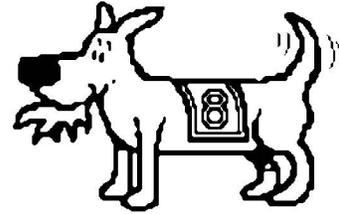


# The Zero Page

The newsletter of the Commodore Users of Wichita  
For the sharing, learning, and love of Commodore computers"



Eight-bit keeps takin' a byte  
out of Commodore computing

Number 28, February 1996



## Random Access

by Dale Lutes

Don't look now, but tax time is just around the corner. I can always tell when I start getting inquiries about the availability of the *Tax Survival Kit*. In case you aren't familiar with this excellent piece of software, the *Survival Kit* was written by Wichita resident and CUW member Harv Harris. It runs on the C-64 in 40 columns and the C-128 in 80 columns. Both versions are included on the same disk. It supports form 1040, schedules A-F and SE, forms 2106, 2441, 3903, and the Kansas state form.

Now once upon a time, I was skeptical about using a tax program, *any* tax program on my Commodore. But with my tax preparer's fees going higher and higher, I decided to give Harv's program a try last year. My income and deductions had stayed pretty stable in 1994, so I was looking for my total tax and refund calculations to come out about the same as the previous year. And don't you know it - they did! For a *lot* less money and only a little more work on my part, I did as good a job with my return as my tax preparer ever did.

That's why I am sorry to report to you that this may be the last year for the *Tax Survival Kit*. I spoke with Harv briefly when I picked up the master copy at his house prior to our last club meeting. The decline of Commodore user groups nation-wide coupled with probable changes in the tax laws may make it prohibitive for him to continue supporting the software. So I am encouraging all of our members who rely on the *Tax Survival Kit* to let Harv know how much you value his work.



On looking over the January *Zero Page*, I noticed a serious omission! I forgot to extend the club's thanks to Mary Wilson for once again handling the preparations for our party in December. So, Mary, our hats are off to you for a job well done! Thank you!



A lot of us are fond of drawing comparisons between GEOS and the MacIntosh operating system. You may be interested to learn that, from a programmer's point of view, there are also strong similarities between programming for GEOS and for the X Window system. X Windows/Motif is the industry standard window system supplied with most high-performance Unix workstations from companies like Digital Equipment, Hewlett-Packard, SUN Microsystems, and others. I attended a class at the end of November which included topics in event-driven programming with Motif widgets. As I listened to the lecture, I

instantly saw the GEOS connection! The class re-kindled my interest in GEOS programming, so I have since dusted off my half finished GeoMille game which I hope to have ready in time for the June *Disk O'Quarter*.



I am very pleased to include a new column in this month's newsletter. Moe Shouse's *Rear View Mirror* is a fine addition to *The Zero Page*. Be sure to check it out!



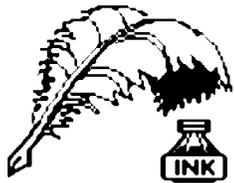
And finally... Thanks to everyone who participated in my disk utilities demo last month. The questions and feedback that I get from you makes it all the more enjoyable for me. I hope you had some fun too!

**Next CUW Meeting:  
Saturday, February 10  
1:00 - 5:00 pm  
1411 South Oliver**

Robert Bales will show us how  
easy it is to use the HD series of hard  
drives from Creative Micro Designs.  
Then, Jerry Shook will demonstrate  
Harv Harris' *Tax Survival Kit*.

## Your CUW Steering Committee members are:

Arlen Gould	Chair
Marie Bóth	Vice-Chair
Robert Bales	BBS Representative
Francis Catudal	Public Domain Librarian
Shaun Halstead	Internet Representative
Dwayne Howard	geoSIG Chairman
Dale Lutes	Newsletter Editor
Don McManamey	Disk Editor
Jerry Shook	Quartermaster



## Don's Digest

by Don McManamey

Perhaps it's just a bit early to be talking *Disk O'Quarter* but only from the point of view of receiving and not preparing. In fact many good things are happening

that you shall see in the March issue. First, a new look. It will have a new larger label which is made especially for floppy disks. We have added the LOAD"MENU",8 to the label and it is now laser printed. The changes are not just cosmetic. For the first time we have had a truly collective effort in gathering programs. Six people got together and pawed over some nice software and came up with what might be one of the best issues yet. Participants were: Nate Dannenberg, Marie Both, Jerry Shook, Dwayne Howard, Dale Lutes, and yours truly. Now I must add that several have made submissions in the past. In fact, Dale Lutes has provided great quantity of quality software and has created a great deal himself. I should say that we owe much of what the *Disk O'Quarter* has become to Dale. We should all tell him thanks!) One thing to keep in mind is that no one can paw through all of the public domain, shareware and freeware by himself and continue to provide what you want on an ongoing basis. Please make submissions, but do keep it down to one or two programs that you think are really nice at one time. If you can, provide the docs or at least tell me what to expect so I can write them. Remember that it must be things which can be copied legally. If you dump several disks full on me at one time, it may take a while for me to search through it. I'll try not to lose or forget it. If all goes well, we will have *GeoMille*, a Geos version of Mille Bornes, on the March issue. If it is not ready for March, I have been assured that it will be ready for the June issue so keep your eyes peeled.

I have also been working on a *Disk O'Quarter* sampler that we will send out to prospective long distance members. It shows off some of our creations as well as some good old PD stuff. Any member wanting a copy may purchase one for the usual back issue fee of two dollars. You should know that it contains only things contained on back issues. The real challenge with the sampler disk is to give a fair representation. That is to say that if you put in only your best and perhaps only totally new stuff then people will be disappointed when they get a regular issue. On the other hand, if you don't put in enough new and great stuff that they haven't seen before then they will not see the need to join the club. That is the challenge with every issue, to give things people haven't seen. That is where you come in. I know there is something in your box of disks that most of our members haven't seen and would like to.

Now for a little advice. Recently someone called with a problem which is very old. One tends to think that everyone knows about these things but we must remember that people are getting into computing for the first time and don't know what us old timers know. One of the don'ts of computing is: Don't save anything to a commercially produced disk. If it is copy protected, you may render it useless. Here is what happens. There are many ways to keep you from copying a disk but the one we will use for our example is typical. The producers of the disk put an error

somewhere on the disk where it won't hurt anything. At some point the program looks to that spot on the disk for that error. When it finds the error it then goes on to complete the load process. When you save something to the disk the computer doesn't know any better and saves right over top of the error and wipes it out. Now when the program load reaches this point it does not find what it is looking for and the program crashes. Since you don't know what should be there you can't fix it and so the program is lost. They may take the BAM which the disk drive uses to check what areas are open on the disk and alter it so the drive thinks part of the disk is usable when in fact the program itself knows to look to that spot for information. At any rate if you really want to save to a commercial disk, make a copy and try it with the copy and not the original. Even this is no guarantee because the program may run fine for a while and then crash but at least your original is safe. Somewhere we have a list of do's and don'ts. Perhaps it would be good for one of the old timers to dig it out and we'll publish it.

Membership is still up and things look good for the year ahead. Computing is good cold weather fun. So put on a sweater and let's get in to it. By the way, Software Exchange found Koala Pads for Moe Shouse and me. If you're wanting one, be sure to see Mark and ask. Then drop by and make a nuisance of yourself until he comes across. Good luck and don't be sloppy with your floppy.

Harv Harris' *Tax Survival Kit* for the Commodore 64 and 128 is available once again to CUW members for the special price of \$5.



The program has been updated for your 1995 federal and Kansas state income tax returns. Beat that April 15 tax deadline! See Dale Lutes at the next club meeting for **your** copy.

It is practically impossible to teach good programming to students that have had a prior exposure to BASIC: as potential programmers they are mentally mutilated beyond hope of regeneration.

Edsger W. Dijkstra, "Selected Writings on Computing: A Personal Perspective" Copyright (c) 1982 by Springer-Verlag New York Inc.

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## Rear View Mirror

by Moe Shouse



This is my first try at doing an

article, so I hope Dale doesn't have to spend too much time fixing it. And if I had studied spelling more in school, I wouldn't have this dictionary next to me. I chose the name *Rear View Mirror* because I see a lot of this Commodore stuff as much from a historical view as a matter of function. That is because I didn't get in to computers until about 2<sup>1</sup>/<sub>2</sub> years ago, and all this is really new to me.

And on to the subject, from a historical view. I ran across a program in *Commodore Power Play*, spring 1984. See, I told you it was from a historical view. The program is by Jim Butterfield. Most of us know who Mr. Butterfield is, and we all most likely have some of his work in our disks. The name of the program is *Copy File 64*, and this program is probably his most well-known. But did you know that you don't type the machine language code in directly? You type in a program generator that is a string of data lines and some lines with READS and PEEKS. When you run the program generator, it writes the program. If you made any mistakes, it tells you which line number is wrong. The program generator is only 48 lines long. I had 4 mistakes. After I fixed them, the program generator wrote the copy program and saved it to disk. To me, this is more fun than I have had in a long time. I know this copy program is not the fastest or the most widely used, but I think it is very historic.

Also, in the same magazine, I found a news item about Commodore's two new computers: the 264 and 364. Did they ever really make any?

Eight Bits forever!!!!

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*The Zero Page* is a monthly publication of the Commodore Users of Wichita. The opinions expressed here are those of the authors and do not necessarily reflect the views of the CUW. Unless otherwise stated, articles in this newsletter may be reprinted without permission provided that the author and the CUW are given proper credit.

Meetings of the CUW are scheduled for the second Saturday of each month. The deadline for articles is 14 days prior to the meeting day. Submissions are accepted on 1541, 1571, or 1581 formatted floppy disks. geoWrite, ASCII, or PETASCII files are preferred. In a pinch, paper hard copy will work. Call Dale at 721-0835 or mail your articles to:

Commodore Users of Wichita  
c/o Dale Lutes  
11102 W. 17th Street  
Wichita, KS 67212-1187

In case you are interested, *The Zero Page* is produced using a Commodore 128 and geoPublish. geoPubLaser is used to print the final copy on a PostScript laser printer.

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## The SuperCPU 64/20 Sneak Preview

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The SuperCPU 64/20 is an accelerator module that plugs into the C64/128 cartridge port. At its heart is the W65C816S microprocessor running at 20 MHz, along with 128K Bytes of high-speed Static RAM (the same type of high-speed cache memory found in 486/Pentium systems), 64K Bytes of ROM, and a Complex Programmable Logic Device IC (CPLD).

The SuperCPU is contained within an enclosure approx. 6" wide x 3" tall x 2" deep. The enclosure has an opening for the Cartridge-Port Pass-Thru connector at the rear, exactly in line with the computer's Cartridge Port. The unit is the same width as a RAMLink, and when plugged in between the computer and RAMLink it aligns almost exactly with the RAMLink case. The main circuit board in the SuperCPU mounts vertically, so as to keep the depth of the unit to a minimum. This prevents devices plugged into the pass-thru port on the CPU from extending too far back from the computer. Three easy-to-use toggle switches line the upper front edge of the unit: A Unit Enable/Disable switch; a JiffyDOS Enable/Disable switch; and a speed selection switch. Installing the SuperCPU is simple: just plug it into the Cartridge port. No wiring or jumpers need to be installed inside of the computer.

Operating the SuperCPU requires no special knowledge. The user can perform all computer tasks in exactly the same manner as with a stock system, and still gain the benefit of the greatly accelerated speed. The toggle switches on the unit are clearly labeled, easily accessible, and can be used without having to refer to a manual in order to determine their function. As with CMD's RAMLink, the SuperCPU has been designed to work out-of-the-box with any C64 or 128 computer -- no manual "tuning" adjustments required.

The SuperCPU 64/20 operates with C-64 and C-64c computers as well as the C-128/128-D in 64 mode. The 65C816S processor supports all legal 6502/6510/8500/8502 opcodes, providing a very high level of compatibility with existing software -- including GEOS. The C-64 memory map is emulated exactly by the CPLD, and proprietary write-thru logic in this chip ensures full compatibility with all VIC graphic modes and memory mapping.

To help achieve a high level of performance, all operating system routines are downloaded into 64K of the high-speed Static RAM upon power-up, eliminating the bottleneck caused by ROM-based operating system code (on PC's, this technique is called ROM-BIOS shadowing). 64K of high-speed SRAM remains free for programs -- just like in a standard C-64. In addition, buffered write-thru circuitry (similar to PC cache-controllers) helps the SuperCPU avoid having to slow down when writing data back into the C-64's RAM.

(Continued on next page)

**Additional Features:**

**JiffyDOS:** The JiffyDOS Kernal ROM for the computer is built into the SuperCPU, providing DOS-Wedge commands and enabling high-speed serial transfer rates to and from JiffyDOS-equipped disk drives. A JiffyDOS disable switch is provided so that the SuperCPU can load programs which are not compatible with JiffyDOS. This switch can be used to enable or disable JiffyDOS while the CPU is running, and does not affect the operating speed.

**Pass-Thru Port:** The SuperCPU includes a Cartridge Port Pass-Thru connector which enables the full use of most plug-in hardware devices such as Commodore REU's, RAMLink, Swiftlink, SID Cartridge, GEORAM, as well as some ROM-based cartridges. These devices will work with the CPU running at 20 MHz and will not require a slowdown to 1 MHz.

**REU Compatibility:** The CPLD chip in the SuperCPU includes special DMA transfer logic to provide 100% compatibility with all types of data transfers to and from Commodore REU's. The SuperCPU does not have to be slowed down to 1 MHz in order to initiate a DMA transfer to/from the REU.

**RAMLink Compatibility:** The SuperCPU is 100% compatible with RAMLink, and contains its own version of RLDOS, which will run from the SuperCPU's high-speed Static RAM. The faster RLDOS, along with the efficiency of new 65C816 opcodes will enable the SuperCPU to transfer data to and from all of the memory on RAMLink's RAMCard at speeds which rival the DMA transfer rate of Commodore REU's. Transfer rates to and from CMD HD-Series hard drives connected to RAMLink's parallel port will also be significantly faster.

**GEOS:** Special features include the necessary Configure and driver software to optimize GEOS for operation with the SuperCPU. In addition, an intelligent write-thru hardware circuit designed especially for GEOS effectively eliminates a major performance bottleneck associated with earlier accelerator designs such as the Turbomaster and Flash-8. This design feature, coupled with the 20 MHz clock speed of the 65C816 will boost the performance of GEOS far beyond anything currently possible or imaginable.

**Expansion Capability:** The SuperCPU includes a connector (called the "Rocket Socket") which will enable the user to plug in a CMD-supplied RAM Expansion card (available seperately). This card will have on-board SIMM sockets and can contain from 1 to 16 Megabytes of Dynamic RAM (DRAM). The RAM on this card can be used as either data or program storage. In addition, some or all of this RAM can be configured for use as an ultra-high-speed RAM disk drive.

**Speed Selection:** The speed selection switch provides three options: 1) 1 MHz mode for compatibility with programs (such as some games) that may operate too quickly in the turbo mode; 2) a "soft" Turbo mode which operates at 20 MHz and provides programs with a software speed selection register for switching to a slower speed when necessary; and 3) a "forced" Turbo mode which keeps the CPU in 20 MHz mode regardless of the setting of the software register. This mode is useful for providing compatibility with existing programs that unintentionally alter the software register.

(Note: The SuperCPU performs disk access functions properly in all three speed modes.) The user can change speed modes by toggling the speed selection switch while the SuperCPU is operating.

**Development Support:** CMD is actively seeking developers willing to create new commercial software and/or modify existing software to take full advantage of the SuperCPU. A comprehensive package will be available which will include an assembler which supports all 65C816S opcodes and addressing modes as well as documentation providing pertinent technical specifications and guidelines. This package will enable developers to produce programs which take advantage of the 65C816S's enhanced instruction set, 16MB addressing capability, and additional RAM available on the SuperCPU's optional RAM Expansion Card.

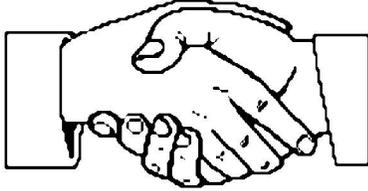
**128-Mode Compatible Version?** CMD has recently announced that a C-128/128-D version of the SuperCPU will be made. This version will offer all the capabilities of the 64 version, but will include additional hardware to allow it to operate in 128 mode.

The SuperCPU 64/20 is slated for release in April of 1996, and the 128 version is expected to release approximately 90 days later. An estimated retail price of approximately \$199 has been announced for the SuperCPU 64/20. The retail price of the 128 version has not yet been announced, but CMD is making every effort to keep the price below \$300. These prices are, however, subject to change prior to release. Advanced orders with a \$50 deposit are being accepted now for the SuperCPU 64/20, and will guarantee delivery from the first production run at a price no higher than the announced estimated price. Contact CMD Sales at 1-800-638-3263 to place your order. Advanced orders for the 128 version will not be accepted until CMD has firm price and design information on this version.



## The Helping Hand

This column lists those users willing to share their experiences and knowledge with other club members.



### Music, Telecommunications

Robert Bales

### Programming

Dale Lutes

### Astrology, Biorhythm

Marie Both

### Printing in Color

Don McManamey

Jerry Shook

### Labels

Jerry Shook

### Cards, Posters & Signs

Fred Earley

### Word Processing & Desktop Publishing

Fred Earley

Don McManamey

Jerry Shook

Dale Lutes

### GEOS

Fred Earley

Dale Lutes

### Family Roots

Maxine Ulrich

### Helping Hand Volunteers

Robert Bales 744-2580

Marie Both 262-2338

Fred Earley 722-4044

Dale Lutes 721-0835

Don McManamey 265-2560

Jerry Shook 776-2683

Maxine Ulrich 838-8606

Let us know if we may include your name in future Helping Hand listings. If we don't have a category for you already, we'll add one!

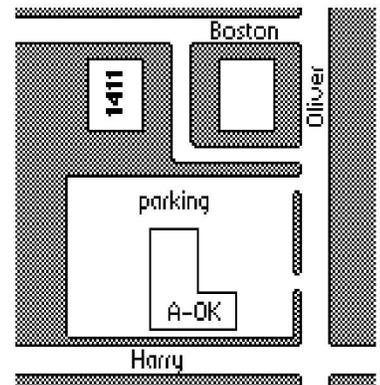
## February Meeting Agenda

1:00 - 2:00	Equipment setup, informal meeting
2:00 - 2:45	Business meeting
2:45 - 3:00	Break
3:00 - 4:00	Feature demonstration
4:00 - 5:00	Meeting over, informal gathering, equipment teardown



The Commodore Users of Wichita is a club dedicated to "the sharing, learning, and love of Commodore computers." Meetings are held on the second Saturday of each month from 1-5pm at 1411 S. Oliver, one block north of the corner of Harry & Oliver. Anyone who owns or uses a Commodore computer system is welcome to attend.

Family memberships cost \$15 per year. Members receive a monthly newsletter, a quarterly disk publication, access to an extensive library of public-domain software, and the right to vote on matters of club policy. Other membership options are also available. Contact any of the officers (listed elsewhere in this newsletter) for more information. We are looking forward to seeing **you** at our next meeting!



You may join or renew your membership by mail.  
Complete this form and mail with a check payable to:

Marie Both  
Commodore Users of Wichita  
351 E Marion CT, #2  
Wichita, KS 67216

Type of membership:

- Family - includes Newsletter & Disk O'Quarter (\$15 per year)
- Newsletter-only (\$5 for 12 issues)
- Disk O'Quarter by mail (\$12 for 4 issues)
- Disk O'Quarter by mail plus Newsletter (\$15)

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

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

List additional family members who are interested in participating:

\_\_\_\_\_

What Commodore systems do you use? (please check all that apply)

- C-128  C-64  SX-64  VIC-20  C-16  Plus/4
- Other (specify) \_\_\_\_\_