dieHard

the Flyer for commodore 8bitters

Plug 'n!

JiffyDOS
V6.01 ©19
Creative Micro Designs Inc.
1571D

JiffyDOS!

REVIEW! takes a look at the
world's premier fastload utility

The Four Food Groups!

BASIC's basic building blocks

Hook Up That Modem!

Dig out that old CBM modem
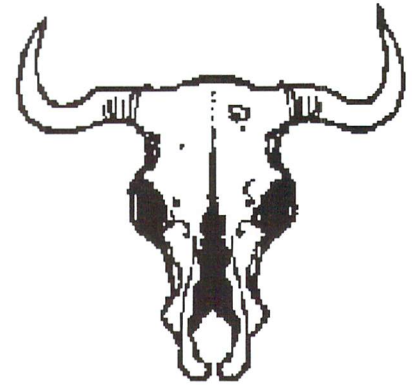and hook it up!

Sequential File Usage
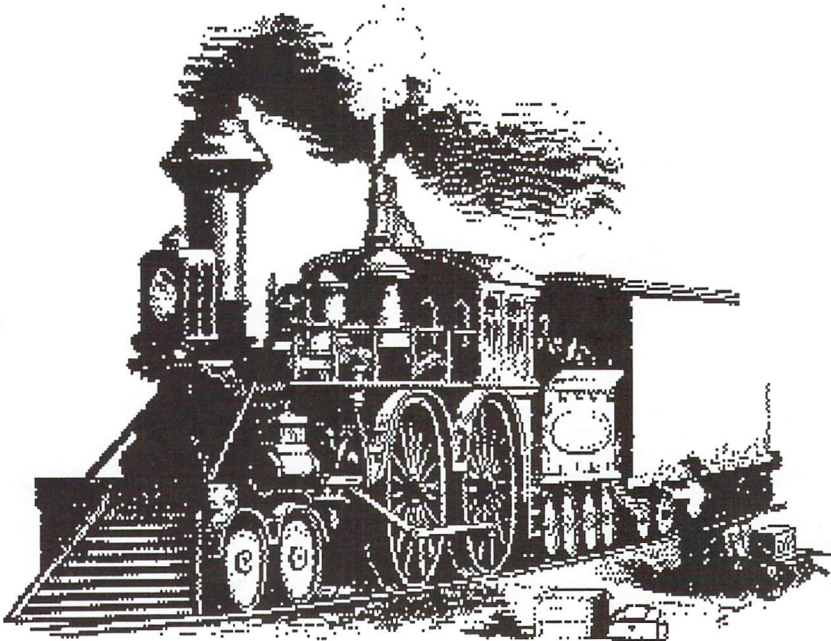
More on using sequential files

and more...

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dieHard

the Flyer for commodore 8bitters is written and compiled on **commodore** 8bit equipment. It is then typeset on a C128D computer using **geoPublish**. The system consists of a **commodore 128D** personal computer with an internal 1571 disk drive, external FSD-1 and 1581 disk drives, a **commodore MPS 1270** inkjet printer with a CARD?+G parallel interface, a **commodore MPS 803** dot matrix printer, **commodore 1670** modem, an Aprospand 64 cartridge port expansion unit, a **commodore 1764** RAM Expansion unit expanded to 512k, **Simons' Basic** cartridge, **HEARSAY 1000** voice cartridge, Super Expander 64 cartridge, a **commodore Datassette**, M-3 mouse, TAC 2 joystick controller, AMIGA 1080 80/40 column RGBI/composite monitor and a **commodore model 1701** 40 column monitor. Our masters are printed on an HP Laserjet II by Douglas Bober in Allison Park, PA. And the magazine you hold now is printed by Northwest Printing, Inc. here in Boise ID.

the Mental 1/O bus

Coverstory: JiffyDOS, photographed by Brian L Crosthwaite on a Nikon FM with 200mm macro, f11, @ 125 sec., 1/3 mag, w/flash to fill, using Kodak Gold Plus 100 film.

The View From The Underground
by
Brian L Crosthwaite
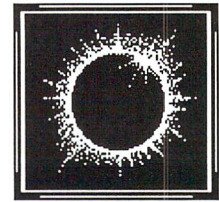
This month we start off our new telecommunications column by R. J. Smulkowski. **PAPSAW** gets you hooked up to log on. I'm re-running the Boolean article. (It had been down sized, messing everything up in the process. One of those late-night "looks ok to me..." things.) Roger Gouin launches a series that is a plea to programmers. **REVIEW!** takes a look at **JiffyDOS!** We have more **geoTips**, **DOS**, and so on and so forth... This issue is packed!

Our new receptionist takes the phone away from me. She sounds a little nervous sometimes, because this is a new experience for her, so folks, cut her some slack.

Grafix

This month's graphics come from the many files of -- Yo, Scot, where'd you get these babies anyway??

Several readers have inquired about the graphics we use in dieHard. Well, wonder no further. We use Public Domain GEOS graphics from many sources. Dick Estel, Those Designers, Diskart, GeoWorld, Susan Lamb, Inkwell, and Q-Link are the sources used so far. Of course, we are always looking for quality GEOS graphics, so if you have or know of any, let us know about it. One of these days, maybe a scanner will appear in our offices so we can really have fun!

On The Eastern Front

Scot has sent two of our June/July issues to the Middle-East. He is also sending issues to Ireland. These people wrote *him*. Scot is one of our grapevine branches that reaches deep into the underground.

Space

As you may have noticed, **dieHard** is growing in size. This is, in part, due to advertising. I think it is important for our readers to know where we stand on running ads in **dH**.

Let's face it. If you want the latest and the greatest in software for an MS-DOS machine all you've got to do is run out to the nearest software store and you can find it. Although, most of stores could special order **commodore** titles, the sales people won't even look in their listings "because the **commodore 64** is a game machine and they haven't made them in years."

If you want to see what's out there, you've got to go to a shop that specializes in the "c" machine. I am fortunate, I have two within thirty miles of my home.

Reviews in magazines are great and there are a few "c" machine supporters out there. **dH** is one of them. But, reviews are just the beginning. I loved looking at the ads in **RUN**; it was a great way for me to find things for my machine. I still look for ads in many of the other publications.

In the name of support, **dieHard** will publish advertising. This is a two way street. Advertising gives the marketeer a chance to show his or her goods. It gives the consumer a chance to see what's out there. This is what we at LynnCarthy Industries Inc. feel that **dH** is all about -- offering as much support as we can.

Advertising brings in revenue to pay writers better money for their work. We view this as support for both the writers and the readers. Good compensation for effort tends to stimulate further effort and better quality.

We are actively solicitting advertising from those who support the **commodore** 8bit world. We do not consider this a sell-out in any way. We will never cut an article down to bring in an ad. We will add more pages if necessary, to keep the materials within the pages of **dH** at the high quality our readers have become accustomed to.

Enough already -- enjoy.

READY.
■

INPUT; READER$

I must say that your publication is aptly named. My experience with the Commodore 8bitters goes back to 1982, when I bought my first computer, a C64, along with a datassette unit. (Both are still operating). Of course, over the years there have been additions - first a 1540 floppy drive, (yes - a genuine, white-cased 1540!), then a Gemini 10X printer, next two 1541s, then a 1581, then a 1670 modem, then a C128 (a "previously owned" flattop), then a 1750 RAM, and finally, a CMD RAMLink with 4 megabytes of memory. Next, I plan to upgrade the RAMLink to 16Megs.

At work I use an enhanced Everex 386 with math coprocessor, so I am conversant with both sides of the field. In my opinion, the Commodore equipment is much more versatile, with its two three-voice sound synthesizers, (yes, I added a second 5281 chip to both units), accessible cartridge and user ports, and great graphics - especially on the C128 in 80 columns.

All of my equipment is running on a day-to-day basis. I keep my home finances straightened out and do my correspondence on the C128. (I'll probably replace the Gemini 10X with a Canon Bubble-Jet pretty soon - the laser printer here at work has me spoiled).

I play games, compose and play music, and title my home videos on the C64. By the way, the last two are things that you CAN'T do on the "stock" IBM since its display output is configured differently and it has no built-in synthesizer.

As you can see I am an 8bit dieHard first class.
-- James W. Fox of Arlington, Virginia

_____

I sent them (Software Support) $20 dollars and this is the reply. Guess I'll stick to TENEX. Not your fault - grubby (s/w,spt) people can't help themselves.
-- Don Hieb

Here is the attachment:

Don Hieb:
It's true, we do sell grab bags, 10 items for $10. However, we do have a minimum shipping and handling charge of $5.25. For us to fill your order we will require the additional funds. Also for a first time order we recommend a money order or we will hold the order until your personal check clears.
Thank you -- Mike, Software Support International

Sorry, that's my fault, I should have said, "write for more information," since I didn't know the postage costs.

_____

Myself, and several fiends have over the years had various questions that we, for one reason or another, have never had answered. Are you going to have a section dedicated to answering these types of questions? I know all questions can't be answered, at least not easily, but any help would be appreciated.

With many Commodore groups struggling to maintain enough members to survive, I'd like to see user groups submit things they do to reach new members, things they do to keep their meetings fresh and any other ideas they might have.

I love your name **dieHard** and I feel that since Commodore has abandoned us as did many third party supporters, we should all be referred to as dieHards instead of Commodore Users. Scratch that Commodore name off the fronts of our computers and replace it with dieHard. Just a suggestion.

Thanks again for your magazine.
-- Danny M. Koleski of Louisville, Kentucky

Yes, we do have a questions column -- Q & A. If we can't answer the question, we'll post the question so if any readers have an answer, they can let us know and we'll publish it.

That sounds like a great idea -- any User Groups with some neet ideas on how to add pizazs to those meetings can write to: dieHard, ATTN: Rarities, PO Box 392, Boise, ID, 83701-0392.

As many of you well know the dieHard 2001 was the first dieHard computer. I personally use the dieHard 128D...

_____

As claimed by most. The Commodores have done all that I have needed or asked of them. With the exception of "Printshop". To solve this, I picked up a lumbering 386 during the 1990-91 selling frenzy. It does with Printshop just what I wanted. BUT. Believe me. Compared with a 128 connected to a 1581 w/JiffyDos and RamLink, it is slow. I can boot up the 128, make the application entry by the time the 386 has booted up the menu. The 128 does not grunt and groan as the 386 does.

I cut my Commodore teeth on the Compute mag. Learned a lot. Still get the Compute mag. Multi user version that is. Not on a par with the old Commodore-only version. I get a lot from it as a multi-user. Still use **Speed Script** and **GemCalc** from that source. I have carried a long Hate Love affair with Ms. GEOS. Have most applications except could never get my hands on a usable copy of **GeoCalc**. At this time I have her on the shelf with her face turned to the wall. Like the 386.

Keep up the good work. Keep the pub coming. Commodore may be out of the market place but it is far from dead. Be you ahead or behind me, I shall enjoy reading you.
-- John M. Long, of Shippingport, Pennsylvania

`READY.`
∎

In the Q...

"Q-Link is not the priority it was 7 years ago."

Q in the blue...

There appears to be a bug on Q-Link. When ever Q-Link would put new uploads into the library, things in would get over written. This is a file downloaded by Dick Estel on May 28, 1993 that may shed some light on what's going on. Susan Gries is a staff member at America Online, Quantum Link's parent company.

(The following was downloaded from Q-Link Graphic Support area on 5/28/93)

SUBJ: "FACTS"?!   (R4)
FROM: DocJM   05/27/93
S#: 453660

The following statements were plucked out of the transcript of a meeting. The questions asked are NOT included. Neither is the chatter. I'm sure by reading this you'll get the idea of what is transpiring and where things are at. The statements are neither subject to question or criticism...they are statements of fact, and that's how they are to be taken!

Susan CE (Susan Gries):

-Nice to see you all tonight. :))

- No new files have been released to the libraries since I took all of the processes down on the first of February. Up to that point, the number of corrupted file reports had been increasing exponentially. I took the processes down to save as many files as possible and went through my channels to snag a developer to look at the problem. Well....that took three weeks. When he finally DID look at it (this took two weeks)) he reported that it would take him 2 - 6 weeks to fix the processes.
- Because of his assessment of the situation, things are now sitting with the executive staff as to whether resources will be allocated to fix the problem. Lyn (my boss) has my report and recommendation on the situation (as after Paul Gernhardt left the company I was the only person who really knew Q-Link left for the entire senario. Included in this memo were statistics on usage and system performance.
- That was a month ago. A decision is still pending.
- The problems reported in Nov of last year were small when compared with the state of the files as of January. The problem is large.
- The allocation of Development and Computing (my) resources are in question.
- the cause of the processes is Unknown ...it is a random file ID overwrite problem.
- I will not start the process up again until the problem is solved.
- There ARE backups for our libraries... loading them is a last resort. They will not be loaded to only be corrupted again.
- I was assigned a developer...he was new to the software, but conferred with those familiar with the processes. Neither Eric nor Bill will be consulted we are back to the allocation question.

Q-Link is not the priority it was 7 years ago.
- The loss of members is not more than the cost of a Developer... including salary and benefits, Developers are quite expensive. The Developer's pay, benefits and work lost being done elsewhere (like AOL) is much more than the yearly net of Q-Link. Why do we have Developers?...not because they are hired to maintain Q-Link, but to better America Online for the Macintosh, Windows, and Ensemble formats.
- Commodores are not the future...even Commodore has stopped supporting their computers. Right now the future is in Windows and Macintoshes.
- No, AOL isn't trying to kill Q-Link.
- We have talked to Commodore... they have effectively halted the future of the Commodore machines. As I have said before... Commodores are not "the future" as it is stated.
- It is up to the executive staff to make the decision as to whether things are fixed. This applies on all services.
- The problem is deciding if it is feasible to allot the time of a Developer and my time to solve the problem. As I have said before...Q-Link   (and Commodore) is not the priority it was years ago.
- A decision will be made. THAT I can assure you.
- I like my job enough to not want to harass Steve about the decision.
- The mission of the market and

By Brian L. Crosthwaite

the company is not with the Commodore.

- America Online, Inc is protective of its technology. We are very strict about who we allow to have access to it. That is why in the majority of cases, those who work on it are employees.

- I came here at Roger's request...I have told you all the truth. What you choose to believe is your choice.

- I'm not an enemy...nor is it my ambition to kill Q-Link.

- My recommendation was as follows:

The libraries should be fixed. If resources will not be allocated to solve a problem as large as this, then the whole service should be de-managed. I don't believe we should give half-assed support.

SypOpRF: and Sue, thank YOU..:D

- You're welcome...I do wish I had better news. 'Night..:)

_____

What to do. Bail out is not the way to go at this time. That would spell certain destruction for Q-Link. What I would suggest is that we as **commodore** users stay online if you're already there and join if you haven't already. "Get on? Sounds like a dead end to me." If you join Q-Link, you will get a taste of what it is all about. I recommend Q-Link to every **commodore** user. If they vanish in a few weeks then you will have experienced it. And even though things aren't what they used to be, things are still great. You can meet people with similar interests as you. Debate. Share. Learn.

These are just a few of the things that happen on Q-Link every night. Q-Link is a place you really should experience. You can only do good by getting on. Who knows, if all of **dieHard**'s readers who are not online joined, maybe that would be enough to push the numbers up to tell the management -- "hey, this means money!" And we all know what that means.

Q-Link has the world's largest **commodore** specific Public Domain library. This is a place where imagination knows no bounds. There is everything from A to Z. Q-Link is truly a treasure. If it were to disappear, and you were never to have expirienced it, you will have missed out. Joining is a win-win situation. There is just too much there to be bored.

Q-Link is 9.95 per month, with one hour free plus time. Plus time is $.05 per minute, that comes to $3 an hour for plus time. FOR MORE INFORMATION write to:

Quantum Link
8620 Westwood Center Dr.
Vienna, VA 22108
or call:
1-800-827-8444

Maybe if the numbers become even more significant, America Online will see we dieHards are worth hanging on to.

Anyone wishing to reach me online can send me an E-Mail, at dieHard0.
READY.
■

If it were to disappear, and you were never to have expirienced it, you will have missed out.

Basic BASIC

R. Scot Derrer

Beginning BASIC Programming:
GOTO and FOR-NEXT
During the day, I am a Programmer Analyst Consultant and I work on an IBM clone. I must say that after working 8+ hours on this clone and then coming home to work on my trusty C128D is quite a contrast. MS-DOS is a powerful operating system, but it is cold (sort of 'blue'), cryptic, unfriendly, and NOT FUN. I like to have fun and my Commodore computer provides it.

The four BASIC Food Groups, in my opinion, are: PRINT, GOTO, FOR-NEXT and INPUT. There are many more BASIC commands of course, but these four are great ones to get your feet wet with.

The PRINT Command

In review of the very useful PRINT command, at the bottom of the page is a condensed list of its most common uses. In trying these PRINT examples from DIRECT MODE, just type them as listed and press <RETURN> after each one to execute them. As we progress into BASIC programming, you can incorporate these examples into your programs as well.

```
REMark: When you see < > around a key word, this
means to press that key, i.e. <RETURN>. When you
see key words inside of [ ], it means to press the
key/keys indicated while inside Quote Mode, i.e.
[2 <SHIFT><Q>,4 <SPACES>,<C=><B>]. The numbers
preceding these commands indicate the number of
times you enter that particular key combination.
```

The GOTO Command

In executing or running a BASIC program, the computer starts interpreting at the lowest line number and continues line by line to the highest or last line number. The GOTO command tells the computer to break out of this pattern and GO TO another location in the program. A simple example of this would be:

```
10 PRINT "REPEAT FOREVER"
20 GOTO 10
30 END
```

This little program will rapidly display REPEAT FOREVER in a vertical column over and over again. Line 30 will never get executed. Type it into your computer pressing <RETURN> after entering each line then type RUN and press <RETURN>. Press <RUN/STOP> to stop the program. For a variation of how the computer displays this message, let's put a semicolon at the end of line 10.

```
10 PRINT "REPEAT FOREVER";
20 GOTO 10
30 END
```

To do this you can retype line 10 which will overlay the existing line of code or you can utilize Commodore's on-screen editor. LIST the program, cursor up to line 10, cursor over to the end and type a semicolon, and press <RETURN>. The cursor will be on line 20 which stays the same. Now move the cursor below line 20, type RUN, and press <RETURN>. The text, REPEAT FOREVER will be displayed across the screen still at a very rapid rate. Again, press <RUN/STOP> to stop the program.

Time Delays With FOR-NEXT Loops

To make this graphic display a little more visually presentable we will add a line of code using a FOR-NEXT loop. FOR-NEXT loops allow us to do two things: repeat actions

---

```
Examples of the PRINT Command

Clear/erase the screen          ———————→  PRINT"[SHIFT<CLR/HOME>]" / PRINT "♥"
Move the cursor 'Home'          ———————→  PRINT"[<HOME>]"
PRINT blank lines/rows          ———————→  PRINT: PRINT: PRINT
Change character colors         ———————→  PRINT"[<CTRL><1 through 8>]"
                                          PRINT"[<C=><1 through 8>]"
Display reverse characters      ———————→  PRINT"[<CTRL><RVS ON>]REVERSE[,CTRL><RVS OFF>]"
                                          PRINT"[<R>]REVERSE[<■>]"
Display graphics - left side    ———————→  PRINT"[<C=><A through Z>]"
Display graphics - right side   ———————→  PRINT"[<SHIFT>A through Z>]"
Display messages/text           ———————→  PRINT"YOUR MESSAGE HERE"
Calculate numbers               ———————→  PRINT (10/2)+(5*15)-32
Calculate and PRINT variables   ———————→  Z=(500-164): PRINT Z
                                          X=450: Y=274: PRINT X+Y+39
Controlling position on the screen ————→  PRINT TAB(134)"HERE I AM"
Use with cursor movement keys   ———————→  PRINT"[3<RIGHT>4<DOWN>HERE IT IS"
Use with SPC and TAB commands    ——————→  PRINT SPC(20)"WHERE ARE YOU"
```

and create time delays. A time delay may be used to slow down a function in the program. For example, printing a message and leaving it on the screen for a few seconds, like in the above program. Type in the following line of BASIC code and press <RETURN>.

```
15 FOR T=1 TO 500:NEXT
```

Now type LIST and press <RETURN> to redisplay the whole program with this new line of code on your screen. It should look like this:

```
10 PRINT "REPEAT FOREVER";
15 FOR T=1 TO 500:NEXT
20 GOTO 10
30 END
```

Notice that line 15 has been properly inserted between lines 10 and 20. Now type RUN and press <RETURN> to execute the program. Notice the difference in display speed? Press <RUN/STOP> to stop the program. Now let's look at line 15 closely to understand what is happening. The FOR-NEXT time delay loop tells the computer to stop where it is and count to a number of your choice before it continues on its merry way to execute the remainder of the program.

In this FOR-NEXT loop, T is a variable we are setting to 1 with the condition of a range to 500. NEXT instructs the computer to return to the FOR and increment the variable until the condition is satisfied. I chose the letter T to stand for Time, but any other letter can be used. The number 500 can be increased to lengthen the time of delay or shortened to decrease the time of delay. Try it with 1000 and 100 and RUN the program to observe the results.

Now let's clear the screen and make two messages that flash on and off. Type NEW, press <RETURN>, and enter the following code, exactly as written (the colons in front will serve a later purpose, honest):

```
10 :PRINT "[<SHIFT><CLR>]BASIC PROGRAMMING"
20 :PRINT "[<SHIFT><CLR>]IS FOR THE BIRDS"
30 GOTO 10
40 END
```

Type RUN and press <RETURN> and watch the text fly by. Press <RUN/STOP> to stop the program. Let's slow it down to a readable speed. To do this we will need two FOR-NEXT delay loops because there two PRINT statements. Type LIST and press <RETURN> to display the program on the screen and enter the following lines below the listed code, pressing <RETURN> after each line.

```
15 :FOR T=1 TO 700:NEXT
25 :FOR T=1 TO 700:NEXT
```

Type LIST and press <RETURN> to list the program again and these two lines will now be part of the program. A shortcut to typing would be to type line 15 in and press <RETURN>, then cursor up to line 15 and change the number 15 to 25 and press <RETURN>. Now LIST the

program on the screen again. The program should look like this:

```
10 :PRINT "[<SHIFT><CLR>]BASIC PROGRAMMING"
15 :FOR T=1 TO 700:NEXT
20 :PRINT "[<SHIFT><CLR>]IS FOR THE BIRDS"
25 :FOR T=1 TO 700:NEXT
30 GOTO 10
35 END
```

Type RUN and press <RETURN> and you will see the program run a little slower and the text is now readable. To make this program display the text ten times and stop, let's add a FOR-NEXT repeating action loop.

Repeating Actions With FOR-NEXT Loops
The next and maybe most useful function of the FOR-NEXT loop is the ability to control the repeating of actions in BASIC programs. The concept is this: put the FOR part of the loop in front of the action and put the NEXT part at the end of the action, like this:
FOR X=1 to 10:(action to be performed 10 times):NEXT.
Utilizing this technique, the computer is counting again and will repeat all of the BASIC code in between the FOR part of the loop and the last NEXT ten times. X, of course, is another variable and may be set to any value you want. I suggest that for multiple occurrences of FOR-NEXT repeat action loops in BASIC programs, it is best to use different variables in each loop. As programmers, we should keep tack of these things or they will raise hell later on. More on structured programming later. Type the following line in and press <RETURN>. Then LIST the program and edit line 35 to change the GOTO 10 to NEXT. Remember to press <RETURN> after the edit.

```
5 FOR X=1 TO 10
```

LIST the program again and it should look like this:

```
5 FOR X=1 TO 10
10 :PRINT "[<SHIFT><CLR>]BASIC PROGRAMMING"
15 :FOR T=1 TO 700:NEXT
20 :PRINT "[<SHIFT><CLR>]IS FOR THE BIRDS"
25 :FOR T=1 TO 700:NEXT
30 NEXT
35 END
```

RUN the program and watch the display occur ten times and then stop. Yes, there are two FOR-NEXT loops within a FOR-NEXT loop and that is perfectly fine. You can use this technique for graphics, sound effects, and other programming actions. My colons in front of lines 10 through 30 are for visual documentation purposes. This way you can SEE all of the code being executed by the FOR-NEXT repeat action loop.

Next month we'll continue the four BAISC food groups with the INPUT statement.

READY.
∎

Hooking Up to Log On

Brian L Crosthwaite

This month we're going to take a look at hooking up your modem, the first step for anyone wishing to infiltrate the invisible world of BBSs and tele-electronic transacting.

If you buy a new modem, you should follow the owners manual for specific instructions on set up and usage. If you find one second hand, chances are about 50/50 that you will not get any instuctions. Let's look at the **commodore** modems.
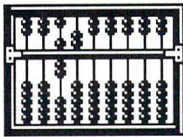
Model 1600
or
VICMODEM, the Telephone Interface Cartrage.

The Model 1600, also known as the VICMODEM was one of the first modems available for the VIC20 and C64. For this particular modem, you need a telephone with a that you can unplug the handset. The dial must be on the base unit in order to dial the modem, much like earlier phones of the late 70s, to mid 80s. If you don't have what may have been considered at one time, a conventional phone, check out Radio Shack. You will know if your phone works after trying the following.

Unplug the cord that plugs into the handset (the part you talk and listen to). Plug that wire into the female receptical shaped just like the one on the handset, found on the right end of the modem when looking at the words "VICMODEM" horizontally.

Next, with the computer off, plug the modem into the user port found on the left rear (looking over the top of your computer). If you have a Plus/4 it is the right slot in the center (viewed the same way). Make sure you have a secure connection.

Set the answer/originate (A/O) switch to "O" to dial out. Keep the handset on the hook until you are ready to place your call. A modem of this type (or one with an accustic coupler) is necessary for the VIC since its tone generator cannot match true cross-tones very well.

The Accustic Coupler

Modems made for PET/CBM machines are of the accustic coupler (AC) variaty. Most AC modems hook up to the computer in much the same way. The user port is the port with the flat exposed PC board with the two notches next to the power input. I don't have any hard facts on this one.

1660-1670

The 1660 and 1670 modems have a little different set up since they can encorporate either a telephone to dial or utilize the SID chip found in the C64 and C128. They both hook up the same, only one is a 1200 baud (1670) and the other a 300 baud (1660).

To hook these modems up start by placing the modem into the user port (see above for discription). If you have a monitor use the splitter cable, you do have the splitter cable don't you? If not, don't panic -- all you need is a "Y" cable with one male RCA and two female RCAs. The splitter's male end plugs into the sound-in on the back of the 40 column monitor. One of the female ends plugs into the monitor cable's sound out acting like an extention. The other female end plugs into the cable that came with your computer to hook up a TV as a monitor. You saved that cable didn't

PAPSAW
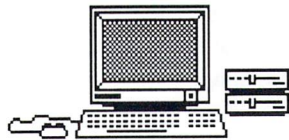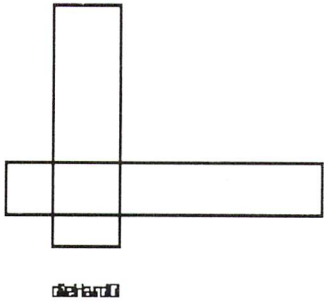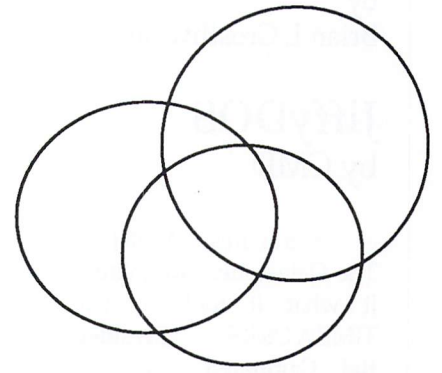
MODEMS

you? Of course you did, you use it as a dubbing cable from you VCR to your camcorder.) All it is is a patch cable with RCA males at both ends. The other end plugs into the back of the modem.

If you use a TV as a monitor you will need to plug the cable that has a 8 pin din plug into the monitor-out on the back of your computer, and an RCA male on the other end into the back of the modem. If you don't have that plug, you can use a monitor cable. Just plug in the cable into the monitor-out on the back of your machine and plug the sound wire (usially the white wire) into the modem. You may want to put electrical tape on the remaining connectors to ensure they don't short anything out.

Lastly the telephone line plugs into the modem in the jack labeled "Line." If you have a VIC20 you will need to plug a phone into the jack labeled "Phone."

This allows you to dial out with the phone. Some of the old terminal programs will expect this set up. This set up also allows you to have a phone hooked up on this line. It will function like a normal phone, as long as you are set up correctly and everything works right. My computer here at work is set up in this manner.

One last thing about the 1660. There is a switch on the left side of the modem. This is the answer/originate switch. The best thing to do is leave it in "O" so it will not answer your phone when you do not want it to. However, if you are expecting a call set it to "A."

READY.
■
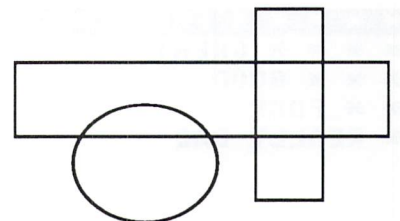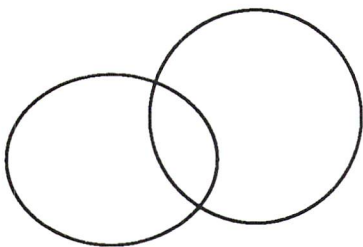
REVIEW!

by
Brian L Crosthwaite

JiffyDOS
by CMD

6 minutes. A lifetime. The Datassette. Six minutes it what it took to load TIMEWORKS' **Presidential Campaign**. One of the very first commercial programs I ever saw. I ever loaded.

Enter the 1541 drive. One minute -- twenty-nine seconds. What a difference. I have five more minutes I can dedicate to actual game play.

Now, the 1541 is the most reliable drive (along with the fixed ROM version of the 1581) drive that Commodore ever produced since the 4040. But let's face it, it's slow.

Aye, there's the rub. In the 90's, why should you not move on. A stock C64 with a stalk 1541 is the slowest thing on earth. Even an old 8088 (IBM) with DOS 2.0 loads files faster.

The solution?

JiffyDOS. Jiffy-DOS is a completely new set of enhanced ROM chips for your C64 or C128 and your disk drives. And not just Commodore disk drives, **JiffyDOS** ROMs are available for a wide variety of drives: 1541, 1541C, 1541 II, 1571, 1581, FSD-1 & 2, Excelerator+, Excel 2001, OC-118, MSD-1, MSD-2, Enhancer 2000, BCD/5.25, BCD/128, RF 501C, RF512C, FD-168, SW71, Indus GT, and CSD-1. JiffyDOS is available for the C64, 64C, SX64, C128, and C128D.

JiffyDOS, as you can see, covers just about every system you could come up with. **JiffyDOS** loaded my file in 22.15 seconds. **JiffyDOS** offers users something that usually comes at a higher price. **JiffyDOS** gives the user more time. Less time accessing disks disks reading and writing means that in the course of one hour you gain two thirds of the time normally spent accessing your disk drive for one thing or another. That's well over 45 minutes of time to write, edit, play, enjoy.

*But why would you want to buy JiffyDOS when you could have the **Final Cartridge** or the **Super Snapshot**?*

Compatibility. **Jiffy-DOS** works as well as any of my fast load cartridges. In fact, I found that it loaded just a little bit faster than my fastest -- the **Super Snapshot V5**. It did not black any screens out and worked on programs that wouldn't load with the cartridges. **JiffyDOS** can't do any screen saves or backup memory resident programs, but it will allow the cartridges to do their thing.

The **DOS Wedge 5.0** is built right into **JiffyDOS**, so fans of this time tested DOS will never again have to load the **Wedge** from disk again since it is right there upon power-up every time.

JiffyDOS even has its own command structure set up like the **DOS Wedge**. For instance, to format a disk with the wedge you enter: @N:diskname,xx. To list a program from disk to the screen (without loading it into memory) using the **JiffyDOS** command you would enter: @D:filename.

JiffyDOS is even disabled the same way as the Wedge: @Q.

Additional commands allow you to disable the 1541 head rattle, Un-NEW a program, and list an ASCII file (SEQ or PRG) to screen or printer, to name a few.

There are copy commands to copy one or multiple files between disk drives. Copying multiple files from drive 8 to drive 9 is as easy as this:

1) ?$ <RETURN> loads a directory into memory; 2) @X9 <RETURN> sets the destination drive to 9; 3) list the directory in memory and place an asterisk before the opening quote of the files you want to copy and press <RETURN>; and 4) RUN

JiffyDOS
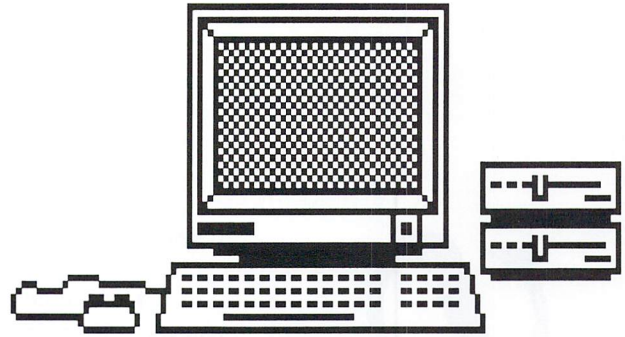
<RETURN> will copy the files marked by the asterisks from the default disk (8) to drive 9.

You can even program using these commands to write you own costomized DOS programs (some commands have variations when used to program, such as filenames are in quotes).

JiffyDOS sometimes appears to have no effect.

In this case there are a couple things you can do. Copying files with **JiffyDOS** will set the interleave (the distance between consecutive sectors of a file) and the file will usually load faster.

Or you can manually set the interleave with the gapsize command: @Gsize, where size is a number from 0 to 16.

What if it doesn't work with certain programs?

JiffyDOS can be turned off before power up by a toggle switch that you mount in the case of your computer. Some programs may not boot properly and **JiffyDOS** may need to be disabled. On the other hand a given program may not load with **JiffyDOS**, but it's files may load faster with **JiffyDOS**. After the main program is up and running, **JiffyDOS** can be brought back in on the fly to accommodate the fast load for data files and subsequent

modules the main program may load.

All that soldering and rewiring...

Actually to install **JiffyDOS** it only takes about a half hour or so. Some ROM Kernels on some machines may be soldered in place and will require unsoldering. This would be a good time to place a chip socket in so you can service you computer more easily in the future, and not risk frying your new Kernel.

You don't need any special tools, although I recommend a chip puller even though for the past ten years I've been using a small screw driver. You will also have to drill a whole in your computer's casing for the toggle switch.

If this sound like too much like "Home Improvement," you might want to leave installation to your favorite **commodore** tech person. But even if you have never done anything like this you may be surprised at how easy it is. The instructions provided by CMD are easy to follow, very clear and very thorough.

I give **JiffyDOS** a:

✷ ✷ ✷ ✷ ✷

READY.

■
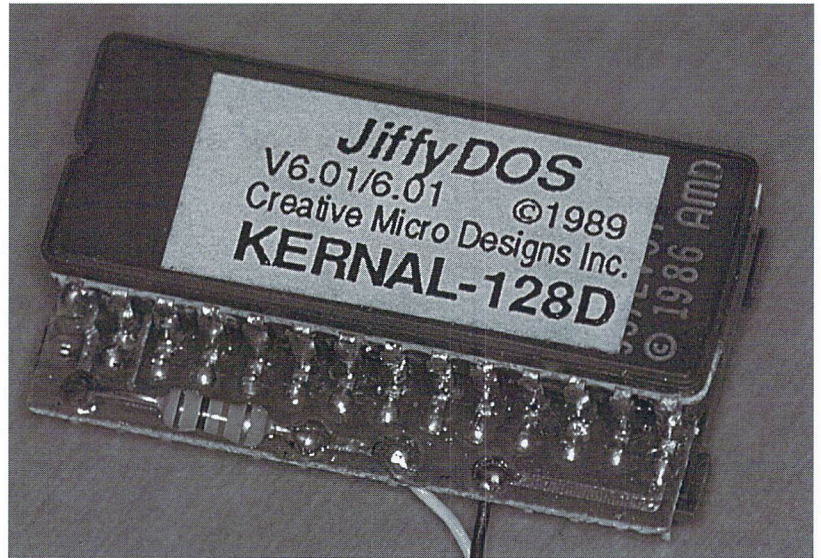
JiffyDOS will give you the edge of speed to be competitive with today's computers. JiffyDOS is availble from Creative Micro Designs (see ad on page 14 for more information).

✳ ✳ ✳ ✳ ✳

Rarities

with Brian L Crosthwaite

This month there is some great news. There are several new (new to us) 8bit supporters that have lately appeared before us. It's so nice to see these companies emerge from the woodwork. Some have remainded hidden from view and this month -- **dieHard** exposes them!

This first one is Tech Star. Tech Star supports everything from the VIC20 to the C128D. They also support all Amigas. By support, I mean everything. They do repair work, sell software and sell hardware. They have a rather large selection of VIC20 games and productivity. Tech Star's address is:

Tech Star
7036 S 188 St
Kent, WA 98032
(206) 251-9040

The next wonder for the **commodore** world is Kasara Microsystems. They can get parts and accesorits for C64, C128 and the Commodore PC, as well as the Amiga. They carry a good selection of software and they do repairs. They also offer costomers a technical support line. Their address is:

Kasara Microsystems
21-G Airport Rd
Hilton Head Is, SC 19926
(800) 248-2983

Powerdisk is another source for Commodore 64 software :

Powerdisk
6813 Lotus Way
West Jordon, UT 84084
(801) 969-4330

The Computer Bargain Store sells hardware, software and accessories for the VIC20, C16, Plus/4, C64, and C128. They also carry Amiga, IBM, Apple, and Mac items.

Computer Bargain Store
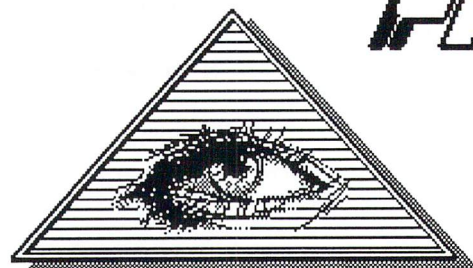3366 South 2300 East
Salt Lake City, Utah 84109
(801) 466-8084

Need a PD source? Try Basic Fundamentals Company. They feature C64 and C128 Public Domain and Shareware programs. $5 will get you a list and sample disk containing 20 programs. Write:

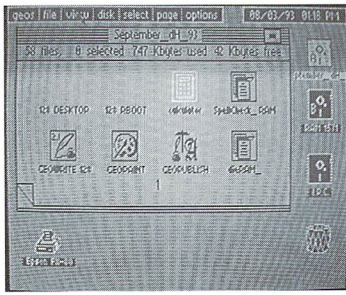Basic Fundamentals Company
2235 E. Marie Ave.
Salt Lake City, Utah 84109

READY.
■

the Mental bObus

R - E - where?!?!!?
GEOS

So you've highlighted a bunch of files on your work disk to copy into the REU -- but you screwed up, the REU is still drive "C." No problem, just move them to the border, swap the REU in, reopen your work disk and type <C=><Y>. Now click on one of the files and move its ghost icon over to the REU to continue where you left off.

Alterations operations
geoPublish/geoWrite

When changing the page format and font for publishing and letter writing here is a small time saver. Highlight the page to be changed (<C=><V>). If the font you want is going to be larger than the one you already have change the formatting first (left, center, full, right, margins, paragraph). Then choose the font. If you want to increase line spacing do that last. That way you can see more of the other changes in the visible window.

If the font is to be smaller than the old font, change the font first. If the line spacing is to be decreased then also do that. This will put more on your page. To effect all text on the new page, click the mouse once and then rehighlight the entire page again. Now make the changes to the justification and margins.

The Ghostly Scroll
GEOS

My mouse used to be possessed by an unknown force. It would bounce up and down and side to side. I'd be typing and my text would start scrolling by itself! There was no control over the boxes used in **geoPublish**. I had to shoot and miss over and over until by fate alone, I just happened to either get it right or get it close enough. When scrolling the **geoPaint** screen, the thing would jump a mile and I could never place the window where I wanted it. This was within **GEOS128 2.0**. My C64 version didn't do this.

"Ah, it's just one of those funky 128 things..." I thought to myself. But you know, my C128D *never* did any of those funky 128 things. It has been amazingly fault free. ...with the exception of this.

Ok, enough is enough, I unplugged *everything* and rebooted **GEOS**. It stopped!! Well it turned out to be my joystick that is plugged into port 2. I plugged everything back in with the exception of the joystick and every thing is hunkydori.

Since this machine is pretty much exclusively my work machine, it's no big deal to just unplug the thing. **GEOS** stays up on this machine for weeks on end -- and it's so nice not to have the **Ghostly Scroll**!!!
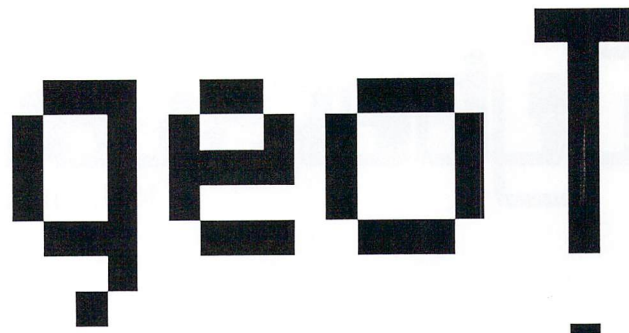
Powering Down The Drive
GEOS64

Back when I used **GEOS64** just about every day, I wanted a way to leave my computer on and turn my drive off to prevent over heating. At first I just tried turning off my drive. Then I just turned it back on and tried to do something in **GEOS** and the system would crash.

Then I thought I could just remove the drive from configure, power it off when prompted to do so. I could leave the computer in configure and just turn off the monitor until later. Then when I wanted to work, I'd just reconfigure the drive back in. This worked most times, but was not entirely reliable.

Now, several years later, the obvious hits me dead in the face. Simply choose BASIC under the options menu on the **DESKTOP**. After the blue screen appears, I can turn off everything, except the computer and come back later when I am ready to continue. To get back to work all I have to do is power up my printer, drive(s) and monitor then tap <RESTORE> and in a brief moment **GEOS64** is back up fully configured, ready to go.

Quit to desktop
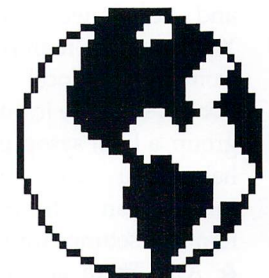
Cyberspace Cowboy

R. J. Smulkowski

Well, yes... where to begin? I guess at the beginning. Welcome to a new column, called **Cyberspace Cowboy**.

Just what is this "cyberspace"? And where is it? Well, cyberspace is sort of an intangible concept in many ways, it occupies no physical space and has no physical mass. But it is very real to millions of people who have discovered the worlds of information and entertainment that await them there. When you are having a telephone conversation with a friend you are both meeting in cyberspace. You are together in a virtual common place -- a place which is neither your living room nor your friend's -- it is somewhere else that you are together, out there where there was a void until one of you answered the other's call. You are laughing and joking, sharing of yourselves and your friendship in cyberspace, rather than the corner pub or coffee house.

I would like to cover the more personal side of telecommunications in my column rather than the "nuts and bolts" technical side. Your modem manual, texts from the local public library, someone in your user group, a local sysop, etc., can help you with modem initialization strings and terminal settings (or write **Q & A**). There are so many possible combinations of hardware and software.

Cyberspace is peopled by so many colorful characters with so much to offer that I feel it would be more worthwhile to devote the ink to the fun side of the hobby rather than the "techie" side.

Where can you go and what can you do in cyberspace? You are the only limiting factor. Where do you want to go and what do you want to do is a more apt question.

On local BBSs (bulletin board systems) you can send and receive private electronic mail, post and read public messages (which often turn into rather involved current events-oriented debates), upload software to and download software from the host system, read informative and/or entertaining texts, and play games. Different BBSs have different and distinct personalities, which often reflect the lifestyle and values of the system operator. In my local dialing area, there are boards devoted to political debate, religious discussion and study, employment opportunities, computer programming, organic gardening, role-playing games, and automobile racing. Chances are that there is a BBS local to you which specializes in your particular area of interest.

If the local BBS scene isn't enough for you, there are always the national subscription services such as CompuServe, Delphi, Genie, and Quantum Link. There you can meet with many people from virtually all around the world. If even the national forum isn't enough, try exploring the Internet. It's inexpensive if you do it right, and you will never, ever see all that the Internet has to offer. It is internatonal.

I personally am partial to the Delphi online service. The price is right when you choose the 20/20 plan (20 dollars monthly for 20 hours connect time, $1.80 for each additional hour; these rates are for most of the services offered on Delphi including E-Mail and downloading) and Delphi allows you to connect directly through their bank of VAX computers to many Internet sites. The additional charge for Internet access is $3.00 per month and there are no added charges until you transfer over 10 Megs of files from remote Internet sites to your Delphi address. Delphi hosts a **commodore** conference every Friday night at 9:00 pm eastern time, and I am usually there. Look for username MOJOED if you decide to drop in. My Internet address is MOJOED@delphi.com. The newest and most exciting news in the **commodore** area on Delphi is that soon we will be able to connect directly through the **commodore** area to selected sites overseas which have areas specifically for **commodore** files. Anyone who has seen some of the goodies from Europe will understand why this is so exciting.

Well, I've probably rambled enough in this introductory column, so I'll close with a few thoughts on possible future columns. I'm just starting to explore the Internet myself. Maybe you, the readers, would like to follow along with me in this adventure. Or maybe you would like to see a column written more from a SysOp's point of view. Perhaps you would like to see detailed descriptions of the features of some of the terminal software available for our machines. Or an in-depth discussion of Delphi. I welcome any and all feedback, just write me at dieHard, ATTN: R. J. Smulkowski, P O Box 392, Boise, ID, 83701-0392.

R. J. is known to his friends as Ski, and edits Mojo Mag. He has been known online as Magoo, Magoomba Man, Space Duck, and Richard Nixon. He shares a home in rural Olympia WA with an understanding wife, a fine teenage son, assorted ducks, chickens, geese and exotic pigeons, and has operated a **commodore** bulletin board system (the Ju-Ju Board, 1-206-866-0983, 300 / 1200 / 2400 bps) for nearly four years.

READY.

■

a new art?

Roger Gouin

I have been a C64 owner since it came out on the market 10 years ago and I have used lots of "entertainment" software written for it. Many reviews given by the specialized press looked at this software mainly for its innovative technological aspect and game

worth, not enough, in my judgment, for its human and artistic contents. Is this because this new medium cannot produce art?

I have many objections to considering any of the available software really artistic in the traditional sense of ART.

My strongest objection comes from the fact that in graphically advanced products the human player is too often facing a graphically detailed ROBOT, alas not a Mr Data of **Star Trek** fame... It is merely an automaton as you can find at Disneyland... And this is not due to the limitations of my 8-bit machine.

For example, "Rodney" in **Ski Or Die** from Electronic Arts gave me goose pimples as he answered canned answers according to the location of the joystick pointer. The fun in the answers only lasts once! And this happens in all versions of the game, including 16-bit ones.

Real software artists must make the user forget he is in a mechanical world. (That's the work of an ARTIST by definition !) He must enter variable elements that bring life into their subjects... or at least a closer imitation of life.

This was the biggest reproach I had to make to the **ZORK** series by INFOCOM. As an example, in **ZORK II** you are encountering an eerie carousel. No matter what you did, the appearing characters were always at the same place. The very strong feeling to play with automatons gave a weird atmosphere to these games. On the other hand, in **ZORK I**, you had to deal with a THIEF that was showing up at random and you really felt a "presence" around you.

The shortcomings of the program were somewhat overcome by the user's imagination as there were no graphics to support the story. But these defects become more and more obvious as the graphical technology improves and less of the human imagination is asked to be used. In other words, since we have such a good picture of Mr DATA, we demand a corresponding behavior!

In fact, this programming shortfall is the main

reason I stuck to the C-64. 16-bit machines can only deliver more detailed graphics but not more sophisticated programming. You have in fact reached the limit of "linear" devices in the C-64. In order to do better, you really need associative processors or in other words -- artificial intelligence. And nobody has produced such a device yet !

A good example of this situation is **Stellar 7** (by Dynamix). The release for the Amiga is just a stunning graphical work, no more. I prefer by far my old **Stellar 7** from Penguin Software as it leaves me plenty of room for my imagination (wire 3-D graphics have that property).

Another example is the large set of role-playing games such as the **Ultima** Series by Origin Software and **Advanced Dungeon & Dragons** by SSI. There is always only one way to end the adventure, and once it is ended you are only left with the desire to resell your software.

In order to truly "invent new worlds", to quote the Origin logo, you must bring the human

element, make the villain think! The villain in **Ultima** can only be defeated one way, no matter which **Ultima** you go through (including **Ultima VII** just released for IBM). Make him instead act according to what you do, such as finding certain clues, make him move to other locations, find situations where you meet him but not finish him. Let *him* imagine! That way, you could restart the entire adventure and have an entirely new experience (closer to Holodecks).

And please at least make your automatons refuse to answer more than twice the same question or make them give me a sarcastic answer then!

It has been always the fate of the Artist to know the limitations of his medium and to spend his life overcoming it, be it in literature or in painting. In the medium of interactive electronic artwork, the Artist will not be helped by having more graphic capabilities, only improving his techniques of programming will.

READY.

■

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Archaic Computer

The Computer Store Of The Past

...there were quite literally thousands of sources for commdore stuff.

Welcome to the computer-yesteryear. Hold on as we set the time machine back to the heyday of **commodore** computers. A time when department stores carried several brands of computers and competition was tough.

1985, Scott Adams was working on a new series -- **Questprobe**, a graphics adventure series based on the Marvel comic books. Commodore teased us with the proposed release of the Commodore LCD Lap Computer. Mindscape had a BBS specifically for clues to the **Indiana Jones in the Lost Kingdom** adventure game. Commodore was the official computer company for the Young Astronauts Program. The Amiga was now on the scene. SX64s were still available in abundant quantities from mail order houses. And there were quite literally thousands of sources for **commodore** stuff. Things were cherry.

Fast load cartridges and utility cartridges were everywhere. FASTLOAD, Turbo Load & Save, Mach5 were some of the big names for fast loaders. Simons' BASIC, Super Expander 20/64 and Partner 64/128 were just a few of the utility cartridges that were around. The Partner was a new one on the scene. With the ability to leave whatever program you were working on, check your calendar, type a memo, and then return back to the original program and pick up were you left off, the Partner was indeed a unique item.

I'd never heard of a 64 version of this cartridge. I had seen ads for the 128 version and had considered ordering it, but, I never quite got around to it. Then one day I received a phone call from Dwaine Smith of **powerdisk**. He spoke of a marvel that may be of interest to those who dare look back.

This month The Computer Store Of The Past takes you to that year -- 1985 for a look at the Partner 64.

Partner 64

by TIMEWORKS
1985

✻ ✻ ✻ GREAT

Reviewed by -- BLC a.k.a. the ghost of **commodore** past...

Well, I must admit, during the heyday of the computer revolution, much hardware escaped me. Including this one. The Partner is a cartridge that plugs into your C64's cartridge port. It has a large button on the front/top of the cartridge. At the touch of this button you can zip out of any program you are running and look up a phone number, check your appiontment calender, or do some arithmetic. All from within one cartridge!

If you have a cartridge port expansion card, you can just plug it in the front slot and you're be ready to go. If you don't have an expansion, you can plug the cartridge in after you place the rubber foot on the back side. The rubber foot just sticks on with a self adhesive backing and holds the cartridge level. In case you get a little enthusiastic when pressing the button, you won't have to worry about the cartridge moving and coming unplugged.

Set up is easy from the completely menu driven system. A set of default values are in place with the exception of the modem's setting. Modem? Yes, modem. You can have a database of all your friends, relatives, and/or business

connections and the Partner will dial the phone number for you.

Desk accessories include an appointment calendar, a memo pad, address list, phone list and calculator. There is a fast loader called *Swiftload* that loads programs 5 times their normal speed, and in case you have a fussy program, you can disable it as easy as hitting <RUN/STOP> <RESTORE>. Anytime you enter the Partner *Swiftload* will be turned back on. There is also a screen dump feature that will dump any TEXT screen to the printer that was displayed prior to entering the Partner.

Important Dates

Let's look at the calendar. The display defaults to January 1987 the first time you enter the Partner after powering up. This would not be so bad if you could simply load the current month from the disk and it would update to the new calendar. However things work a little different than that. You can advance the calendar by pressing <+> or <f2> and back by <-> or <f8>. The symbols advance by one month and the f-keys increment by 6 months. To load a current calendar you have to be in that calendar for the year you want. The Partner will take over from there, just press <f3> and the Partner will ask "Load September 1993? (Y/N)." The notepad has the ability to list the directory and press <RETURN> when you see the file you want. This would have been a nice feature for the calendar, since this would have been an obvious heavy use item. If you leave the computer on, the Partner will remember what month you looked at even though the information inside may have been over-written. However, this is not always possible, since the Partner is a cartridge and some programs will crash.

You can save the contents of a calendar from within the calendar. You can also save the contents when you enter another application. The Partner will ask if you want to save the current calendar.

Calendars can be printed as well. You can print the calendar shown, the current day with the events, the week's events or all daily information for an entire month.

You can cursor around the calendar and select a day to see your key tasks, a to do list, and appointments. There are full screen editing capabilities. You can move the cursor anywhere on the text area and over-type existing text. You can transfer the text from the last calender entry to the present one with the touch of a key.

There are only five lines for enteries under key tasks, and the to do list, however if you keep it short you can list 10 or 15 items for one day. The appointments have 6 lines and may be a bit constraining for some. That's where the note pad comes in. Just
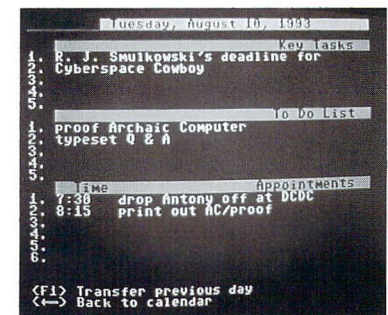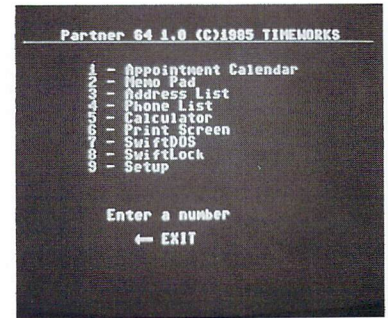
place a reminder on a certain day to look at a note pad file of your choosing and you're all set.
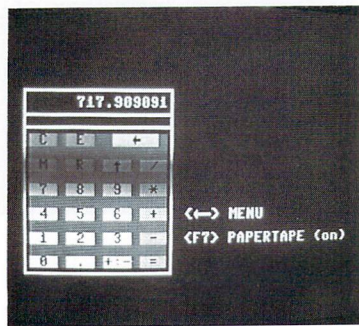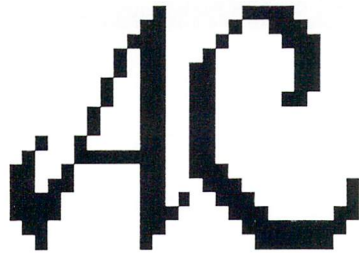
Notes and Such

The note pad can have as many notes as you can fit on a disk. (This is true of calendars, address lists, etc, as well.) You can use this as a mini-word processor or a type-writer. In the note pad mode I fill up 255 lines by 40 columns of text with junk to see how I could put on. It started over and said I was at line 9 or so, but it didn't loop the text back. I was able to continue to add text. The amount of text is limited only by how much space is left in memory (if you have another program running this may be less).

In type-writer mode you can send lines directly to the printer making simple memos a breeze.

There is even a search feature. The memo pad files are standard sequential files, so if you have a spell checker that works on sequential files, you've got one heck of a set up. One capability I liked was the note pad's ability to read PRG type text files into memory.

Addresses

The address list is a nice feature that allows you to enter names and addresses in any order. You can then press <f4> and the entire list will be quickly alphabetized. You can print

mailing labels from this area as well as just print out the list. You can search for a name, number address or any other field. Unfortunately this feature is lacking when it comes to practicality. It only accepts 15 characters or less and accepts no wild cards. This means that if you are looking for a name whose entry is over 15 characters you'll just have to scan the file using the cursor keys. One way around this is to place a single letter as an entire entry -- a through z, then just search for the letter where you know the name to be and cursor from there.

The names are alphabetized by the first field, which can be good or not so good. If I have a list of readers of a newsletter I could put last name first, but this will be the way they appear on the label.

The address list will also let your modem dial the number for you.

Phone Numbers

One thing I felt they could have left out was the phone list. It has the same features as the address list including the auto-dialer, but it only has fields for Name, Phone, and Memo and you can't transfer information from one to the other.

Calculations

The calculator is a nice feature that allows you to do simple

equations like addition, subtraction, multiplication and division. You can raise powers, and change a value's sign. There is even a memory feature. You can use your printer as a paper tape complete with paper feed.

Disk Operations

DOS and printer commands are easy with the Partner. Just select the SwiftDOS option from the main menu. Commands are entered via a command line. New, Copy, Rename, Scratch, Initialize, and Validate are listed on the screen showing the proper syntax of each.

Printer commands can be entered from the command line as well. If you are in an application and you want to send a printer command like bold or NLQ and your application will not allow it, just switch in the Partner and send the command and pop right back.

Documentation

The manual is very informative and well written. From getting started, to usage and finally a reference section. There is a trouble-shooting section and even an index (and we all know how much I like indexes).

In Conclusion

Although there will be incompatibilities with some programs, this cartridge may prove to be a godsend to some. The only major draw back, I felt, was the calendar's inability to load a calendar from the directory and automaticly set up on the most recent calendar. Its ease of use and its exceptional convenience make the Partner an exceptional buy at $17. I give this one:

✱ ✱ ✱ ✱

The Partner 64 is available from **powerdisk**, 6813 Lotus Way, West Jordan, UT, 84084, (801) 969-4330 for $17 plus $3 postage.

READY.

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Q&A
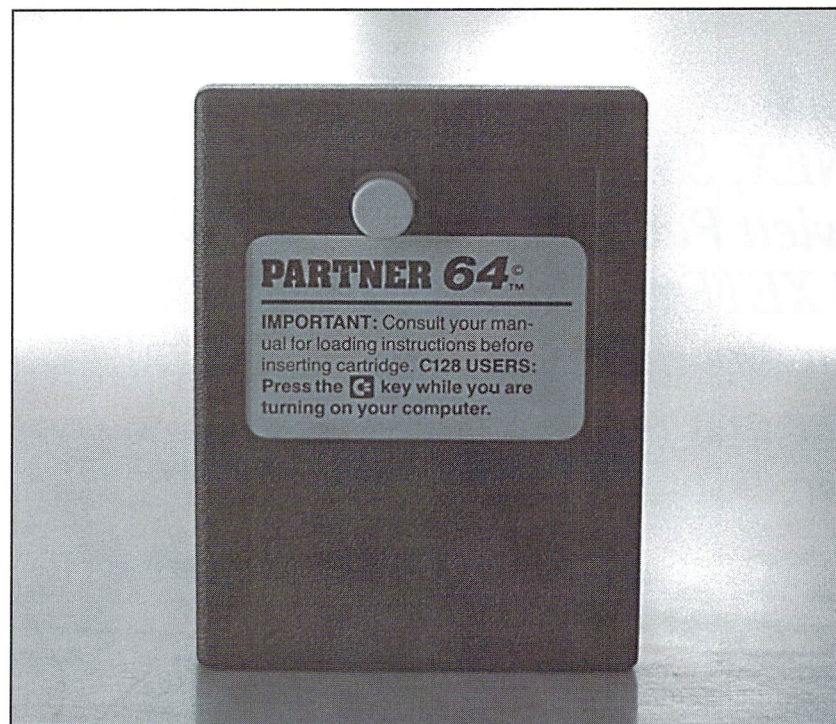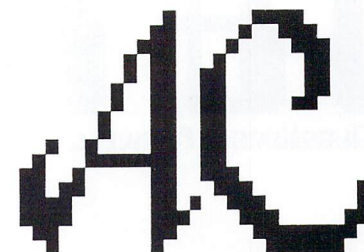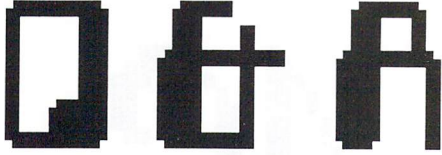
Questions & Answers

"I called TENEX, SSI, Hewlett Packard, and XETEC prior to buying the Laser and the Xetec."

Q: In the **Word-Master 93** program, you are referred to lines 2080-2087 to change to fit your printer. My printer is a MPS-801 by Commodore. I haven't had much luck with the changes to make f5, f6 underling on/off or to change f7 and f8 from italics on/off to bold on/off. Maybe you can help.

The following is a table of CHR$ codes for the MPS-801: CHR$(18) - Enter Graphic Mode, CHR$ (10) - Line feed after printing, CHR$(13) - Carriage return, CHR$(14) - Enter double width character mode, CHR$(15) - Enter standard character mode, CHR$(16) - Tab setting the print head (how does this work?), CHR$(17) - Enter cursor down mode, CHR$(18) - Start reverse field, CHR$(26) - Repeat graphics selected, CHR$(27) - Specify dot address (must follow print head tab code)(what does this do?), CHR$(145) - Enter cursor up mode, and CHR$(146) - Turns off reverse field. -- Marcus Krejci of Rural Retreat, Virginia

A: The MSP 801 printer is incapable of producing boldface type, itaics or underling.

CHR$(16)n is the format. When you want to print, say 10 spaces before you print text, you can send this command to the printer: PRINT#4, CHR$ (16) 10 "HI."

To use the CHR$(17)n command, you need to also use CHR$(16) with hi-bit and low-bit (nH = INT (n / 256) : nL = n - nH * 256) where n is a dot from 0 through 639 where

printing will start.

Q: I use a C64, my original 1541 #8 (never failed and used almost daily for 10 years), a 1541 11 #9 (usually not on), 1581 #9 (usually on), a Star NX 1000C (usually not on), and a Hewlett Packard LaserJet 11P Plus with a Super Graphix Jr. interface (switches all off). I've only this year got the Laser printer. My other 3 printers are all Commodore Compatible. Therefore, I'm new to the interface game. It's my understanding that this interface is supposed to emulate a 1525. Yet, when I try to use anything other than **GEOS** with a LASER PARALLEL driver or Easy Script with the CBM driver I get garbage. I've tried different drivers. I've tried unhooking everything except a single 1541 and the Laser. The results are the same.

I called TENEX, SSI, Hewlett Packard, and XETEC prior to buying the Laser and the Xetec. They all told me that the Laser printer would not work on the C64 or the C128. I had read articles in RUN that spoke contrary. So, I went ahead with the purchase. After a few months I again called XETEC and then Hewlett Packard. XETEC said that it would not work. H.P. said that it might work if I bought a $175.00 Epson Emulator Cartridge. My question is if it works with Easy Script configured as CBM or 1525 mode, why will it not work with the other programs when set to 1525 or 803 drivers. If it is in the graphic character

portion shouldn't the interface convert the info to something that the H.P. could read?

Also, you said that you use **GEOS** and Laser. How do you get rid of the clunky look on your fonts. I can do it but I have to reduce it down to the 70% and even then it still is not what I would call great. -- Charles Danter of Fillmore, New York

A: First let's deal with the dip switches on the interface.

To solve the garbage problem, you need to convert to ASCII in one way or another. To do this, you need to be in either 1525 or Super Graphix modes. Dip switches 3 and 4 down for emulate 1525 mode, or 3 up and 4 up for Super Graphix. Set the Device number for 4 and all internal fonts off (switches 1 and 2 down).

Try the 1525 mode first. I'd set printer selection to Daisy Wheel first and send something to the printer from an offending program. If this does not work right, try the GX 100/Banana next. You may have to run through all the various printer types to see if you can get any desired results.

Next try the Super Graphix mode. Do the same as before.

If you wish to use your printer with **GEOS** there are a couple of options to remove the jaggies. One would be to try the LM print drivers. LM means Laser Matrix. These drivers interpolate the points on the fonts and make for a smoother print out. You may

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be able to find one of these drivers in a PD Library such as a User Groups library. Q-Link is also a good place to look. The LM drivers can be created with the original program used to write these drivers for any printer. But a Laser Printer can and should do better. You should be able to successfuly interface the Laser with **commodore**.

What you need is a program that will access the internal fonts of the Laser. What your Laser is printing now is a graphic representation of what a dot matrix printer can do. **GEOS** has one such driver (although there a couple others in the guise of print drivers). **geoLaser** and **geoPubLaser** can access the fantastic font set availible to the DeskTop Publisher through the language known as **Post Script**. Your printer may or may not have this capability. You may have to buy a **Post Script** cartridge. Some laser printers have **Post Script** built in, some do not. You'll have to call HP back to see if it's availible for your unit.

If you have **Post Script** availble you will need a special interface to hook up to you printer. You need a serial interface hooked up from the user port to the serial port on the printer. Using **geoLaser** and/or **geoPubLaser** will not smooth out the text alone, you need to use the LW (Laser Writer) fonts. **geoLaser** and the LW fonts come with **GEOS2.0** and **geoPub-Laser** and the LW fonts come with **geoLaser** and **geo-**

Publish.

Q: I have been holding off purchasing **JiffyDOS** from CMD because it appears that **KeyDOS ROM** from Anti-GRAV Toolkit has many of the same features. And now to further muddy up the works comes The **Compression Kit** from Madman Software.

Are all of these hardware modifications and are they compatible with each other? Could all of these be put into a C128 for a ultra powerful machine? If not, which would make the most powerful combination in a C128?

I have seen reviews on each of these chips (except for **The Compression Kit**) and they all seem desirable but none compare themselves to each other or suggest one get them all and install them into the machine. -- Douglas E. Parsons of Melba, Idaho

A: The **KeyDOS ROM** is dubbed as fully compatible with **JiffyDOS**. I do not know if **JiffyDOS** is however, compatible with **KeyDOS ROM**. This month we are reviewing **JiffyDOS**. Next month we plan a **KeyDOS ROM** review. We also have the **Compression Kit** lined up for review. You might want to wait just a little longer to make a more informed decision, since all three of these will be on the same machine.

JiffyDOS replaces your Kernel ROMs with a chip that has twice the memory and both the original Kernel and an enhanced kernel with what is known as **JiffyDOS** on it.

KeyDOS ROM is on a chip that goes into the empty chip socket found on the inside of the C128. (The ROM may also be installed into an REU.)

I have no info on **The Compression Kit**. It is supposed to be a set of tools for use with REUs and hard disks, such as the CMD RAMDrive and HD series.

As far as which is best depends upon your needs. You get sped up drive access with **JiffyDOS**, while **KeyDOS** gives you file manipulation and extra programming features, but at normal access speeds.

Check out the REVIEW!s starting this month to find out what features each have.

Q: I have been using **Personal Portfolio Manager 128** and **Technical Analysis System 128** by Abacus on a 128D, an extra 1571, and a Commodore Modem 1200. When I started this program, I was able to download directly to the **PPM** data disk security quotations from Warner Computer Service. I could then transfer the quotes to the **TAS** data disk using a transfer program provided by Abacus. The successor to Warner, and Dow Jones News Retrieval also, will now only service IBM-compatible equipment and software.

I have been unsuccessful in divising a remedy. Abacus has not been helpful. I've tried to figure out how to use Big Blue Reader 128 in some way. So far, no dice. -- Gerald J. Risser of Kennett Square, Pennsylvania

A: It sound like what you need is a generic terminal program for the C128 that will allow you to download an ASCII file. Most any terminal program will alow you to do this. Once the data is downloaded you should be able to convert it into something meaningful that you can use with **TAS**. I don't know what form of data files are used by **TAS**. If it uses sequencial files you have it made, if it uses program files you'll have to find a way to onvert them (**JiffyDOS** will allow you to convert SEQ to PRG file).

Fleet System 4 for the C128 can load a sequencial file. You can then save it as a program file by simply saving it as a normal **Fleet System** file. Be sure not to add anything to the file in the way of formatting commands.

Q: I have a 1520 plotter, which I've never used because I could never find the pens for it. Anybody know a source? -- L.A. Schafer of Newton Corner, Massachusetts

A: Radio Shack to this day still carries the pens for their printer/plotter. They are the same as the 1520's pens. However, the last time I saw them, they only came with three colors (red, green, and blue), but no black.

READY.

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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. (If you want to sell something you'll have to take out a classified, they are $0.25/word.) All **TCs** will be listed for three months. Write to **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: Transactor Magazines, Comander Magazines. BLC #000000, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, Idaho, 83701.

Wanted: **Shadow of the Beast** cartridge for the C64/128, **Echelon** for C128, and **Qix** for C128. Barry Hom #000168, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: 1. **The Omnicrom Conspiracy** by Epex. 2. **Purple Saturn Day** by Epex. I have over 400 programs that I will trade for, or I will buy the two games listed above. Craig Shepley #002042, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: Anyone out there have a working **Write Now** cartridge with which they would part? (CardCo) Walter C. Erbach #000286, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: Two Plus/4 computers. Mr. Oran Sands #001801, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: I am interested in obtaining a copy of Len Lyons book "Using the Commodore 64," published by Addison-Wesley of Reading, Mass. Bob Grunwald #002547, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: **Speedscript64** most recent version. **Phone List** additions automatically alphabetized. Donald H. Webber #001188, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: Original **Compute!**, **RUN**, **Ahoy**, & **Transactor** disks. Pre-volume 5 **Transactor** mags. R. Scot Derrer #0000B, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

Wanted: I'm looking for a CMD128D to purchase as a spare. John W. Crockett #001210, c/o **dieHard**, Trader's Corner, P. O. Box 392, Boise, ID, 83701.

READY.

■

Classifieds

DOS & Don'ts

by
Joel Ellis Rea

OPENing SEQ Files

To OPEN a sequential file, you use the BASIC OPEN statement. The Logical File number can be anything from 1 to 127, the Device Number (or First Address) must be the unit number of the disk drive you are using (ranges from 8 to 11, usually 8). The Channel #, or Secondary Address can be anything from 2 to 14. (Remember, 15 is the CEC, and 0 and 1 are set up for LOADs and SAVEs, respectively.) The filename can be a string of up to 16 of almost any characters, except for return, comma, colon, asterisk or the question mark. The file name also cannot begin with a number sign or a dollar sign, although these characters can be used within the file name.

If you are OPENing an existing file to be read from, that is all you need. If you are creating a new file and you want to write to it, first be sure to SCRATCH it, then OPEN it with a ',S,W' attached to the name. This signifies a SEQuential file OPENed for WRITE. If you are OPENing an existing file to add data to the end of it, use the undocumented (at least in the current 1541 manual) ',A' option. This signifies an OPEN for APPEND. You need to specify the file type only when creating the file. The mode must be specified if it is not READ (',R').

In an actual program, you should OPEN the CEC before OPENing any sequential files, and keep it OPEN until the last file has been CLOSED. This enables the program to detect and act upon the nature of various disk errors that may occur, and to send maintenance commands (such as the SCRATCH before creating a file) to the drive.

Writing SEQ files

Now for some Examples! Let's imagine a program that needs to keep tabs on 100 strings and 100 numbers. Since (assuming the strings are small) this can be kept in memory, the data will be manipulated in the form of a string array (say, S$) and a numeric array (say, N). But, the data must be kept intact between program 'RUNs'. Since RAM is notorious for forgetting things every time the power goes out or someone types 'NEW' or 'CLR' or runs another program, we use a sequential file on disk to hold the 'goods'.

Let's suppose that this data is in a file called 'DATAFILE'. We must first OPEN the CEC and set up some variables that we will need:

```
10 OPEN 15,8,15,"I0":
   F$="DATAFILE": R$=CHR$(13):
   DIM S$(100), N(100)
```

Now let's check to see if the file is on the disk.

```
20 PRINT#15,"R0:";F$;"=";F$:
   INPUT#15, ER%, ER$, ET%, ES%
30 IF ER%=62 THEN 1000: REM FILE
   NOT FOUND
40 IF ER%<>63 THEN 2000: REM
   ERROR IF NOT A 'FILE EXISTS'
   MESSAGE.
```

If the file does not exist, we will handle that in line 1000. If a disk error occurred, we will handle that in line 2000. If the file does exist, however, we will OPEN it and read its contents:

```
50 OPEN 2,8,2,F$: REM NO OPTIONS
   NEEDED FOR SEQUENTIAL READ.
60 FOR I=1 TO 100: INPUT#2,
   S$(I),N(I): NEXT:   CLOSE 2
```

We have now 'loaded' the arrays with the contents of the file 'DATAFILE'!

Later on in the program, we have updated the data and want to write it out to a new version of 'DATAFILE'. Here is what we do:

```
500 PRINT#15, "S0:"+F$: REM
    SCRATCH OLD VERSION FIRST!
510 OPEN 2, 8, 2, F$ + ",S,W":
    REM OPEN SEQUENTIAL FILE FOR
    WRITE.
520 FOR I=1 TO 100: PRINT #2,
    S$(I); R$; N(I): NEXT I:
    CLOSE 2
```

Notice the use of the separator variable R$ (which was assigned a carriage return character in line 10) in line 520.

The routine at line 1000 which handles the case of the 'DATAFILE' not being on the disk might be like this:

```
1000 PRINT "DATAFILE NOT FOUND!":INPUT "MAKE ONE FROM SCRATCH? ";A$
1010 IF LEFT$(A$,1)="Y" THEN 1100
1020 PRINT "PUT IN CORRECT DISK":PRINT "THEN PRESS A KEY:"
1030 POKE 198, 0: WAIT 198, 1:POKE 198, 0: GOTO 20: REM GET KEY.
1100 OPEN 2, 8, 2, F$+",S,W": REM OPEN FOR SEQUENTIAL WRITE.
1110 FOR I=1 TO 100:  PRINT #2,CHR$(160); R$; 0: NEXT I: CLOSE 2
1120 GOTO 20
```

Lines 1000-1030 ask the user if the file needs to be created from scratch. If not, line 1030 waits for a key press then goes back to line 20, which looks for the file again.

Lines 1100-1120 create a new 'DATAFILE'. In line 1110, a CHR$(160), or 'shifted-space' is used for the empty strings. In all, 100 empty strings and zeros are written to the file.

The routine at line 2000 handles disk errors. It checks the value of ER% (obtained from the CEC in line 30) and acts upon several possibilities:

```
2000 IF ER% <> 26 THEN 2100
2010 PRINT "REMOVE THE DISK, ";"TAKE OFF THE WRITE-PROTECT TAB,"
2020 PRINT "THEN REPLACE THE ";"DISK AND PRESS A KEY:"
2030 POKE 198, 0: WAIT 198, 1:POKE 198, 0:  GOTO 20
2100 IF ER% <> 74 THEN 2200
2110 PRINT "CLOSE THE DISK";"DOOR, THEN PRESS A KEY:"
2120 GOTO 2030
2200 PRINT "DISK ERROR #"; ER%;"TYPE: "; ER$
2210 PRINT "ON BLOCK "; ES%;" OF TRACK ";ET%: END
```

Lines 2000-2030 check for a Write Protect tab (error #26). Lines 2100-2120 handle a 'Drive Not Ready' error (#74). This is often caused by the disk drive door being open, or no disk being in the drive. Lines 2200 & 2210 display other errors, which usually mean a bug in the program or a bad disk in the drive.

This concludes this part of our study of Sequential Files. Hope you have maybe learned something. Have fun!!

READY.
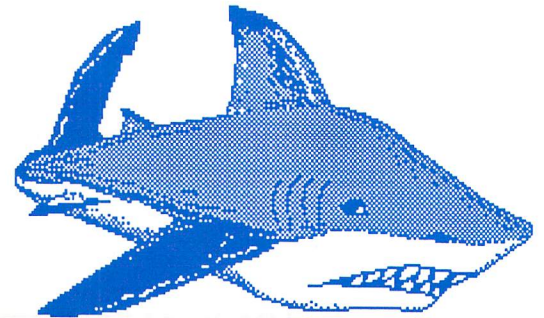
PRG

READ ADDRESS (C64)

by

James T. Jones

This program is for determining starting and ending addresses of a program on disk. For a number of applications the starting (SA) and the ending addresses (EA) of machine language (ML) program are needed. For example, if one wishes to make BASIC DATA statements out of an ML program in memory, these addresses are required.

The program of listing 2 does just that -- it determines the SA and EA for any program file on the disk in the drive. A C64 mode program, it is chiefly intended for use with ML programs, but can also be used with BASIC programs when it is essential to know precisely how long a given program is. THE PROGRAM WORKS WITH PROGRAM FILES but not with SEQUENTIAL, USER, RANDOM or RELATIVE files.

For example, if the top of BASIC is lowered to a given address in order to protect a font, you must be certain that there is sufficient memory available for your BASIC program. The program has an advantage over similar utilities in that it will determine these addresses for ML programs that have BASIC headers, as well as for compiled BASIC programs.

Type the program of Listing 1 and SAVE it under the name, ADDRESSES BOOT, then type and SAVE, on the same disk, the program of Listing 2 under the name, READ ADDRESSES. To run the program, on a blank screen line, type

LOAD"ADDRESSES BOOT",dv

where dv is the device number of your disk drive, and press <RETURN>. Then on another blank screen line, type RUN (press <RETURN>). It is *essential* to use the boot program, because it moves the start of BASIC to 38912 ($9800). The program should work for any program file that is not so long that it overwrites address 38912 and subsequent addresses.

Listing 1

```
0 REM ADDRESSES BOOT - JAMES T. JONES
1 REM COPYWRITE 1993 LYNNCARTHY
      INDUSTRIES, INC.  ALL RIGHTS
      RESERVED
10 CS$=CHR$(147):DA$=CHR$(8):WH$=
      CHR$(5):UC$=CHR$(142)
      :CD$=CHR$(17)
20 QU$=CHR$(34):HM$=CHR$(19):
      POKE53280,6:POKE 53281,6:PRINT
      CS$DA$WH$UC$
30 POKE 214,12:PRINT:DV=PEEK(186):
      IF DV<8 THEN DV=8
40 N$="BOOTING READ ADDRESSES"
      :PRINTSPC(20-LEN(N$)/2)N$
50 POKE 43,1:POKE 44,152:
      POKE 152*256,0:
      POKE 646,PEEK(53281)
60 PRINT HM$CD$CD$CD$"LOAD"QU$"READ
      ADDRESSES"QU$","DV
70 PRINT CD$CD$CD$CD$"RUN"HM$
80 POKE 631,13:POKE 632,13:POKE 198,2
90 NEW
```

Listing 2

```
1 REM COPYWRITE 1993 LYNNCARTHY
      INDUSTRIES, INC.  ALL RIGHTS
      RESERVED
5 CS$=CHR$(147):RV$=CHR$(18):
      RO$=CHR$(146):CD$=CHR$(17):
      DA$=CHR$(8):WH$=CHR$(5)
10 UC$=CHR$(142):POKE53280,6:
      POKE53281,6:PRINT DA$WH$UC$
20 DV=PEEK(186):IF DV<8 THEN DV=8
30 GOSUB 240:PRINT CS$CD$CD$CD$"NAME
      OF FILE HAVING START
      ADDRESS "RV$"SA"
40 PRINT "AND END ADDRESS
      "RV$"EA"RO$" IS"
50 PRINT:INPUTF$:F$=LEFT$(F$,16)
60 GOSUB 320
70 CLOSE 2:OPEN 2,DV,2,F$
80 GET#2,A$,B$:CLOSE 2:C$=CHR$(0)
90 SA=ASC(A$+C$)+256*ASC(B$+C$)
100 PRINT CD$CD$"START ADDRESS
      OF "RV$F$:PRINT CD$"IS "RV$SA
110 N$=YW$+"WORKING..."+WH$
120 POKE214,12:PRINT
130 PRINT SPC(20-LEN(N$)/2)N$
135 IF SA<>2049 THEN 145
140 POKE 147,0:SYS 57812 F$,DV,1
      :SYS 62631
145 SYS 57812 F$,DV,0:POKE 780,0:
      POKE 781,1:POKE 782,8:SYS 65493
150 POKE 214,12:PRINT
160 PRINT SPC(20-LEN(N$)/2)
      "[10 SPACES]"
170 PRINT CD$CD$"END ADDRESS
      OF "RV$F$RO$" IS "
175 EP=PEEK(174)+256*PEEK(175):
      IF EP=0 THEN PRINT CD$
      RV$65535:GOTO 190
177 IF SA<>2049 THEN 185
180 PRINT CD$RV$ EP-1:GOTO 190
185 PRINT CD$RV$ SA+EP-2050
190 PRINT CD$CD$CD$"GET START AND EN
      ADDRESSES FOR"
200 PRINT"ANOTHER FILE  (Y/N)?"
210 GETA$:IF PEEK(197)<>25 AND
      PEEK(197) <>39 THEN 210
220 IF PEEK(197)=25 THEN
      POKE 198,0:GOTO 30
230 POKE 43,1:POKE 44,8:
      POKE 8*256,0:POKE 198,0:END
240 REM CHECK TO SEE WHETHER DISK
      DRIVE IS TURNED ON OR DRIVE
      DOOR IS OPEN
250 CLOSE 15:OPEN 15,DV,15:CLOSE 15
260 IF ST=0 THEN RETURN
270 GOSUB 400
280 PRINT CS$:POKE214,12:PRINT:
      PRINT "TURN YOUR DISK DRIVE ON
      AND PRESS"
290 PRINT CD$"<RETURN>!!"
300 GETA$:IF A$<>CHR$(13) THEN 300
305 OPEN 15,DV,15,"I":CLOSE 15
310 RETURN
320 REM CHECK TO SEE WHETHER FILE
      NAME, F$, IS ON DISKETTE IN DISK
      DRIVE
330 OPEN 15,DV,15,"R0:"+F$+"="+F$
      :INPUT#15,ER:CLOSE 15
340 IF ER<>63 THEN GOSUB 400:GOTO 36
350 RETURN
360 POKE214,12:PRINT:PRINT"FILE WITH
      NAME "RV$F$RO$" IS NOT"
370 PRINT"FOUND!!!  PRESS <RETURN>
      TO TRY AGAIN."
380 GETA$:IF A$<>CHR$(13) THEN 380
390 OPEN 15,DV,15,"I":CLOSE 15
      :GOTO 190
400 REM "WOODPECKER" SOUND
410 S=54272:POKE S+6,240
      :POKE S,10:POKE S+1,40
      :POKE S+4,33
420 FORJ=1TO10:POKE54296,15:FORK=1TO
      :NEXTK:POKE54296,0:FORK=1TO5
      :NEXTK:NEXTJ
430 POKE S+4,128
440 RETURN
```

PRG

MAXI DISK SLEEVE (C128)

by

Larry Pankey

If you would like to print the filenames of a disk on a sheet of paper using your printer and fold it into a sleeve for storing the disk, then this program is for you. It will print up to 144 files, (the maximum a 1541/1571 disk can hold), and outline the sleeve for cutting and taping together. The sleeve then will be a quick reference for disk contents.

MAXI DISK SLEEVE is written to run on a C128 in 80 columns only. Your printer should be capable of printing in compressed pitch, superscript font and n/216 or n/360 inch paper feed. All printer codes are included in lines 260 to 310. The program is set to print in 20/216 inch paper feed increments. For 360th inch increments, change variable MI in line 290 to MI=33. Change the other printer codes for your printer if they differ.

If your printer is a Commodore-dedicated printer, then put a REM at the beginning of lines 480 and 560. They are used to eliminate graphic characters, such as CHR$(160), in the disk name and filenames. When printing in any pitch other than pica, your printer interface generates its own graphic characters and they are printed in pica pitch which would alter the printing of the sleeve. Removing the graphic characters makes the program run a bit slower, but is required on most interfaces. Try it on your printer both ways to determine your needs.

All filenames will be printed on the screen and then they are sorted to print them in 3 columns in sequence from top to bottom. The sorting time required will appear on the screen to alert you it is in process. After sorting, your hard copy of the sleeve should begin to print. After printing, you are prompted if you want to print the disk sleeve again, print a new disk sleeve or quit.

After the sleeve is printed, remove the paper from your printer and cut out the sleeve on the outside dotted lines. Fold it at the center dotted line and fold over the two edges at the dotted lines. Now, either glue the edges down or use mending tape to close the sides of the sleeve. Like magic you have a disk sleeve with the programs listed on the front and on

the back if the disk has more than 108 files.

```
1 REM COPYRIGHT 1993 LYNNCARTHY
   INDUSTRIES, INC. ALL RIGHTS
   RESEVED.
10 REM---1541/1571 C128 MAXI DISK
   SLEEVE BY LARRY PANKEY V2.0
   6-5-93
30 DATA 160,3,165,47,133,252,165,48
40 DATA 133,253,169,252,162,1,32,116
50 DATA 255,133,250,200,169,252,162,1
60 DATA 32,116,255,133,251,162,2,32
70 DATA 198,255,160,0,32,228,255,162
80 DATA 250,142,185,2,162,1,32,119
90 DATA 255,200,192,32,208,238,76,204
100 DATA 255,32,32,32,32,32,32,32
   ,219,219
120 REM---BEGIN PROGRAM
130 SCNCLR:IFPEEK(215)<>128THEN
   PRINT"THIS PROGRAM RUNS IN
   128/80 COLUMN ONLY":END
140 CLR:FAST:COLOR4,1:TRAP1290
150 A$=" ":FORY=1TO31:A$=A$+" "
   :NEXT:E$=CHR$(27):Z$=CHR$(0)
160 T$(1)="S":T$(2)="P":T$(3)="U"
   :T$(4)="R"
170 RV$=CHR$(18):RO$=CHR$(146)
   :FL$=CHR$(15):D$=CHR$(17)
   :W$=CHR$(5):C$=CHR$(147)
180 R$=CHR$(150):LG$=CHR$(153)
   :G$=CHR$(155):Y$=CHR$(158)
   :H$=CHR$(19)+CHR$(19)
190 S1$="[SPACE]":S2$="[2 SPACE]"
   :S5$="[5 SPACE]":S6$=
   "[6 SPACE]":S7$="[7 SPACES]"
   :SH$="[3 SPACES]":SP$=
   "[15 SPACES]":I$=".":Q$=CHR$(34)
   :YB$=Y$+CHR$(221)+G$
200 DR=2816:FORDA=0TO65:READDT
   :POKEDR+DA,DT:NEXT
210 TS$=".[SPACE]":FORA=1TO6:TS$=
   TS$+TS$:TS$=LEFT$(TS$,109):NEXT
220 UL$="[24 -]"
230 NL$=S6$+I$+S7$:NR$=S6$+I$
   :SL$=I$+S5$+I$+S7$
   :SR$=S6$+I$+S5$+I$
240 DIMF$(145),G$(145)
260 REM---PRINTER CODES
270 CP$=E$+CHR$(33)+CHR$(4)
   :REM---COMPRESSED PITCH
280 SS$=E$+CHR$(83)+CHR$(1)
   :REM---SUBSCRIPT ON
290 MI=20:PF$=E$+CHR$(43)+CHR$(MI)
   :REM---PAPER FEED 20/216 (IF
   PAPER FEED IS IN N/360 INCH,
   THEN CHANGE MI TO 33)
300 SO$=E$+CHR$(84):
```

```
   REM---SUBSCRIPT OFF
310 RS$=E$+CHR$(64):
   REM---PRINTER RESET
330 PRINTC$CHR$(142)CHR$(11)SPC(34)
   FL$R$"ATTENTION !!"
340 PRINTSPC(21)G$D$"TURN ON YOUR
   PRINTER AND SET THE PAPER"
350 PRINTSPC(17)"PERFORATION 1/2 INC
   ABOVE THE PRINT HEAD MASK."
360 PRINTSPC(26)Y$D$"PRESS SPACE BAR
   TO CONTINUE":POKE208,0
370 DO:GETKEYK$:LOOPUNTILK$=CHR$(32)
   :IFPSTHEN760
380 CLOSE15:OPEN15,4,15:CLOSE15
390 IFST<>0THENPRINTSPC(30)FL$W$D$D$
   "CHECK YOUR PRINTER!":SLEEP2
   :GOTO140
410 REM---LOAD FILE NAMES
420 SCNCLR:DCLEAR:IFDSTHEN
   PRINTDS;DS$:END
430 OPEN1,8,15:OPEN2,8,2,"#":T=18:S=
440 PRINT#1,"U1";2;0;T;S:
   PRINT#1,"B-P:"2;0
450 FORR=0TO7:SYSDR:IFR=4THEN
   FF$=MID$(A$,17,16)
460 IFR=5THENFF$=FF$+MID$(A$,2,6)
470 NEXT
480 GOSUB1080:REM-DELETE THIS LINE I
   YOU HAVE A COMMODORE DEDICATED
   PRINTER
490 DN$=Q$+LEFT$(FF$,16)+Q$+
   RIGHT$(FF$,6)
500 S=1:PRINTSPC(28)RV$LG$DN$RO$G$
   :WINDOW0,2,79,23,1
510 PRINT#1,"U1";2;0;T;S
   :PRINT#1,"B-P:"2;0
520 FORR=0TO7:FT=0:SYSDR
530 IFR=0THENT=ASC(MID$(A$,1,1))
   :S=ASC(MID$(A$,2,1))
540 IFMID$(A$,3,1)=Z$THEN630
550 FT=ASC(MID$(A$,3,1))
   :FF$=MID$(A$,6,16)
560 GOSUB1080:REM-DELETE THIS LINE I
   YOU HAVE A COMMODORE DEDICATED
   PRINTER
570 IFFT>127ANDFT<135THEN
   TF$=S2$+T$(FT-128)+S1$:GOTO600
580 IFFT>192THENTF$=S2$+T$(FT-192)
   +"<":GOTO600
590 IFFT<128ORFT>134THEN
   TF$=S2$+"?"+S1$
600 F=F+1:BK$=STR$(ASC(MID$(A$,31,1)
   +ASC(MID$(A$,32,1))*256)
610 BK$=MID$(BK$,2,3)+LEFT$(SP$,6-
   LEN(BK$)):F$(F)=BK$+FF$+TF$
620 PRINTLEFT$(F$(F),26);:J=J+1:IFJ
   THENJ=0:PRINT:GOTO630
```

MARQUEE MADNESS (C128)
by Larry Pankey

MARQUEE MADNESS is a short program to add at the front of your programs to give them a bit of flash. It displays a running, flashing boarder of lights in color similar to the old style movie theaters. It runs on the C128/80 column only and uses two separate screens to accomplish the running lights. Just type it in and change the title screen to your needs in lines 50000 to 59000 then save it to disk. Renumber your program beginning with line number 100, and merge it with this program. Just remember line 59000 must be RETURN.

```
       :ELSEPRINTYB$;
630 NEXT:IFTTHEN510
640 DCLOSE:IFF<1THENSCNCLR
       :PRINTLG$"NO FILES!":GOTO1200
660 REM---GET BLOCKS FREE
670 OPEN1,8,0,"$0:"
680 FORI=1TO18:GET#1,A$,B$:NEXT
       :CLOSE1
690 B=ASC(A$+Z$)+256*(ASC(B$+Z$))
       :BF$=MID$(STR$(B),2,4)
700 BF$=BF$+S1$+"BLOCKS FREE"+LEFT$
       (SP$,(14-LEN(BF$))):PRINTBF$
720 K=1:FORH=1TO3:FORJ=0+HTOFSTEP3
       :G$(J)=F$(K):K=K+1:NEXTJ:NEXTH
730 FORA=1TOF:F$(A)=G$(A):NEXT
750 REM---PRINT SLEEVE
760 PRINTSPC(26)LG$D$"NOW I'M
       PRINTING . . . . ."
770 CLOSE4:OPEN4,4:PRINT#4,CP$;SS$
       ;PF$:PRINT#4,TS$
780 PRINT#4,SL$SPC(82)SR$
790 PRINT#4,SL$SPC(29)DN$;SPC(29)SR$
       :PRINT#4,SL$SPC(29)UL$
       ;SPC(29)SR$
800 IFF>107THEN910
810 FORT=1TOFSTEP3
820 PRINT#4,SL$F$(T)SH$;:IFT=FTHEN
       PRINT#4,BF$SPC(28)SR$:P=P+1
       :GOTO870
830 PRINT#4,F$(T+1)SH$;:IFT+1=FTHEN
       PRINT#4,BF$SR$:P=P+1:GOTO870
840 PRINT#4,F$(T+2)S1$SR$:P=P+1
850 IFT+2=FTHENPRINT#4,SL$;BF$
       SPC(56)SR$:P=P+1:GOTO870
860 NEXT
870 IFINT(P/2)<>P/2THENPRINT#4:P=P+1
880 IFP=36THEN900
890 PRINT#4,SO$;:FORA=1TO
       INT((36-P)/2):PRINT#4,SL$
       SPC(82)SR$:PRINT#4:NEXT
900 PRINT#4,TS$:PRINT#4:P=0:GOTO1040
910 FORT=1TO108STEP3
920 PRINT#4,SL$F$(T)SH$;
930 PRINT#4,F$(T+1)SH$;
940 PRINT#4,F$(T+2)S1$SR$:P=P+1
950 NEXT:PRINT#4,TS$:PRINT#4:P=0
960 IFF=108THENPRINT#4,NL$BF$SPC(56)
       NR$:P=P+1:GOTO1030
970 FORT=109TOFSTEP3
980 PRINT#4,NL$F$(T)SH$;:IFT=FTHEN
       PRINT#4,BF$SPC(28)S1$NR$:P=P+1
       :GOTO1030
990 PRINT#4,F$(T+1)SH$;:IFT+1=FTHEN
       PRINT#4,BF$S1$NR$:P=P+1:GOTO1030
1000 PRINT#4,F$(T+2)S1$NR$:P=P+1
1010 IFT+2=FTHENPRINT#4,NL$BF$SPC(56)
       NR$:P=P+1:GOTO1030
1020 NEXT
1030 IFINT(P/2)<>P/2THENPRINT#4:P=P+1
1040 PRINT#4,SO$;:FORA=1TOINT((50-P)
       /2):PRINT#4,NL$SPC(82)NR$
       :PRINT#4:NEXT
1050 PRINT#4,SPC(6)LEFT$(TS$,97)
       :FORA=1TO25:PRINT#4:NEXT
       :PS=1:GOTO1190
1070 REM---ELIMINATE GRAPHIC
       CHARACTERS
1080 C=LEN(FF$):FORB=1TOC:
       Z=ASC(MID$(FF$,B,1))
1090 IFZ=160THEN1160
1100 IFZ=92ORZ=94ORZ=95THENZ=63
       :GOTO1150
1110 IFZ<32ORZ>218THEN1150
1120 IFZ>93ANDZ<193THEN1150
1130 IFZ>192THEN1160
1140 NEXT:RETURN
1150 GG$=LEFT$(FF$,B-1)+CHR$(58)
       +RIGHT$(FF$,C-B):FF$=GG$
       :GOTO1140
1160 GG$=LEFT$(FF$,B-1)+CHR$(Z-128)
       +RIGHT$(FF$,C-B):FF$=GG$
       :GOTO1140
1180 REM---PRINT AGAIN OR ANOTHER
       DISK
1190 CLOSE4:OPEN4,4:PRINT#4,RS$
       :CLOSE4
1200 PRINTSPC(26)Y$D$D$"SELECT (1-3)
       :":PRINTSPC(28)D$"1. PRINT
       AGAIN":PRINTSPC(28)D$"2. DO
       ANOTHER DISK":PRINTSPC(28)D$"3.
       QUIT":POKE208,0
1210 DO:GETKEYK$:K=VAL(K$):LOOPUNTIL
       K>0ANDK<4:PRINTH$C$;:IFK>1
       THENPS=0
1220 ONKGOTO330,1230,1260
1230 PRINTC$D$LG$SPC(21)"PLACE
       ANOTHER DISK IN THE DRIVE, THEN"
1240 PRINTD$Y$SPC(26)"PRESS SPACE BAR
       TO CONTINUE.":POKE208,0
1250 DO:GETKEYK$:LOOPUNTILK$=CHR$(32)
       :GOTO140
1260 PRINTCHR$(159)CHR$(12):END
1280 REM---TRAP ROUTINE
1290 PRINTW$H$C$:DCLOSE:CLOSE4:IFDS
       THENPRINTSPC(40-LEN(DS$)/2)DS$
1300 TRAP1290:IFER=30THENPRINTSPC(31)
       D$"YOU PRESSED STOP!":GOTO1190
1310 IFERTHENPRINTSPC(40-LEN
       (ERR$(ER))/2)ERR$(ER):
       PRINTSPC(34)"LINE #:"EL:END
1320 GOTO1200
```

```
0 REM MARQUEE MADNESS C128/80 -
   LARRY PANKEY:(C) 1993 LYNNCARTHY
   IND., INC. ALL RIGHTS RESEVERED
10 FAST:PRINT"[CLR]"CHR$(142)
   :A$=CHR$(18)+"  "
20 D=100:TS=52684:TB=2606:TA=2607
   :SYSTS,0,35
30 GOSUB60150:SCNCLR:J=1:GOSUB60010
   :GOSUB50010:GOSUB60160:SCNCLR:J=2
   :GOSUB60010:GOSUB50010
50 SYSTS,100,35:POKE208,0
60 GETK$:IFK$=" "THEN90
70 FORA=1TOD:NEXT:GOSUB60150
80 FORA=1TOD:NEXT:GOSUB60160:GOTO60
90 SYSTS,0,35:GOSUB60160:SCNCLR
   :GOSUB60150:SCNCLR:SYSTS,100,35
100 END:--YOUR PROGRAM CONTINUES HERE
50000 REM---TITLE SCREEN
50010 PRINTTAB(26)"[YEL][RVS OFF]
   [10 DOWN]YOUR TITLE SCREEN
   GOES HERE!"
50020 PRINTTAB(26)"[L GRN][10 DOWN]
   PRESS SPACE BAR TO CONTINUE.[CYN]"
59000 RETURN
60000 SCNCLR:COLOR6,1:REM---BORDER
60020 C=J+1:FORX=0TO78STEP2:COLOR5,C
   :CHAR,X,0,A$:C=C+1
60030 IFC=17THENC=2
60040 NEXTX:
60050 C=J+4:FORX=1TO23:COLOR5,C
   :CHAR,78,X,A$:C=C+1
60060 IFC=17THENC=2
60070 NEXTX:POKE248,128
60080 C=J+8:FORX=23TO1STEP-1:COLOR5,C
   :CHAR,0,X,A$:C=C+1
60090 IFC=17THENC=2
60100 NEXTX
60110 C=J+12:FORX=78TO0STEP-2
   :COLOR5,C:CHAR,X,24,A$:C=C+1
60120 IFC=17THENC=2
60130 NEXTX:PRINT"";:POKE248,0:RETURN
60140 REM---ALTERNATE SCREENS
60150 SYSTS,0,12:SYSTS,0,13:SYSTS,8
   ,20:SYSTS,0,21:POKETB,0:POKETA,8
   :RETURN
60160 SYSTS,16,12:SYSTS,0,13:SYSTS,2
   ,20:SYSTS,0,21:POKETB,16:POKETA,2
   :RETURN
```

dieHard LOTTO (C64/VIC20)

by

James T. Jones

The players of this version of **dieHard LOTTO** pick six numbers ranging from 1 to 50 for each play board. This corresponds to the LOTTO game as played in Texas.

The following program generates sets of six random numbers ranging from 1 to 50 and prints them on a page with three sets per line. If an official lottery game in your state has a different range of number, change C in line 50 accordingly. If less than six numbers are to be picked, change A. The number of sets printed per line is controlled by B.

Lines 190 and 200 are listed twice. The first listing is for the C64 and the second is for the VIC20.

I like to print a page (75 sets), then let my pen glide over the numbers, changing some as the spirit guides me. Good luck!

It should be expressly understood that this program is for entertainment purposes only. Use of the program for any other purpose may be illegal and subject you to fine and/or imprisonment. The actual sets of winning numbers of an official lottery game (if any) in your state may be totally different than the numbers generated by the program and no representation is made that the program will in any way assist you to pick winning numbers in an actual game.

```
0 REM DIEHARD LOTTO - JAMES T. JONES
1 REM COPYRIGHT 1993 LYNNCARTHY
    INDUSTIES, INC.  ALL RIGHTS
    RESERVED.
10 PRINTCHR$(147)CHR$(142)"GET YOUR
```

```
    PRINTER READY, ALIGN THE PRINT"
20 PRINT"HEAD AT THE TOP OF THE
    PAGE, THEN"
30 PRINT"PRESS <RETURN>."
40 GET A$:IF A$<>CHR$(13) THEN 40
50 CLR:A=6:B=3:C=50:Q=RND(-RND(0))
60 OPEN 1,4,7:CMD 1
70 Y=1
80 M=0
90 X=1
100 N(X)=1+INT(RND(1)*C)
110 IF X>1 THEN 220
120 PRINT N(X);:FOR T=1 TO 15:NEXT T
130 IF X<A THEN X=X+1:GOTO 100
140 PRINT"**";:M=M+1:IF M<B THEN90
150 PRINT:PRINT
160 IF Y<25 THEN Y=Y+1:GOTO80
170 PRINT#1:CLOSE 1:CLR
180 PRINTCHR$(147)CHR$(142)"PRINT
    ANOTHER SHEET OF LOTTO
    NUMBERS?   (Y/N)"
190 GETA$:IF PEEK(203)<>25 AND
    PEEK(203)<>39 THEN 190:REM C64
190 GETA$:IF PEEK(203)<>11 AND
    PEEK(203)<>28 THEN 190:REM VIC20
200 IF PEEK(203)=25 THEN POKE 198,0
    :GOTO 10:REM C64
200 IF PEEK(203)=11 THEN POKE 198,0
    :GOTO 10:REM VIC20
210 POKE 198,0:PRINT:PRINT"GOOD
    LUCK!":END
220 FOR Z=1 TO X-1
230 IF N(Z)=N(X) THEN Z=X-1:NEXT Z
    :FOR T=1 TO 15:NEXT T:GOTO 100
240 NEXT Z
250 GOTO 120
```

NO SMOKING (C128)

by

Joseph J. Richardson

This program is straight from the Surgeon General's office. A nice 128 graphic display about not smoking.

```
10 SCNCLR:COLOR0,7:COLOR1,2:COLOR4,7
    :CHAR1,6,10,"THANK YOU FOR NOT
    SMOKING":SLEEP2
60 CHAR1,7,14,"BY JOESEPH J
    RICHARDSON":SLEEP2
70 GRAPHIC1,1:CIRCLE1,160,100,120,80
90 CIRCLE1,160,186,8,7
    :CIRCLE1,160,200,9,8
110 DRAW1,155,180 TO140,200 TO 180,
    200 TO 165,180:DRAW1,110,172
    TO 90,200 TO 230,200 TO 210,172
130 CIRCLE1,33,100,8,30
140 CIRCLE1,33,100,6,28
150 CIRCLE1,289,100,8,30
160 CIRCLE1,289,100,6,28
170 CIRCLE1,110,80,22,10
    :CIRCLE1,110,80,8,6
180 CIRCLE1,211,80,22,10
    :CIRCLE1,211,80,8,6
190 CIRCLE1,160,110,11,11
200 CIRCLE1,160,150,30,4
210 CIRCLE1,160,150,28,2
220 DRAW1,170,150 TO 220,162
230 DRAW1,165,150 TO 220,166
240 DRAW1,41,80 TO 30,50
    :DRAW1,41,80 TO 50,30
250 DRAW1,279,79 TO 260,30
    :DRAW1,279,79 TO 285,50
260 DRAW1,150,110 TO 120,140
    :DRAW1,170,110 TO 200,140
270 CIRCLE1,110,80,23,11
    :CIRCLE1,110,80,2,2
280 CIRCLE1,211,80,23,11
    :CIRCLE1,211,80,2,2
290 CIRCLE1,110,60,22,2
    :CIRCLE1,211,60,22,2
300 DRAW1,110,173 TO 30,180 TO 20,200
310 DRAW1,217,173 TO 297,180 TO 310,20
320 CHAR,27,20,"[SHIFT Q]"
    :CHAR,27,19,"[C= -]"
340 DRAW1,10, 2 TO 315, 2 TO 315,198
    TO 10,198 TO 10, 2
350 DRAW1, 95,60 TO 125,60
    :DRAW1,195,60 TO 225,60:SLEEP2
370 CHAR1,5,1,"SMOKING IS BAD FOR YOUR
    HEALTH":SLEEP2
375 CHAR1,4,23,"THIS GUY DOESN'T LOOK
    TOO HEALTHY":SLEEP4:SCNCLR
380 COLOR0,3:COLOR1,1:COLOR4,3
390 CHAR1,1,6,"THANKS FOR WATCHING -
    HAVE A GOOD DAY!"
```