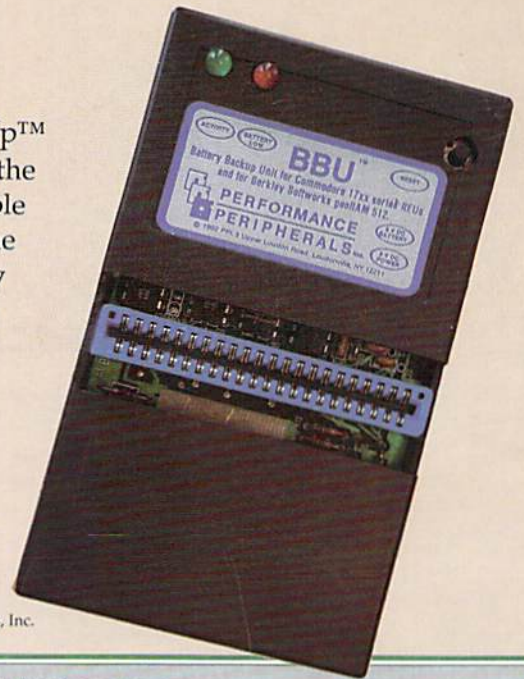
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