



# Cincinnati Commodore Computer Club



April 18, 1999

## President's page

**Howdy Fellow  
Commodore Users!**

On April 18, we will open nominations for the 1999-2000 term of officers. If you wish to try your hand at being an officer, let it be known so that your name can be put on the ballot for May's elections.

In March, I received a phone call from a Commodore User wanting ribbon information on Commodore printers. I knew some information about the specific printer he was asking about, and suggested places he might try to locate the ribbons. Fortunately, CMD had published in their last Commodore World, places where one may order ribbons, via mailorder. Get with me if you didn't get that issue and want to see it.

Since I work at a computer retailer (name withheld for company policies), I have access to a wide variety of information that is not readily available. One such reference is called

the AspenGuide. It is a reference of known printers, and the media it uses, i.e. ribbons, toner, or ink cartridges. If any office supply store or computer store does not have this, or a similar reference, they are doing a disservice to their customer by not being able to fully give the customer their best effort.

Looking up the Printer to Ribbon index, the customer can be advised of a compatible ribbon that the machine can use. In some instances, the printer that has the Commodore name on it, was truly manufactured by another company. For example, the Commodore 1000, uses the same ribbon as the Epson LX80 Spectrum.

You should find a listing elsewhere in this issue (if I can get the editor to squeeze it in with all the other articles) of the Commodore printers and their compatible ribbons.

I had not heard of some of these before, but I am sure it would still be welcome information to

## Rampantly Rambling Ruminations

the persons who has those printers.

Even if you don't need ribbons for your Commodore printer, right now, you might want to hold on to this listing for future reference. You never know when someone is going to call and ask you that question. If you saved the article, you'll be the saviour with the information at your fingertips.

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Club President Webpage  
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# Secretary's Report

by Julie Barr

**CINCINNATI  
COMMODORE  
COMPUTER CLUB Minutes  
of Mar. 21, 1999 Meeting  
by Julia Barr, Secretary**

Club Meetings are held regularly on the third Sunday of each month at **NORWOOD PLAZA BINGO HALL**, located at 3825 Montgomery Rd. Norwood, Ohio from 2 - 4.

1. The meeting was called to order by David Witmer with 15 members present. Officers reports are summarized as:

a. President David WITMER printed 2 pages of the Geocities Yahoo merger news report. This one servers traffic was around 3.5 million web sites with an average of 27 pages. Dave reminded everyone about the clubs website is only 9 pages and it is only using 95K of the 11 meg

available. Asked club members for banner contest ideas. Discussed those who use Genie with local access will soon be switched over to the new GENIE service.

b. Vice President Steve WINKLE said he hadn't been doing too much, since the club is selling computers cheaper than he can fix them right now. He also said he didn't find much at the computer show on Sunday when he worked the booth.

c. Librarian Ed GASE said he found a news group source relating to public domain releases of previous Commodore software. THE PC MCIA interface is still not working. Brought up the request for purchase of an 850 meg hard drive for the laptop.. However it was also mentioned some of the hard drives may require a bios patch for the drive / size.

d. Newsletter Editor Using Express Publisher. Needs articles & help- such as stapling , folding , labeling etc.. e. Publicity Roger HOYER said he is sending out postcards

regarding our meetings to those "fest interested." He also updated the new disk of club goodies for this month.

f. Membership Ike GEER said not much. However he is bringing the list up to date. He has had to remove the expiration date from the mail labels because the post office conflict with the zip codes.

g. Treasurer Ski BUCHUENAU was missing due to an illness. Balance \$2280.00

2. As for NEW business - NOMINATIONS for officers next month. Elections in MAY. Lansing MICH Show MAY 1st.

Demo of video tape with Jim Butterfield showing how to hookup a 64 etc. 3. The following ANNOUNCEMENTS were made: Mr. Ed Gase ref web site of Commodore Hardware such as 1570, 1572 drives. Cable info 1541 to PC and X1542/ PC1541

MEETING DATES APRIL 18; MAY 16

JUNE MEETING WILL BE RESCHEDULED FROM 20TH FATHERS DAY TO 27TH

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Microsoft Baqshing

# The 4 C'r



```
-----  
!           !  
!   DISK SKEW   !  
!           !  
----- Dick Trissel -----  
E-mail: rtrissel@slonet.org
```

Why does a particular program load faster on one user's computer than on another's when they are both using the same hardware?

Answer: Because they are using different floppy disks.

Ah, come on--a floppy is a floppy. Not so. Although, the formatting of a 5.25 inch disk on a 1541 or 1571 drive is the same (of course the 1571 does both sides if in the 1571 mode), the writing to the disk may vary radically.

The position of a particular file on the disk might make a little difference in the file load time (how much drive head travel required), but the big contributor is a little known factor called the "sector interleave" or "sector skew".

Before we get into this factor more deeply, a brief refresher on how files are written to a disk. A Commodore 5.25 inch disk is formatted by writing 35 concentric tracks each containing a number of 256 byte sectors.

The number of sectors per track depends on the track position. The track position is numbered 1 to 35 from the track nearest the outer edge toward the hub. Tracks 1-17 have 21 sectors numbered 0-20; tracks 18-24 have 19 sectors; tracks 25-30 have 18 sectors, and tracks 31-35 have 17 sectors.

Track 18 is dedicated to directories. Sector 0 is the header directory sector, and the rest of the sectors are directories to the files on the disk. So, to optimize accessing a file, the files are written on the disk as close to track 18 as

possible. The first file starts on track 17 and continues on that side of track 18 until the file is completed. The next file starts on the track closest to 18 that is unfilled, and so on.

The disk spins at 300rpm (5 revolutions per second), or 0.2 seconds per rev. So, depending on which track, 17 to 21 sectors pass by the drive head every 0.2 seconds, too fast for the DOS (disk operating system) to read or write in consecutive sectors (about 0.01 seconds). To give the DOS time, a set number of sectors are skipped from one access to the next.

File sectors have the first two bytes used to point to the next track and sector for that file. These pointers are what are used to space the consecutive file sectors (not consecutive disk sectors).

For example, the first sector of a file may go in sector 0, the next in 10, the next in 20. That's an interleave (skew) of 10. But, that means the disk has to go around 10 times to get all the sectors on the track, or 2 seconds for the entire track.

Now, what if we set the skew to 5 sectors. Then we get twice the sectors per rev (1 second per track)--twice as fast. For a 220 block file (a block is another name for a sector), the load time with a skew of 10 is 22 seconds (220sectors divided by 20sectors per track = 11tracks; 11tracks times 2seconds per track = 22seconds). For a skew of 5 its half of that or 11 seconds. We saved 11 seconds for a 220 block file load.

How is the sector skew established? Well, it's not in the formatting. The skew is set in the DOS. Each drive has a location in drive memory ("zero page" location 105; \$69 hex) that is the default step size for the skew. Either the default number is used or a copy program sets

(continued next page)

The 1541 DOS defaults to 10. The 1571 defaults to 6. The C-64 FASTHACK'EM defaults to DOS. The C-128 FASTHACK'EM defaults to 10 for a 1541 and 5 for a 1571 and is adjustable. MAVERICK defaults to 6 and is adjustable.

Be careful, you can over do a good thing. If the skew is too small and the DOS (or a speed up cartridge) can't keep up, you'll end up losing more than you gain (extra disk revs). A C-128 with JiffyDos and a 1571 can handle a skew of 4. But without JD, 5 is max. Also, it looks like 1571s with the old ROM can't take advantage of as small of a skew as the new ROMs.

Note: Not all files on a particular disk need have the same skew. The skew is determined at the time the file is written. Know that copy programs are only able to affect the file sector skew when doing file copying, not disk copying.

Also, we have been talking about program files because the loading of program files is the fastest disk access for DOS. The access of data files is usually slowed down by the program software execute time and therefore usually doesn't benefit that much by optimizing skew.

How can you set the skew for, say, a file in computer memory you want to save to disk? You have to change the disk drive memory location 105. And here's a BASIC program that will do that.

This program will look at the sector skew setting for a device, change it to the user selection, and then verify the setting.

```
10 REM SET SECTOR SKEW
20 INPUT"TYPE DEVICE NO., SKEW
8,6[cl][cl][cl][cl][cl]";D,S
30 IFD < 8 OR D > 11 THENEND
40 CLOSE1:OPEN1,D,15:PRINT#1,
"M-R"CHR$(105)CHR$(0)CHR$(1)
50 GET#1,A$:A=ASC(A$+CHR$(0))
```

```
:PRINT"THE PRESENT SKEW IS";A
60 INPUT"WANT TO CONTINUE (Y/N)
N[cl][cl][cl]";Y$:IFY$ < > "Y"THENEND
70 PRINT#1,"M-W"CHR$(105)CHR$(0)
CHR$(1)CHR$(S)
80 PRINT#1,"M-R"CHR$(105)CHR$(0)
CHR$(1)
90 GET#1,A$:A=ASC(A$+CHR$(0))
:PRINT"THE NEW SKEW FOR
DEVICE";D;"IS";A
100 CLOSE1
```

where [cl] = cursor left.

It is a rule that the number of disk revolutions to read a complete track is equal to the sector skew value. Below is a tabulation of sector skews versus the track size.

```
50 DIMA(21)
60 CLOSE4:OPEN4,3
70 REM CLOSE4:OPEN4,9,9,"PRNT,S,W"
80 FORT=16TO20:IFT=19THENNEXT
85 PRINT#4:PRINT#4,"TRACK
SIZE="T+1
90 FORX=4TO10:S=-X:SM=T+1:K=0
100 FORI=0TO21:A(I)=99:NEXT
110 K=K+1:IFK > SMGOTO170 120
S=S+X:IFS > T THENPRINT#4,"]";
:S=S-SM
130 FORI=0TOK:IFS=A(I)THENPRINT#4,
"*";:S=S+1:I=K
140 NEXT
150 A(K)=S:PRINT#4,S;"[cl]";
160 GOTO110
170 PRINT#4:NEXT:NEXT:CLOSE4
```

where [cl] = cursor left

Ed Note: This article is reprinted from the Central Coast Commodore Users Group. They have stopped publishing their newsletter, but have posted back issues on the internet. The articles are free to republish as long as credit is given. The tables were deleted as they did not format well in this space. See me at the meeting if you would like a copy.

Ed

From: TheCrypt1 <thecrypt1@aol.com>  
Subject: Edgar Allen Poe Date: Friday, March  
26, 1999 6:27 PM

Suppose Edgar Allen Poe Had Used a  
Computer...

Once upon a midnight dreary,  
Fingers cramped and vision bleary,  
Systems manuals piled high and  
Wasted paper on the floor.

Longing for the warmth of bed sheets,  
Still I sat there, doing spreadsheets,  
Having reached the bottom line,  
I took a floppy from the drawer.

Typing with a steady hand,  
I then invoked the SAVE command,  
And waited for the disk to store,  
Only this and nothing more.

Deep into the monitor peering,  
Long I sat there wond'ring, fearing,  
Doubting, while the disk kept churning,  
Turning yet to churn some more.

"Save!" I said, "You cursed mother!  
Save my data from before!"  
One thing did the phosphors answer,  
Only this and nothing more,  
Just, "Abort, Retry, Ignore?"

Was this some occult illusion?  
Some maniacal intrusion?  
These were choices undesired,  
One's I'd never faced before.

Carefully, I weighed the choices  
As the disk made impish noises.  
The cursor flashed, insistent, waiting,  
Baiting me to type some more.

Clearly I must press a key,  
Choosing one and nothing more.

Robert

What could be worse  
Than a little verse?

## Editor's Note.

I thought I was going to have  
more time to work on the  
newsletter this month, but it  
didn't work out. As the French  
say, "That's life."

The Librarian asked me to tell  
you that he will be adding  
Dialogue 128 to the library  
soon. He just discovered that it  
has been released as freeware.  
This is exciting news as Dialogue  
is one of the two best terminal  
programs for the Commodore  
128. The other is, of course,  
Desterm. He doesn't know if he  
will have time to get it on disk  
before the next meeting, but you  
can ask him.

The editorial staff could use  
some help. Any volunteers?

Ed

# Cincinnati Commodore

## Computer Club

### Current Officers

<b>President</b>	<b>David Witmer</b>	<b>868-1344</b>
<b>V. President</b>	<b>Steve Winkle</b>	<b>1-937-783-5559</b>
<b>Secretary</b>	<b>Julie Barr</b>	<b>821-2468</b>
<b>Editor Pro Tem</b>	<b>Ed Gase</b>	<b>829-0942</b>
<b>Treasurer</b>	<b>Sid Buchenau</b>	<b>683-1022</b>
<b>Publicity</b>	<b>Roger Hoyer</b>	<b>248-0025</b>
<b>Librarian</b>	<b>Edward Gase</b>	<b>829-0942</b>
<b>Membership</b>	<b>Ike Geer</b>	<b>752-0512</b>



**Making the world better one bit at a time.**



Norwood Bingo Hall  
3825 Montgomery  
Rd.  
Norwood, OH

at

from 2 P.M. to 4  
P.M.

Next Meeting  
Sunday  
April 18, 1999

Cincinnati Commodore Computer Club  
% Roger Hoyer  
31 Potowatome Trail  
Milford, Oh 45150

Cincinnati  
Commodore  
Computer  
Club

address  
label