

JUNE

1997

# LUCKY REPORT



**Anyone for FREE TV?**

**An Article by Jim Butterfield**

**FUN WITH GEOPAINT**

**Reviewing the "Reverse-Inverse Process"**

## LUCKY'S OFFICERS

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## TREASURER'S REPORT

by **Bill Bunch**  
---May 1997---

|                              |                         |
|------------------------------|-------------------------|
| <b>Beginning Balance</b>     | <b>\$ 561.98</b>        |
| <b><u>INCOME:</u></b>        | <b><u>\$ 208.96</u></b> |
| Library                      | 22.00                   |
| Raffle                       | 21.00                   |
| Dues (8.25)                  | 165.00                  |
| Interest                     | .96                     |
| <b><u>EXPENSES:</u></b>      | <b><u>\$ 88.87</u></b>  |
| BBS                          | 30.00                   |
| Attendance Drawing           | 10.00                   |
| Newsletters (May)            | 34.56                   |
| Newsletter postage           | 14.32                   |
| <b><u>Ending Balance</u></b> | <b><u>\$ 681.97</u></b> |

An itemized statement of the above is posted at each monthly meeting.

LUCKY, INC. is a Non-Profit Organization whose purpose is to unite and educate users of Commodore computers and related equipment.

LUCKY in no way condones nor allows copying of copyrighted materials at any group function. Guilty parties will be subject to dismissal.

GENERAL MEETINGS are held the second Tuesday of every month at the Beechmont Community Center from 6:30 to 9:00 pm. Demonstrations are given on both hardware and software at these functions, with occasional guest speakers and a regular question and answer session. Also available to Members Only are Public Domain Program Disks from the Club's Library for a small copying fee.

BOARD MEETINGS are held at the Central Jefferson County Government Center, 7210 Outer Loop, from 7:00 to 9:00 pm. on the Wednesday of the week following the General Meeting.

MEMBERSHIP is \$20.00 a year, per family, which includes access to the LUCKY BBS, the LUCKY Library, a monthly newsletter, and special drawings.

The **LUCKY REPORT** is published monthly and is available at the General Meetings. DEADLINE for submissions to the newsletter is two weeks prior to the General Meeting. It is "published" from a C128 assisted by a 40MB CMD HardDrive, an FD-2000, and a 1571disk drive. Occasionally graphics are captured by a Handy-Scanner 64. Printing is done using PostScript on a Hewlett-Packard LaserJet IIP.

The LUCKY BBS is operated 24 hours a day and is designed with Commodore users in mind. Special access is granted to LUCKY members, but all callers are welcome. The phone number is: (502) 933-5397. You can also E-mail us at [luckykds@nirvana.otherside.com](mailto:luckykds@nirvana.otherside.com) or [gfv@iglou.com](mailto:gfv@iglou.com)

*The views expressed in this newsletter are not necessarily those of the officers or membership of LUCKY, Inc.*

## DISK LIBRARY

by Steve Grassman

To avoid confusion, please direct all questions to the Library Assistants at the other end of the table. **PLEASE DO NOT BOTHER THE COMPUTER OPERATOR!!!** This will minimize mistakes on backups being made. *Thank you.*

To order diskettes, fill in the order forms provided by the Library Assistants. Make sure you **PRINT** clearly the information requested on the form. This will speed up the filling of orders.orders.

## NEWS FROM THE PRESIDENT

It will be June before any one reads this newsletter. For some odd reason, two things happened in April. Number one, I did not get to attend the May meeting. I had another urgent meeting to attend. Vice President Freddie Frazer, however, handled it like a pro. The second thing that happened was that the news article that I sent to our Editor did not reach him. So, do to this unsuccessful E-mail transfer, there was no news from your President in May's newsletter. So as you see, I was batting a 100% that month. But the wheels are rolling to correct this problem in the future.

To cap the news article for May that was written to cover April's meeting...

There was no disk library because Steve Grassman broke his leg. Marilyn Whitworth's husband was sick, and she could not attend the meeting either. Hopefully, both of these guys will recover quickly.

We have new member cards. So when you renew your dues, you will see a beautiful difference. We also discussed the new Noveterm 9.6 modem program.

Phyllis Bunch and I have reworked the "Welcome New L.U.C.K.Y. Members" information sheets. I believe they are much improved and reflect recent changes in the club.

Willis Patten gave a great demo on Print Power.

So much for May's article lost. Now onto the current news of today.

As I said, I had to miss the meeting this month of May. Vice President Freddie Frazer did a bang up job for me and kept the show going. Len Daugherty said that we had two new members and five renewals.

Roger Lawhorn did a demo on the new GEOS-compatible desktop program being developed by Maurice Randall. In all, we had about thirty members present.

Dan Koleski won the \$10 door prize. Go Dan! Our library was open again. Glad to have you back, Steve! Thanks for everyone's help before, during, and after the meeting.

Let's hope the rain ends soon and we can enjoy the summer and have a few good cook-out's. See you at our next meeting!

Larry J. Bailey

## FROM THE EDITOR

This has been a very hard month for me. I timed the last newsletter so that I could finish it before "I left," but I am now separated for a second time in my second marriage. This time it appears to be permanent. Besides the inevitable sadness, there has been a period of disorganization while trying to establish a new residence. None of this helps to create a good newsletter.

Other than one important omission, I was very proud of last month's issue, but this issue is "up in the air." As you will see, I have borrowed several items from other newsletters. I hope that they will feel flattered! I believe that you will enjoy these contents even though some of them may feel a little "warmed over."

At least I got the President's report in this month. Last month's error was mine, and I appreciate Larry's quiet patience in this regard. As he said, we are making strides to be certain that his report will not be lost again!

Most of all, I hope you will give serious consideration to where you want us as a *Commodore community* to be in the coming years. If we are to be strong, then we must treasure what we have and help it grow! Or it will be gone...

I hope you have had a good month in May, in spite of the incessant rains. As you know, I am a mailman. Imagine how much fun I have been having!

Here's hoping June will be a better month for us all!!!

Dale Sidebottom  
*Lucky Report* Editor



### LOST DOG

Only has 3 legs  
Blind in one eye  
Missing one ear  
Has a broken tail  
Recently neutered

Answers to the name of  
"LUCKY"

Cartoon comes from the Portsmouth Commodore Users Group (PCUG).

## LET'S JUST DO IT.

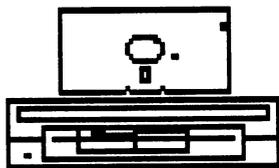
Man isn't that a cool title? So lets do it, okay!

**Cleaning your disk drive.** Here is a short program to help to do just that, clean your disk drive. It will move the read/write head back and forth from track 1 to track 35. This will maximize the potential of your cleaning disk, and provide a back and forth cleaning motion as well as that of the motor spinning.

If you have a drive with an address other than 8, change line five to U = (your drive number). To change how long the program runs, vary the loop in line 20 (each pass through takes about 10 seconds).

To use it, load the program, prepare the cleaning disk per the manufacturer's instructions, insert the cleaning disk into the drive, and enter RUN.

```
5 U=8
10 OPEN 15,U,15
15 OPEN2,U,"#"
20 FOR J=1TO4
30 PRINT#15,"U1:2 0 1 1"
40 PRINT#15,"U1:2 0 35 1"
50 NEXT J
70 CLOSE2:CLOSE15
```



Another good subject is:

**Defeating Program Protection.** Now I have your attention, right? If you every try to list a program and the listing terminates suddenly with an empty REM statement followed by a syntax error, the cause is a shifted L following the REM. You can clear up the list disablement by moving the cursor to the colon, then using the space bar to delete the colon and the REM.

Your program should then list perfectly, and unless the program protection was especially sneaky, it should run perfectly, as well.

**Now let's discuss a printing HINT.** When you know you will be making a printed copy of a program you are writing, use character codes (CHR\$) for such functions as SCREEN CLEAR and CRSR DOWN, so your printout will not be muddled with unreadable black dots.

SCREEN CLEAR, for expanple, would be:  
**PRINTCHR\$(147)**

It may cost a bit more memory, but it will make your program easier to read and debug.

**FROM THE ROOM DOWN UNDER.**

by Larry J. Bailey

## C128 TIME OF DAY CLOCK (TOD)

By Rodger Darvis, "Commodore MailLink-Meeting 64/128 Users Through The Mail," May '96, as printed in Random Bits, Newsletter of NORthern VirginiACOMputers, June '96

I know I have seen the following question asked in one of the Commodore publications, but I can't seem to remember where or when. A friend once told me that a person's memory is the first thing that is lost as one grows older -- but I can't remember what is lost after that . . . ???

Anyway, the question went something like this: (I'm paraphrasing) I use a C128D and my word-processors of choice are GeoWrite and The Write Stuff. Both of these programs show a clock in the upper right hand corner of the screen. GeoWrite has a clock that can be set to the time of day while TWS has a clock that starts at zero and counts the hours, minutes, and seconds, from the moment it boots. Recently, I have noticed that neither of these clocks are running. Can you tell me why, and what can I do to get them running again?

I waited patiently, hoping that someone would answer this question because my C128D had the same problem. Since I can't remember where I read the original question I don't know where to look for the answer. So, while installing floppy drive device number switches on my computer (but that's another article!), I decided to try to track down the clock problem.

**UPON INVESTIGATING, I LEARNED THAT THE C64 AND C128 BOTH HAVE TWO CLOCKS.**

One is called the "Jiffy Clock", (which is an internally generated clock that can be used within BASIC programs by utilizing the reserved variables TI and TIS. This clock ticks in what are called "jiffies", which occurs every 1/60th of a second, and may be interrupted whenever the Interrupt ReQuest (IRQ) line on the CPU is halted. This can occur under various situations; for example, using a Datasette to save or load a program will halt the "Jiffy Clock".

The other clock, called the "Time of Day" clock (TOD), is controlled by the electric utility's power line frequency (60 cycles per second in the US) and should be present as long as the computer is powered up. The signal to run the TOD is tapped off at a transformer on a 9-volt power supply and is then fed to two Complex Interface Adapter chips on pin #19. Sinc the TOD is driven by the utility line frequency, it is more accurate than the "free running Jiffy Clock", plus it counts in tenths of a second instead of "Jiffies".

Investigating the circuitry further, I found a one-amp, 250-volt fuse (f201) located on the C128D's internal power supply which provides overload protection for the 9-volt line. This fuse also provides a link for the power line signal to travel to the CIA chips.

Upon inspecting this fuse closely, I found that it was "blown". Even with the fuse burnt out, the computer seemed to show no (other) symptoms other than the clock problem. By replacing the blown fuse with a new one, the TOD signal was once again present on the CIA chips.

I booted The Write Stuff, and sure enough, the clock was ticking away. I also checked out GEOS, and I again know when I'm late for dinner. If your C128D exhibits the same clock problem and you decide to try this fix:

**Remember To REMOVE THAT AC POWER CORD BEFORE YOU REMOVE THE COVER!!!!**

# Is It Time to Circle the Wagons?

by K. Dale Sidabottom

There have been many interesting developments in the Commodore community in the last month. Some have been disturbing.

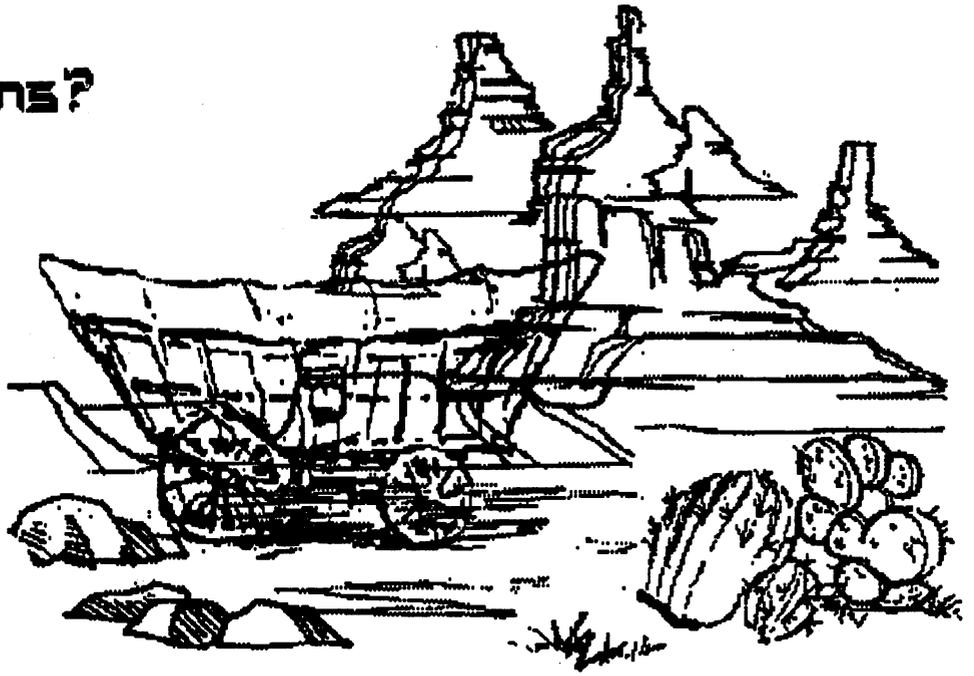
Perhaps the one that hit me hardest was the discovery that *Commodore World* has had to scale back its magazine slightly in order to keep it going. At its highest peak, *CW* had over 4000 subscribers. That was over a year ago. Today they have a little less than 3000.

In order to find out why so many renewals went unanswered, they contacted over two hundred by phone and discovered that 70% had left Commodore or were using another computer and were not interested in keeping their subscription. Twenty percent were glad to be reminded and renewed their subscription. Still, it is sobering to realize how many have moved over to another platform in the last couple of years. Perhaps it is not really surprising to us here at LUCKY, but it is sobering, nonetheless.

Why have these changes taken place, and what does it mean to us? I believe the changes have taken place for two reasons. One is the Internet. Many of us want to see pictures and hear sounds when we "travel" the Internet. This requires SLIP or PPP, both of which provide graphic capabilities. The Commodore is capable, but no program has yet been written to provide access to a graphic interface on the World Wide Web.

Fortunately, we now have the book by Gaelyne Gasson, "The Internet for Commodore 64/128 Users." With it we can really get anything that is important on the Internet. However, some of us will do it the easy way if the opportunity presents itself.

That opportunity is easier now than ever as PC prices seem to be dropping to the floor. I wanted to get a laptop to be a "slave" to my Commodore. I mean, I wanted to be able to use it for word processing, regardless of where I might be, and then later send the text files to my C128 for use in these articles. I have found that I can purchase one for as little as \$100! If I want one with color and Internet



capabilities, that would only cost me about \$300.

Commodores are not the only "cheap" computers anymore. I have often said that buying an MS-DOS computer and keeping it for four years is like buying a Commodore because it is so quickly becomes out-of-date. The falling prices of PC's would seem to validate this view.

What does this mean to us? First, it means today's users stay with Commodore because they enjoy it, perhaps even because they love its challenge. I believe that the Commodore still offers the best value because what is good **STAYS** good. We often say that "the cream rises to the top." It does, but only when it has time. The Commodore has been around long enough to let the cream come to the top. We, therefore, know which programs are really good and do not have to waste our money on the mediocre.

If you buy a PC, you begin to play "the game." The software passes you by and you have to decide how much you want to spend to try and keep up with new developments. In most cases, the companies try to make you unhappy with your purchase at the earliest possible moment.

In the Commodore community, we work hard to make your equipment last as long as possible. Strangely, although there are several wonderful products on the market that will boost the performance of your C64/128, the thing that you may spend the most of is patience. Persistence, stubbornness, and perseverance...these may be even more important than \$5's, \$10's, and \$20's.

I like using the Commodore because I could not spend a huge amount of money on it, even if I wanted to! PC users often

spend \$6000 or more. You and I can spend just \$700 and turn our Commodore Model-T's into LTD'S!

The company that makes this possible is Creative Micro Designs (CMD). In many ways, they have become the glue that holds the Commodore community together. Some of you may say, "Dale, that's not true. We could survive without CMD!"

That is a moot point. The real question is this, "If the Commodore community has lost over 25% of its members in the last couple of years, how many would we have lost if we had not had CMD?"

When I heard about the lost in subscribers, I called Doug Cotton, editor of *CW*, to ask what it might mean. Did this information go out as a plea for help or a wake-up call? He said it was neither.

"We wanted to explain why we were making changes in the magazine. *CW* is necessary to the Commodore community. It is the only place where some vendors can advertise. We are doing everything possible to keep it in production."

**Is It Time to Circle the Wagons in Support of the Commodore?** Yes! It sounds like a wake-up call to me, and we would be foolish to ignore it.

I use the metaphor of circling the wagons, because it means "protecting what you already have!" We cannot move forward unless we first act to protect the things that are already precious to us.

One of those, I hope, is *Commodore World*. It is the only glossy-print national magazine we have, and I hope we will increase our support for it here within this club!

It also means investing in those products and those companies that we want to continue supporting us. This is one way that we, as members of the Commodore community, can take an active role in protecting what we love and enjoy!

Another way to do this is to speak out when among friends and acquaintances about our Commodore hobby. It used to be that people made fun of Commodore users. I have discovered that this seldom happens anymore. So many PC's that once cost thousands of dollars are now rotting in the landfills that people are beginning to understand that knowing how to use what you have is even more important than the brand name!

Our challenge is to continue to learn to master what we have and to seek to improve upon our current performance. It is the proud heritage of Commodore users everywhere that we keep our machines longer, until we know them thoroughly. Maybe that is part of what makes Commodoring so much fun for so many!

Again, all this fun is going to be lost, or at least drastically reduced, unless we support and protect what we already have. If you haven't subscribed to *Commodore World*, do it today. Simply call 1-800-638-3263. It will be a good investment, and it's a heck of a lot cheaper than a Conestoga wagon!



## IMPROVING YOUR MEMORY

by Dale Sidebottom

As developers create new and better products for the Commodore, they continually fight the slow access speed of a stock Commodore. This is natural as programs become larger and more complex as time goes on. *Also natural is the developer's need for speed.* That is why you need a RAMLink or an REU with your Commodore!

With the need for fast access memory becoming more prevalent, a RAMLink is a good choice. A RAMLink with 1 megabyte of memory is \$190. Replace that with 4 megabytes (MB) and it becomes \$230. However, not everyone is willing to spend \$200 or more for fast access memory.

Many of us have used Ram Expansion Units, called REU's. For many years, nearly half of the GEOS Club users depended upon these to make GEOS programs more efficient. But these REU's have become rarer than hen's teeth.

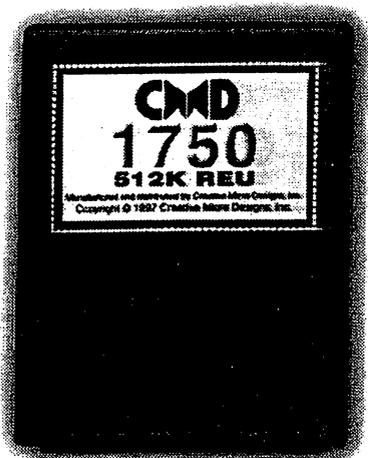
Until now!

CMD recently was able to purchase 400 of the special custom logic chips that are at the heart of the Commodore REU. That means that they can produce as many as four hundred REU's, but no more!

CMD plans to sell two models. One has 512K of memory and the other has 2MB. The serious user will want the 2MB model called the 1750XL. If you only need to back up a 1571 or 1541 drive, the regular 1750 with half a megabyte will do fine.

The prices and other information are on the opposite page. Remember, the REU requires a special logic chip and there is just a limited supply. Already eighty REU's have been pre-ordered. There are no more than 320 left. If you do not own a RAMLink, give serious thought to making one of these "babies" your own!

# CMD Introduces Two New Ways To Improve Your Memory...



The CMD 1750 REU: \$99.00

Like the many other products made by CMD, our new 1750 and 1750XL come complete and ready-to-use. What's more, they come with the kind of quality our customers have come to expect from all of our products. But because we have a limited supply of Commodore REC chips, these products will only be available while supplies last. If you want one of the highest quality Commodore-compatible REU's ever made, you'll need to act quickly.

### Special Offer

These new REU's will begin shipping in mid-June. But because you're a preferred customer, we're pleased to extend this special offer to you: Place your pre-paid order for a 1750 or 1750XL by June 15, 1997, and we'll give you \$10.00 off our regular retail price for these products. This means that for only \$89.00 (plus s/h) you can own a brand new CMD 1750, or for \$129.00 (plus s/h) you can get the CMD 1750XL. Just call us at 1-800-638-3263 with your credit card, or fill out the form below and mail it in to CMD with your payment. But hurry, or you may just miss out on this excellent opportunity!

If you use programs like GEOS, Pocket Writer, Novaterm or any of a number of other applications that support a Commodore REU, then you may be missing out on powerful and convenient features that will speed your productivity. While CMD's RAMLink offers powerful features, it is more expensive and doesn't directly replace Commodore REU's in some applications. With REU's and even the SSI 1750 Clone no longer available, many users just haven't had an inexpensive RAM choice... until now.

CMD is pleased to announce that you needn't go without any longer. Our new 1750 and 1750XL REU's work with every program that supports any of the Commodore REU's. The CMD 1750 offers 512K of fast DMA controlled RAM, while the CMD 1750XL provides a whopping 2 Megabytes for programs with extended REU support (Novaterm 9.6, ACE, GEOS and others). Both models incorporate Commodore's REC Controller chip to provide guaranteed compatibility and come in a standard cartridge—much smaller and less power-hungry than a Commodore REU.



The CMD 1750XL REU: \$139.00



\$34.00  
Plus s/h



\$39.00  
Plus s/h

### Need a Cartridge Port Expander?

Want to use a new CMD 1750 or 1750XL on your computer with a SwiftLink, Turbo232, or other existing cartridge? CMD's EX3 and EX2+1 cartridge port expanders provide three switchable ports; all three are vertical on the EX3, while the EX2+1 has two vertical and one horizontal.

**CALL 1-800-638-3263 TO ORDER**

Please send me the CMD items indicated:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Prov. \_\_\_\_\_ ZIP/PC: \_\_\_\_\_

Country: \_\_\_\_\_ Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

Payment:  Check  Money Order  Credit Card (fill out items below)

Visa  MasterCard  American Express  Discover

Card Number: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Signature: \_\_\_\_\_

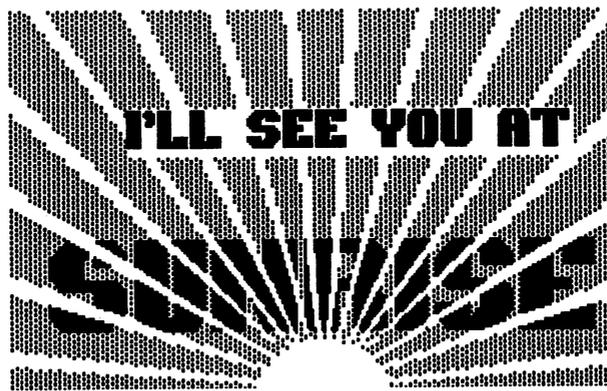
| DESCRIPTION                                       | PRICE    | QTY | AMOUNT |
|---|----------|-----|--------|
| CMD 1750 512K REU                                 | \$89.00  |     |        |
| CMD 1750XL 2MB REU                                | \$129.00 |     |        |
| CMD EX2+1 PORT EXPANDER                           | \$39.00  |     |        |
| CMD EX3 PORT EXPANDER                             | \$34.00  |     |        |
| Continental U.S. Shipping/Handling (2 items max.) |          |     | \$7.75 |
| Total   |          |     |        |

Mail to: Creative Micro Designs, Inc., P.O. Box 646,  
East Longmeadow, MA 01028-0646

# HAVING FUN WITH GEOPAINT

by K. Dale Sidebottom

GeoPaint is a terrific graphic arts program. The Commodore screen has 80 dots per inch (dpi) across and 72 dpi up and down. Within this resolution, GeoPaint provides all the tools you need to do some really "neat stuff."



Next, move to another section of your GeoPaint document so that you have a "clean" screen to work with. Select the Text icon and then search for a very heavy font. You normally want to use the heaviest readable font you can find. When you choose the largest font sizes, a dialogue box often pops up saying,

## The

### REVERSE-INVERSE Process

GeoPaint allows you to do some amazing things by using what I call the reverse-inverse process. You set things up by using the *invert* command. Then you bring the elements of your design together. Last, you *reverse* the inverse in order to create the final product.

Does this sound complicated? Either way, it is still a lot of fun. Imagine that you want to create a design called "SUNRISE" to spark a letter or decorate a gift. The photo scrap above illustrates how it might look.

The above example was created (in 64-mode) by combining three elements: the background sky, the word "SUNRISE," and the rising sun. You can duplicate this design by opening up a new file with GeoPaint or GeoPaint 128. Select the Faucet icon and click on the screen. Your whole screen is filled solid black, isn't it!

You could click on **Undo** in order to clear the screen, but I want you to double-click on the **Edit Box** icon instead. (It looks like a box made of dotted lines.) By double-clicking on this icon, you can select the entire screen quickly. You will be doing this a lot! Whenever I say, "Select the entire screen," I mean that you should double-click on this icon. (C128 users will only be able to select that portion of the screen not covered by the toolbox, but let's not get picky.) Now that you have selected the entire screen, click on the *clear* box, and the screen will be completely cleared.

Now click on the Current Pattern Indicator in lower left of your screen. Now you can choose from 32 patterns. I suggest a very light one, since we want a light morning sky. Click on your choice and now select the Faucet icon again. Click on the screen and you have completed the first element of your design!



"Sorry, font it too large." Not to worry, just select a smaller font size and type in "SUNRISE." Remember that clicking on **BOLD** may help enlarge the text.

Below are some of the fonts that I experimented with.

**SUNRISE** BOALT 12 pt.

**SUNRISE** OXFORD 16 pt.

**SUNRISE** Yellowstone 16 pt.

**SUNRISE** Cumberland 16 pt.

**SUNRISE** Montreux 15 pt.

**SUNRISE** GREENWICH 21 pt.

When you have chosen your font and spelled out "SUNRISE," you are ready to "cut it out." Click on the **Edit Box** again and create an edit box around the word "SUNRISE." Click once just outside the upper left corner of the word and again outside the lower right corner. When the box is properly enclosed the word "SUNRISE" only, click on the word **edit** in the command bar above and select **cut**. Your word has now disappeared into a photo scrap.

Next select the entire screen (double-clicking on the **Edit Box** icon) and again click on the word **edit** above. Only this time you will need to choose **paste**. Suddenly a wondrous thing occurs. This dialogue box pops up giving you three options for pasting in your "word." (1) Center it as it is, (2) Scale to fit while keeping the same proportion, or (3) Scale *and stretch* to fill the available space. Since we want to keep the same proportion, choose option two. This will enlarge the word without distorting it.

Now that you have enlarged the word, you may want to smooth it out some. Remember when you paste it in, you can use the smoothing option if you want to. Using

pixel edit, I would clean up the letters so that they look less jagged. Below is a sample of my original, enlarged word before I smoothed out the jaggies.

# SUNRISE

When your "SUNRISE" design is ready and centered in place, make a photo scrap of it by selecting the entire screen, then **edit**, and **copy**. Move to the portion of your document that has the background sky and paste the word over the sky. Before moving on, click on **invert** below. This will reverse the background and foreground colors and prepare your design for the final phase. (Figure 1)

Move now to another portion of your **GeoPaint** document to get a "clear" screen again. This time we are going to make the sun rise!

Click on the Filled Ellipse icon and make a circle or ellipse on your screen. Now use your **Eraser** to cut away the lower half. Click on the **Edit Box** again and enclose the semi-circle so that you can move it to the bottom of your screen. Use the **Ruler** icon to measure and make sure it is located in the middle at the bottom of your screen. If you are in 64-mode, the middle is 132 pixels from either side.

Now click on the **Line** tool. This lets you click in the center of the "sun" and then at the edge of the screen to create "rays" of sunlight. Notice that I put two lines close together creating thin rays, which can then be filled in using the **Faucet** tool and **pixel edit**. Remember, you only have to make half of your design. (Figure 2) Using the **Edit Box** tool again, you can enclose half of your design, click on **copy** below, and duplicate it on the other half. While still in edit mode, click on **mirror X** below and your design of the morning sun will be complete. (Figure 3)

Now, photo copy this entire screen as before, then move to the original portion of the screen where you have the sky and word "SUNRISE" inverted. Paste your "morning sun" on top of this design (Figure 4) and then click on **invert** again. By reversing your inversion, you should have a product that looks a lot like the design at the head of the article. If you want to personalize it further, you can even add text, as I did.

### Important Tips:

Remember to save your photo scraps in an album so that you can replace any part of the design if errors occur. Also, remember that if you have saved the design to disk previously, any errors you make now can be erased by clicking on **file** and then **recover**.

When you are "cleaning up" a word that you have enlarged, remember that you never need to clean up the same letter twice! You can always use the **Edit Box** tool to enclose any individual letter and **copy** it to another position. If you are a little off, just click again on the upper left hand corner and then use the cursor keys to move the edit box one pixel at a time in any direction.

Figure 1

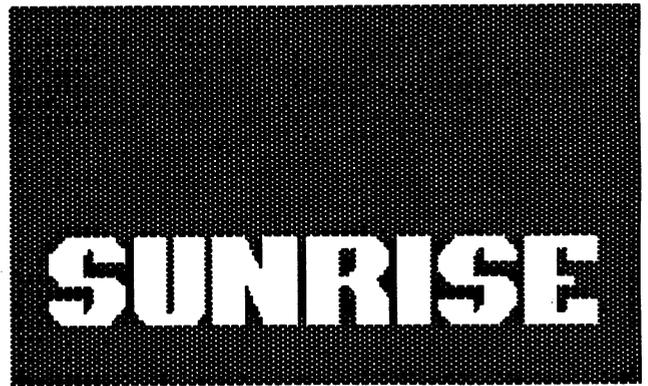


Figure 2

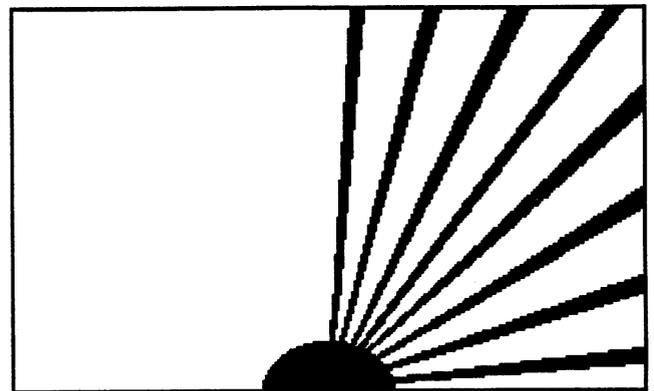


Figure 3

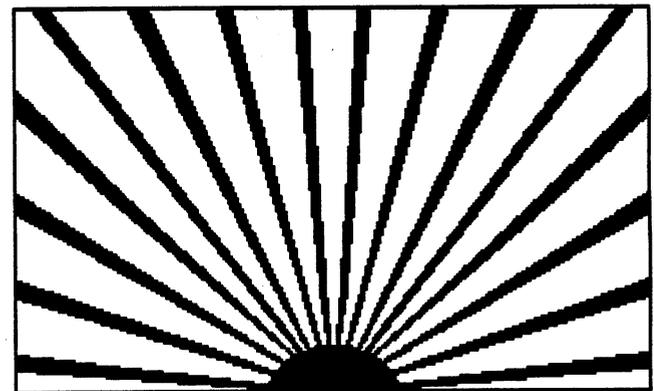


Figure 4



# COMMODORE INFO

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## FREE TELEVISION SET

by Dick Trissel

How would you like to have a free TV set? I just got one. My old VCR quit VCRing and a friend gave me a CBM 1702 composite monitor. I connected my TV cable service to the VCR cable input jack, and then connected the VCR video and audio output terminals to the 1702 front video and audio input terminals with two RCA phono plug cables. I can now use the VCR remote control to change channels. And the display is better than most 13 inch TV sets. That's because computer monitors have to have a sharper display than TVs.

Why does this work? Because the tuner section of the VCR is an excellent TV tuner and very seldom is the cause of discarding a VCR. It's the tape transport or record/playback electronics that fails. And the cost of repair is nearly as much as a new VCR (I replaced mine for \$170). The CBM composite monitor was made to be used for the Commodore 40 column display (C-64 or C-128 40 column mode). It has no value to PC and MAC users. In fact, this capability to view TV on a Commodore monitor is now being emulated by the PC users--for a nominal cost of a few hundred dollars for an adapter.

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## 1571 DISK DRIVE REPAIR

by Dick Trissel

The 1571 disk drive, like the C-128 computer, is a very stable and reliable piece of hardware. However, there are three hardware weak spots (after you replace the old ROM). The least significant is the little pin on the disk latch that lowers the top head. It slips out and has to be slipped back in, requiring removing the upper case half (after removing four screws from the bottom). A little dab of cement on the front of the pin prevents a reoccurrence.

Next is the tension on the top head which gets impeded by a little brass cone that gets back by the insertion of a disk. The cone is to keep the

heads from touching if there is no disk in the drive and you attempt to lower the top head. Either lubricate the cone or put a spacer on the cone shaft so the disk pushes it back further.

Sometimes the top head just needs more spring tension so it presses more firmly on the disk. This tension can be increased by placing the anchored end of the coil spring into the higher tension notch in the mount. This amounts to winding the coil spring about an 1/8th of a turn tighter.

The real bugger is the stepper motor drive strap anchor to the head assembly. The strap is "staked" to the head assembly by two plastic tabs on the assembly sticking through holes in the strap. These tabs wear and allow the strap to move slightly before moving the head. This manifests itself as apparent head misalignment, but it is not correctable, obviously, by adjusting the stepper motor in the normal alignment procedure. My solution is to CAREFULLY pry the strap away from the head slightly, and apply a dab of cement between the strap and the head. A little on the pins is good, too. I use SHOO-GOO (SHOO-GOO to the rescue!). Of course, I use SHOO-GOO for all cementing jobs--it will stick most anything to anything.

Usually pushing the head back against the strap holes will result in the alignment being correct again. You can tell in advance which position is desirable by using the old Gazette program "speed/align" from the Beginner's Utility disk you were given when you joined the club. Put tension on the head while the program is stepping through the tracks and notice the effect on the program displayed test results.

By the way, the program will test the alignment of either a 1541 or a 1571 bottom head (side one), but it will only test the speed of a 1541. Don't attempt to use the speed test on a 1571.

We thank the Mar/Apr '97 issue of SCUGlebutt, the newsletter of the Spokane Commodore User Group, for these articles.

# It Just Happened. . .

by Jim Butterfield

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I'm often asked about two features of Commodore machines. The first is the non-standard code, Commodore ASCII. . . why did Commodore choose it? The second is the STOP key. . . why doesn't it work during user INPUT? Oddly enough, the answer to these two is related, and it's intertwined with the way personal computers grew in the early days.

Back in the renaissance days of 1975 and 1976, personal computers were mostly home brew. You'd buy a mess of chips and would spend long hours attaching them to a circuit board. Sometimes you'd design your own system, and sometimes you'd buy a kit. Even with a kit you'd customize your machine, often based on what was available and cheap in your neighborhood. Some hackers soldered their connections, others used an almost-forgotten construction technique called "wire wrap". Back in those early days, each computer was unique, reflecting the style, pocketbook, and constructional skills of its owner.

One of the biggest problems - technical, financial, and practical - was how to attach input/output to the computer. Keyboards could be found, although they were generally a collection of "uncoded" switches, so that the hobbyist had to figure out hardware and software methods to connect them. Output was more of a problem. . . video displays were not common, and the logic and circuitry needed to allow character display on a CRT was not standardized. Many of the early "klooge" displays had barely enough logic to display a range of 84 characters. This would allow upper case alphabets, numbers, punctuation. . . but no lower case.

"Rich" users would find a way to obtain a teleprinter. Suitable scrounging might turn up a Teletype (tm) model 32 or 35, which used ASCII code. . . upper case only. These terminals were also used by business for "time-sharing", where a number of users submitted work to a central computer from their terminals. Again, these devices had no lower case, only capitals. . . and shaped our concept of the nature of a computer terminal.

Now comes the first Commodore machine. . . the PET 2001, with its tiny keyboard and built-in cassette deck. The only alphabetic characters

that seemed to be on these machines were upper case (capital letters). . . a carry over from teleprinter machines and early Basic concepts. The competing machines of that generation - the Apple II and the TRS-80 model I - had only upper case letters.

In fact, Commodore was ahead of its competition, in that it did have lower case in the first machine. These lower case characters were not visible, unless you knew to command POKE 59468,14, at which time many of the shifted graphics characters would change to lower case alphabets. Thus, the heart graphic would change to lower case (NOT upper case) S.

Now: at that time, the character set used by Commodore was mostly true ASCII. An upper case A, for example, is code 65 - correct ASCII. This is still true of Commodore machine in graphics mode.

But users started to get into word processing, and it didn't seem natural to use the shift key to get lower case. You expect to press SHIFT

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*Commodore were not  
engaged in some  
sneaky plot. . .*

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for upper case. And in their next model, Commodore conceded the point by flipping upper case with lower - in text mode only, of course. As a consequence, compatibility with ASCII was greatly reduced.

That's how we lost it, and that's why we need to translate characters when sending to a modem or to a non-Commodore printer. Commodore were more or less pushed into it during the evolution of their computers. Did they have any alternatives? Yes, but none of them seem good. They could have completely switched around the character set, graphics and all. . . and would have lost compatibility with early machines. They could have converted the graphics set so that in graphics mode, you would have only lower case alphabets. . . that would look terrible on graphics screens. They could have ended up with the clumsy system on other computers whereby you cannot write a program unless you put the Shift Lock down.

The important point is this: Commodore were not engaged in some sneaky plot to invent

their own character set. They just ended up being maneuvered into that position.

About the STOP key. Why doesn't it work during a user input? Again, it goes back to the teleprinter machines of early computers.

The pioneer microcomputers were often hooked up to a teleprinter or other serial device. ("Serial", here, means something like the RS-232 interface - NOT the Commodore serial bus). They were so constructed and programmed that they could do only one thing at a time. They could choose one of: (a) watch the keyboard line for incoming characters; (b) do other computing. They could not do both. When Microsoft(tm) Basic was written for these early computers, it was known that Basic must "freeze" and give up control the the system in order to get input. In other words, once you typed RUN on your teleprinter and pressed RETURN, your keyboard was dead until the computer decided to come back and look at it again. Basic would not look at the keyboard unless the program stopped or an input was required.

The STOP key was often on the computer itself, not on the keyboard. The program to check this key was implemented as part of Basic. As your Basic program was running, the interpreter would check the STOP key at frequent intervals and stop the program if the key were found pressed.

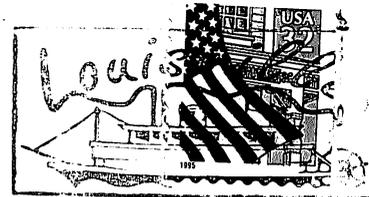
But when Basic executed an INPUT statement, it would suspend operation. The computer needed all the time available to watch the keyboard, and Basic execution would be "frozen" until the desired input had been received. Naturally, Basic wouldn't be checking the STOP key during this time.

In early days, only the Commodore computer left the keyboard "alive" while Basic was running. It did that with a clever system (still used) called "interrupt" which allows Basic and keyboard to run virtually at the same time. So - on Commodore machines only - it would have been possible to watch the STOP key, even during input.

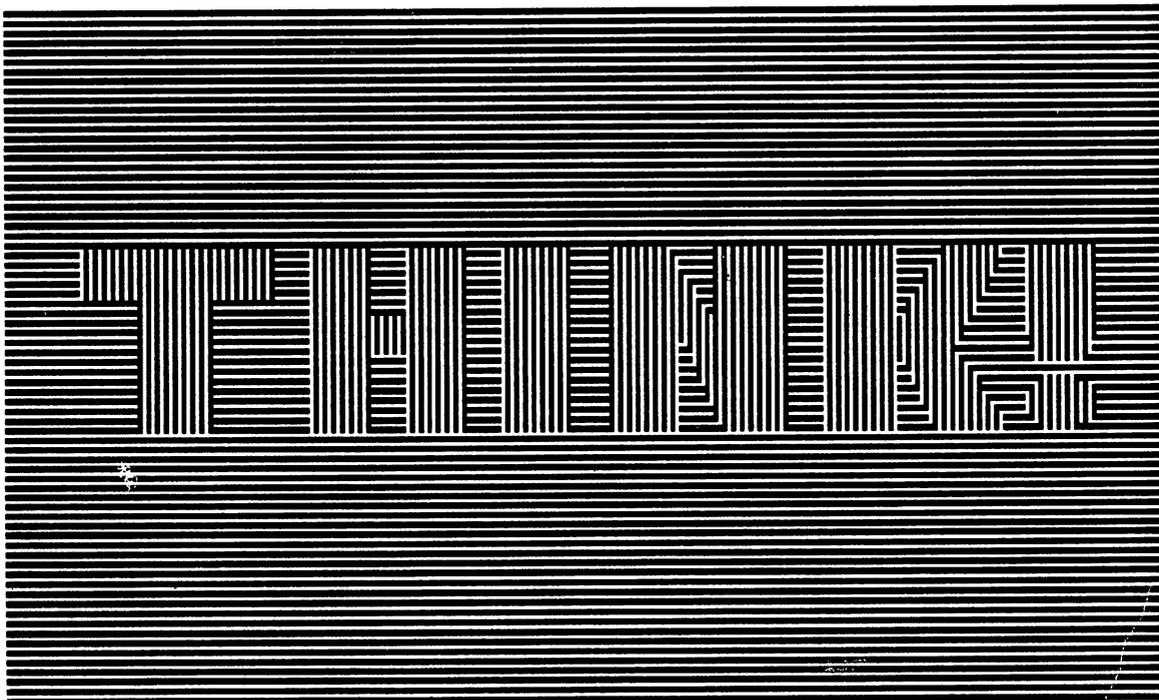
But Commodore purchased their Basic, which had been written for the "standard" machines of that day. So Basic didn't know of this advanced feature. . . and the STOP key did not work during input.

Funny, isn't it? It's as if the early Commodore machines - with built-in lower case and interrupt keyboard servicing - were so far ahead of their time that they were hampered by these advanced features.

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