

HARDCOPY

What's New

By Bob Ward

Our December meeting offered a little something for everyone. The first hour started with George, and the impossible task of trying to answer everyone's computer questions. Privately Dr. DOS admitted he was stumped by a few highly specific questions last meeting. Still his batting average deserves an A+... And many thanks to the other members who participate in the open discussion trying to resolve others computer problems. That's what a User's Group is all about.

During the intermission I started unpacking the many computer prizes that we were about to give away, displaying them on a table at the front of the room. That attracted some attention! My thanks to two individuals who contributed about half the prizes; first to our president, George, who donated several software packages, and second to French Morgan, owner of Computer Solutions who was most generous and supplied us with computer games, a copy of PC Magazine's Power Tools, and two items which might come in handy

after a long day at the desk; a stress ball and a pocket terminator. If you don't throw the ball at the computer, then zap it with the pocket terminator. They're both effective at reducing tension.

Before the giant give-a-way we had election of officers. Our club could enter the Guinness Book of World Records for the fastest nomination of officers for any organization in the world! Before George could even lift a hand to the chalk board we heard this voice from the audience; "I nominate the existing officers for another term in office." Then there was a speedy second and, "I move the nominations be closed." Another second was followed by a 20 Mhz, "All those in favor say I." And you know the rest. So here we are with the same old faces staring you in the eye at each meeting. That's all well and good for another year, but please

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Christmas Connections and Communications

By Cleone Van Westen

SLO Bytes PC User's Group

A 'bah.. humbug.. virus's invaded my computer this holiday season. 'Distasteful.. dreary.. doldroms' entered without rhyme or reason, reflecting on relationships of our mysterious human condition. May this 'season's spirit' begin to ease our genuine contrition.

We can erase 'computer logic' with a combination of correct keys, but there are alternate paths we can learn to compute with ease. Do we remember in our relationships, there are alternate routes, and 'our way' is not always the best way, for those with doubts?

Like the brain, a computer can sort, sift and filter information, that is entered by an individual with his

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PRINTING.BUG

What It Is and What To Do About It.

By Thomas Rogers

SLO Bytes PC User's Group



When attacking the printed garbage problem, we shall assume the trouble lies in the cable wiring and not in the computer or printer. Just so we are all talking the same language, we should briefly review the concepts of computer printer operation.

Let's start with the computer and printer set up to act as a typewriter. You press a key and the printer prints the character corresponding to the key. Now, without going into the black-box details in the computer, when the key is pressed, "A", signals are sent to the monitor to print an "A" and also to the printer to print an "A". The computer and printer both work with groups of signals or pulses that are called "BYTES". A full fledged byte, "FF", consists of eight pulses, each pulse travelling on it's own channel or wire to it's destination. These eight bytes leave the computer by way of a cable terminal or plug on their way to the printer. However, before the byte leaves the computer, let's discuss the bytes, bits and other stuff.

Our familiar decimal system is a good place to start. The decimal system uses ten characters and only ten characters 0,1,2,3,4,5,6,7,8,9 to represent all values. Each character has a value depending on it's location to the left of the decimal point - (0,1,2,3,4,5,6,7,8,9) times 10^n . If $n=0$, we have just the digits since $10^0 = 1$. If $n=1$ then we have the digits multiplied by 10. 10^2 is 100 and so on. Using the same idea for the digits of the byte would result in: $(0,1)2^n$.

1	1	1	1	1	1	1	1
2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0
128	64	32	16	8	4	2	1

(Remember $2^0 = 1$)

The top row above represents the eight bits in a full byte. The second row represents the bit value in powers of two. The bottom row represents the decimal value.

These values are fine but difficult to work with so let's break the byte in half to get two groups of four. The right half of the byte, sometimes called a NIBBLE, is the least significant half or the Least Significant Nibble, LSN. The left half is the MSN or Most Significant Nibble. Also, since we now have the LSN and the MSN, we may now treat them as four bit units:

	MSN					LSN			
1	1	1	1	1	1	1	1	1	
8	4	2	1	8	4	2	1		

A little more discussion and we can make short work of cable problems. Each nibble has sixteen bit combinations as shown.

MSN	plug pin numbers	LSN
9 8 7 6		5 4 3 2
0 0 0 0 = 0		0 0 0 0 = 0
0 0 0 1 = 1		0 0 0 1 = 1
0 0 1 0 = 2		0 0 1 0 = 2
0 0 1 1 = 3		0 0 1 1 = 3
0 1 0 0 = 4		0 1 0 0 = 4
0 1 0 1 = 5		0 1 0 1 = 5
0 1 1 0 = 6		0 1 1 0 = 6
0 1 1 1 = 7		0 1 1 1 = 7
1 0 0 0 = 8		1 0 0 0 = 8
1 0 0 1 = 9		1 0 0 1 = 9
1 0 1 0 = A		1 0 1 0 = A
1 0 1 1 = B		1 0 1 1 = B
1 1 0 0 = C		1 1 0 0 = C
1 1 0 1 = D		1 1 0 1 = D
1 1 1 0 = E		1 1 1 0 = E
1 1 1 1 = F		1 1 1 1 = F
7 6 5 4	value of n for 2^n	3 2 1 0

As you can see, we have reduced each nibble combination to a single character, 0 through 9 and A through F. These characters are the "Hexadecimal" numbers. The entire operation of a computer involves moving the eight bit combinations around using these "Hex" values, at least as far as we are concerned.

The final tool is to acquire an ASCII table such as the IBM Character Set Reference Table in Section 7 pages 12 and 13 of the Technical Reference Manual. The usual ASCII tables are in page long columns and are almost useless for our

WORDSTAR SIG

Take note... anyone wanting to join a WordStar SIG (special interest group) call French Morgan at 544-3691. He would like to be SIG chairman if there is enough interest. Meetings would probably be held some evening OTHER than the general meeting date.

This group will cover thru WordStar 2000 and version 5.5 .

What's New

remember, being an all volunteer organization the officers need help from YOU to maintain the club at its present level. We won't be here forever, but we hope the club will be here long after we're gone. By-the-way if you don't know who running the show, check the bottom of the first page of this newsletter.

After elections, we began the "Big Give-a-Way" and disposed of about 40 prizes... by looking at the number of non-winning tickets I would guess that the majority of people went away with something. For those who didn't win anything, come back next year, your luck is bound to change. Here's a list of the lucky ones: Barbara Adams, Philip Amborn, Howard Amborn, John Bautts, Tibor Beresky, Jim Bigelow, Tim Bittner, Robert Boyd, Ben Brown, Cliff Buttschardt, Frank Cardoza, Dennie Chandler, Richard Cletsoway, Robert Crum, C.K. Currey, Doug DePue, Francis Gurney, Jerry Graybill, Harvey Haefer, Geroge Henderson, Bill Henson, Carol Jacobson, Jay Jaekel, Arthur Kennedy, Bill Leonard, Jules Lieber, Walter MacPhee, Jeff McDonald, Ray Miklas, Ernest Miller, Edwin Montgomery, Will Osibin, Sam Powers, John Rogers, Tom Rogers, Richard Shirley, Shirley Smith, Teri Sorgatz, Pat Stafford, Ken Stilts, Al St-Peter, Darrell Thompson, George Tway, Louis Valiante, Cleone Van Westen, Ernest Werbel. I think that's all the winners. If I missed anyone, my apologizes.

Our "swap meet" was lively as usual with several software packages and some hardware changing hands. Prices were reasonable and many "hot" deals were made.

The meeting concluded with a short demonstration of the latest version of LIST and TO_QUICK. I had hoped others would participate in showing their favorite shareware program. Start practicing, we'll get you next year.

Next month we will be looking at computer hardware. French Morgan from Computer Solutions will show us how easy it is to install an external 3.5" floppy disk drive on any computer. The hardware comes from Micro Solutions, makers of many floppy disk compatibility products. They offer Megamate, their complete 3.5" drive package that lets any PC/XT/AT computer use either 1.4Meg or 720K 3.5" diskettes. They also make Compati-Card IV a disk controller card that runs 3.5", 5 1/4" and 8" drives off any PC/XT/AT. We will hook up a video camera for the demo and pipe the image through the overhead monitors in the lecture room. Everyone will have a chance to see what's going on.

###

Bits n' Bytes

- As you can see the newsletter has a new name... "HARDCOPY". We asked for input for a new name and received none so I took it upon myself to come up with a computer-eze descriptive name. Club Newsletter was just to ordinary for such a not-so-ordinary user group.
- Look at the front of your newsletter. Notice we are now third class. No, not a third class group by any means, just 3rd class mail. This should save us over \$200 per year in postage. If you live in the 934.. zip code and do not receive your newsletter before the meeting, LET ME KNOW. Note the day you receive your newsletter. I'll be taking a survey at the next meeting. If you move it will be up to you to give us your new address. Undeliverable 3rd class mail will not be returned to sender. We will have no way of knowing that you have moved.
- If you are looking for a specific piece of shareware, let me know. (Bob Ward) If we don't have it, I'm sure we can find it.
- Remember the PC-Magazine user group discount. Call (800)777-2547 to subscribe or renew your magazine. PC-Magazine @ \$24.97 and PC Computing @ 14.97.
- That time of year is rolling around again with possible thurder showers on the horizon (maybe just wishful thinking). In any event, to avoid frying your computer electronics it's best to unplug the beast during electrical storms. This includes any phone wires that may be going to your modem. Surge suppressors are good only to a point.
- Please look at your mailing label and make a mental note when your membership expires. Although most renew on time, there are a few who wait until I've dropped them from the database before renewing. Then I have to rekey all the information back into the computer. Please save the poor, getting older, secretary a few key strokes, renew on time.
- We have a few good software training programs which you may try on a monthly basis. Check with Teri at the treasurer's table in the hall for details.
- Is there a cartoonist in the crowd? Now and then we come across a great idea we'd like to express as a cartoon. But since the officers can't draw a circle with out a CAD program we could use someone who can sketch with a real pencil on real paper. No mice allowed. We can scan in any of your creations to a computer file.
- So you wonder why you can't get through to our Bulletin Board. Hey, more than just the "locals" are using our board. Here is a list of "outside calls" we received within a 54 hour period: Edison, NJ (1) Elk City, OK (2) Athens, TX (1) El Paso, TX (1) Clovis, NM (1) St.Louis, MO (1) Kent, WA (1) Holland (1) Santa Maria (6) Paso Robles (5).
- New BBS in Cayucos. Call the CBBBS at 995-0130.

###



Christmas Connections

personal aberration. Its "Command Performance" comes, after a multitude of mistakes. "Are you sure?" A conscience designed to prevent so many aches.

The computer is a giant filing cabinet with many menus; a feast opening windows of the mind, sometimes beauty, sometimes beast. Computing is not the total cure, its the courage of convictions, learning laws of the universe, sometimes with contradictions.

If we could press the buttons of our brains... humbugs to erase, in our tribulations not to put down but to put on a facile face, putting ourselves in the place of the other person's persuasions computing a more generous and gentle world of personal relations.

Telecommunications and computers may change a complex universe, when mortals peer into these windows... to comfort or to curse. Will software programs help man-kind to reach his peaceful goal? Are the keys to human understanding, a computers ultimate role, inspiration from above, as we peer through windows of our soul?

Why allow 'bah humbugs' to disrupt our data system in a flash when we can devise a network of 'backups' to prevent a crash. An exchange of interpretations in our circles of communication man respectfully tune in to others with harmonious illumination.

###

PRINTING.BUG

operation. The IBM table lists the LSN combinations, 0 to F in rows, down the left side and the MSN combinations across the top in 0 to F columns. There are sixteen rows and sixteen columns for a total of 256 character locations.

Using the first half of the ASCII chart, you will notice that under column "4" there is listed "@" in row 0, "A" in row 1, "B" in row 2, etc. The "Hex" numbers of these characters are 40, 41, 42, etc. Now is a good time to imagine the eight data wires connected to these eight bit columns in the order of the bits sent out on them. If "@" is typed, a "4" bit will be sent on the MSN four wires with nothing on the LSN wires. The printer will print "@". In the same manner, a "41" will print "A", "42" a "B", "43" a "C". However, suppose that the "one" wire is either open or shorted, then the "one" signal will not reach the printer and the printer will print "@" or "40" instead of the "41" sent.

At this point we may make use of the tables of "ones" and "zeros" above by the imagined cable connections to the the columns of figures. The 2⁰ wire to the right hand column of the LSN group then 2¹ to the next and so on to the 2⁷. For the LSN table, there will be a single row shift up for the character printed from the character sent when "one" is lost from the "1" value column. The rest of the LSN table will have a two row shift up for a "2" value lost, a four row shift for a "4" value lost, and an eight row shift for an "8" value lost. These represent shifts in location from the character sent to the location of the character received and are in the same column. The MSN table has the same result except the shift is to the left in terms of columns.

The case of a ground or an open circuit is discussed above. An interchange of two wires will produce an interchange of characters in the same column for the LSN and an interchange between columns in the same row for the MSN.

If there is a short between two adjacent pins, then if either pin has a signal, both will have the signal. An example is when the "one" and "two" pins are shorted. "A" or "B" or "C" will print as "C".

Multiple faults will act independently with the resultant the sum of all the faults. To test this, take a lower case "o" which is in row 15H and has all four bits. Check the shift for each type of fault.

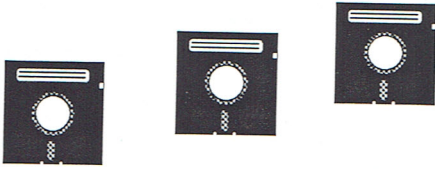
###

January 1990			
Sun	Mon	Tues	Wed
	1	2	
7 Meeting	8	9	1
14	15	16	1

Calendar

- January 7th Installation and demonstration of Micro Solution's 3.5" drive and card by French Morgan.
- February 4th XTREE GOLD by a representative from XTREE (tentative)
- March 4th Wordstar will be demonstrated by a representative from MicroPro.

###



SLO Bytes Library

Here's what we have added to our library for the month of December, 1989:

#361 **CALTRK12** - count calories for different types of exercise.
MUGSHT11 - make a mugshot from your computer just like downtown. (graphics)
PCDC - a flat file database.
YEARPLAN - plan out a yearly calendar

#362 **4DOS** - much more versatile than PC or MS DOS. Highly rated.

#363 **GEOCLOCK** - watch the shadow of nite cross the United States. Will show evening shadow for any date and time of year. Requires hercules graphics or better.

#364 **EASY-MNG** - property management program. **100FORMS** - just as it says, 100 form letters. Dear John to "give me my money or else!" **WEDIT** - a small, fast and easy to use editor

UPDATES:

#082 **LIST72A** replaces version 7.0

Demo Disks:

#140 Timescribe by WordTech Systems

For those individuals using our library for the first time, if you find any files on a library disk with the extension .ZIP, then run a file called GO.COM first. This will explain how to un-squeeze these files.

###

Computers and the American Language

By Mary A. Ruggieri

Modesto PCUG, April 1989

Years ago before computers entered our daily lives, describing something as a "two-bit-such-and-such," meant that it was not worth much. If the speaker were a literal-minded fellow, he would be pricing the object at 25 cents.

Today, however, the term "bit" carries a different meaning--one arising out of the explosion of computer technology. And of course, with the coming of fifth-generation computers and 32-bit processing, anything "two-bit" is sadly outdated.

In olden-days a mouse was a four legged nuisance that ate unprotected food and caused silly ladies to scream and stand on chairs. Today's mouse, rather than a living rodent, is most likely a device for moving the cursor about on the screen.

Few things reflect the changes in a culture more faithfully than its language. As discoveries lead us into unknown fields, words are needed to express and spread the new learning and understanding. Without a finely tooled language, an emerging discipline cannot develop or properly express new concepts. Many fields of study, such as medicine and the law, are often accused of purposely making their language incomprehensible to exclude outsiders. This is not true. Legal and medical fields like those of any science need languages capable of precise expression and unambiguous statement. This need for new vocabularies can be easily demonstrated in the recent developments in space. Progress could not have been made without a vocabulary enabling scientists to communicate with each other.

The new words required by every new field of knowledge are created in different ways. Sometimes new words are created from scratch, (such as kludge); other times meanings of old words are altered to fit new needs (bit). Acronyms develop, (BASIC, GIGO) and idioms composed of already-existing words express new meanings (online). Parts of speech such as prefixes often take on increased importance (mega, giga, nano).

Since 1963, the annual Year Book of the World Book Encyclopedia has included a Dictionary Supplement in which they recognize and define words they will add to the next edition of the World Book Dictionary. In 1963 the words, "meter maid," "karate" and "psychopharmacology" were being introduced into the average American's sphere of awareness. Today these words are so familiar to us that it hardly seems possible they were so recently unknown. The 1963 Dictionary Supplement did not include even one computer-originated word. However, the following year, 1964, "read-out" "programmed instruction" and "teleprocessing" were recognized. In 1972, World Book proclaimed the following to be acceptable in their computer-related meanings; byte, chip, data bank, data base, gate, integrated circuit, peripheral, and wafer.

In the 1988 supplement the computer-linked application of the following words was accepted as part of our national vocabulary: Compatibility, defined as, "the ability of computer software or hardware to be used with different models or systems without adaptation." The word, computeracy was recognized to mean, "computer literacy." And flops, meaning f(loating) l(ogical o(perations) p(er) s(econd), was defined as "A unit of speed in the operation of a computer, often used in combination, as with megaflops, (one million flops), and gigaflops (one billion flops);

Many computer-type words are now commonly used in non-computer related ways are; interface, access, ad-
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Language

dress, glitch, bug, input, on line, off line, crash, menu, real-time, hacker, virus, and time-share. Other words, once seldom-used such as icon, clone, artificial intelligence, and robotics now have a high degree of recognition because of their use in the field of computers.

Functions or conditions specific to the computer required descriptions and labels, such as; number crunching, flexipace, smart card, techie, telecommute, data flow, and super chips, multi-tasking, bulletin board, and windows.

Another way in which an emerging body of knowledge can affect a language is in its pronunciation. Some long-established but seldom-used words can be subjected to widespread mispronunciation when their use becomes more frequent. I am thinking specifically of the word, data, (plural of datum). The preferred pronunciation is "date-ah" not "dah-ta." According to the World Book Encyclopedia, "In English, the principal sound of A is as long A as in 'fate.'" Dictionaries, including Webster's Third New International Dictionary lists "date-ah" as the preferred choice.

The confusion of this pronunciation is perhaps because of the word's Latin origin. In Latin, the A is pronounced softer than in English, and some people have mistakenly concluded that softer is better--as in more refined or genteel. Adopting this faulty reasoning would have Americans talking about "to-mah-toes" and "po-tah-toes."

I must confess that having had the correctness of "date-ah" firmly beaten into my head by a wonderful high school Latin teacher, even today I cringe whenever I hear the word pronounced as "dah-ta." So, as the use and technology of computers continues to expand, so will its influence continue to enrich and challenge our daily language.

###

April Workshop!!!

By Alan Solomon

(The following article appeared in the April 1989 issue of Connectivity, the newsletter of the IBM PC User Group, UK)

Double your diskette capacity

The 360K diskette is so called because it uses 40 tracks, 2 sides and 9 sectors per track for a total of 720 sectors. A sector is 512 bytes, so this gives you 360K. But there is nothing sacred about the 512-byte sector, even though it is universally used on floppy as well as hard diskettes.

Some hard disk management software, such as Disk Manager, Vfeature and Speedstor uses this fact, and creates sectors that are 1024, 2048 or even 4096 bytes, making it possible to have 256Mb hard disks. Nearly all software can cope with these disks, with the exception of software that works at a lower level than DOS (Tom Drake had his hard disk trashed by Norton 4.5 recently - he was trying it out in the cause of science, and was fully backed up, of course).

What you perhaps didn't know, is that the hard disk still has sectors which are physically 512 bytes in size, but the software bundles these up into logical sectors which are 1K, 2K or more - you don't actually get any more space, you just get to run larger partitions. It is actually quite difficult to format a hard disk to any other physical sector size, and I don't know of anything that does.

On the other hand (OTOH, as we say on Connect) a floppy disk can quite easily be formatted so that it can have 1K physical sectors - it even says so in the bios listings. I've never actually tried this before, but a little while ago,

I had some time to spare, and I tried it out. It works, you can put 1K sectors on a diskette. All you have to do is change the DPT (diskette parameter table), which is easily done by building a new one, and then redirecting vector 1B to point to it. But I forgot to change the number of sectors-per-track, which should obviously be changed from 9 to 5, to accommodate the larger sectors.

So it was entirely by accident, that I found that you could get nine of these 1K sectors around the track. I thought that they must be overlapping, but then I found that I could write data to each of them, and I worked out what was going on. On a diskette, there is data in blocks, CRC and other coding information, and inter-block gaps. Because 512 bytes isn't very much, the inter-block gaps are quite wide, and there is a particularly wide gap after the ninth. With 1K sectors, the inter-block gap is much narrower, and the last gap is almost non-existent, which could cause problems if your diskette drive rotational rate isn't constant.

It also turns out that altering the DPT is all you need to do - DOS recognises the larger sectors, and adjusts for them, just like it does with Disk Manager and the others. So why aren't 1K sectors standard? For the usual reason - IBM set a rather conservative standard, and all the other manufacturers followed like sheep. If a manufacturer used the 1K DPT in the BIOS, then he'd get support calls from people who were having trouble reading IBM's feeble 512- bytes sectors. Also, it would reduce the sales of other storage media if it got out that you can store 720K on a 360K floppy drive.

Looking at the chip manual (the Intel Microprocessor Handbook - 2500 pages of pure information) I found that it was actually documented, but a bit obscurely. It seems that the 8272 chip can use the far I/O poll - this is also available on the NEC PD765 that is widely used in floppy disk controllers. This poll makes it possible for the chip to do an I/O call to far memory, instead of the normal near call.

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DOS For Beginners

By Bill Shook, Editor

NWA-MCUG Newsletter - October, 1989

Workshop

So, the following tip is offered to you with the usual caveats. I tried it on a couple of my machines, and it does exactly what I would expect it to, but if you try it on yours and get unexpected results, please don't call me. I can be sure, however, that it won't damage anything, and that if you reboot, it'll go away. Type the following. The dash is DEBUG's prompt - don't type it, nor do you type the xxxx:0100 stuff.

```
DEBUG
-n moredisk.com
-a100
XXXX:0100 MOV AH,09
XXXX:0102 MOV DX,010A
XXXX:0105 INT 21
XXXX:0107 INT 20
XXXX:0109 SBB AL,[BX+DI+70]
XXXX:010C JB 0177
XXXX:010E DB 6C
XXXX:010F AND [BP+6F],AL
XXXX:0112 DB 6F
XXXX:0113 DB 6C
XXXX:0114 AND [BP+SI],CX
XXXX:0116 OR AX,0024
XXXX:0119 <ENTER> (JUST PRESS
THE ENTER KEY)
-rcx
-18
-w
-q
```

Debug will create a file called MOREDISK.COM. You then type MOREDISK at the DOS prompt, every time you want to run it.

###

USING A RAMDISK

A RAMDISK is a virtual disk(ette) drive in RAM (Internal Memory). It has its own drive letter designator (C:, D:, E:, etc) and is used just like any other drive; i.e. copy files to it, delete files, make files (COPY CON command), sub-directories, etc. Unlike physical drives, you can conveniently even make it the size you want, if you have enough memory for it and the programs you want to run. However, it has one major limitation - IT'S VOLATILE! When you shut down, or reboot for any reason, IT'S GONE! DISAPPEARS! EVERYTHING IS LOST! GET THE POINT?

So, when using a RAMDISK, it's a good idea to include in the .BATch file you entered your program from (maybe your AUTOEXEC.BAT file), a routine prior to leaving the file that will SAVE any files that are in the RAMDISK that you will want later. If you don't, and you're like me, you think you'll remember to do it, but you'll get so involved, once in a while you'll forget it, and then all your work is for naught.

A RAMDISK is handy for any type configuration, but particularly a floppy system without a hard drive, and most particularly a one floppy drive system. Files used frequently will load much faster from RAMDISK (remember, it's RAM) than from any type of physical drive. It's a good place to put COMMAND.COM, since many programs wipe out the transient portion and it must be reloaded.

Putting COMMAND.COM there requires a COPY command in your AUTOEXEC.BAT file on boot-up. You will also need the line:

```
SET COMSPEC = C:\COMMAND.COM
```

(if your RAMDISK is drive C:) in addition to the COPY command. More on file construction later. Having programs load COMMAND.COM from RAMDISK rather than from a physical drive also adds a measure of protection from viruses. When you shut down, it's gone, and any COMMAND.COM contamination with it (contamination can occur elsewhere, but usually it's with COMMAND.COM). It's also a handy place to put a spell checker, or thesaurus, that's used frequently. If you only have one floppy and no hard drive, it's a good way to copy multiple files from one diskette to another (copy to RAMDISK and from there to a destination floppy).

To create a RAMDISK, you need to include it in your CONFIG.SYS file. The entry will be:

```
DEVICE=RAMDISK.SYS
for some MS-DOS versions, and
DEVICE=VDISK.SYS
```

for others and for PC-DOS versions (check your DOS manual for what your DOS "calls" it. Incidentally, it is not available with DOS below version 3.0). A Side note:

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DOS

the V in VDISK.SYS stands for "virtual". Default size is 64K. If you want it larger (or smaller), leave a space and add the size you want; i.e., 362, which will approximate the size of a 360K floppy drive. If you use this size and you have a 640K memory system, remember you'll only have 293,360 bytes left for everything else... DOS, application programs, memory resident files (TSR's), etc. 640K is really 655,360 bytes: 640 times 1024. If you're fortunate enough to have more than 640K, you can put it in "extended" memory and save the whole 640K for the other stuff. To do this, add /E (meaning extended) to the command.

Here are examples of typical CONFIG.SYS files, assuming you use FILES, BUFFERS and ANSI.SYS commands anyway (they don't relate to adding a RAMDISK):

```
DEVICE=RAMDISK.SYS
(VDISK.SYS depending on DOS version)
DEVICE=ANSI.SYS
FILES=25
BUFFERS=30
```

This will give a "default" 64K RAMDISK.

Substituting:

DEVICE=VDISK.SYS 362 will give a 362K RAMDISK within the 640K, or however much you have in LOW memory other than extended.

DEVICE=VDISK 362 /E will give a 362K RAMDISK in extended memory, if you have that much available.

If you don't have a hard drive, your RAMDISK will be drive C:. If you have only one logical hard drive, it'll be C: and the RAMDISK will be D:. If you have a C: and a D: hard drive, it'll be E:. DOS handles this automatically.

You will then have to re-boot to make it effective. But first, if you'll be using COMMAND.COM from the RAMDISK, you'll need to modify your AUTOEXEC.BAT file by adding the following to it (AUTOEXEC.BAT does not need modification if you're not using it for COMMAND.COM or load-

ing any files to it on boot-up):

```
COPY A:COMMAND.COM C: (With a hard drive, use C: instead of A: and the appropriate RAMDISK drive designator, probably D: instead of C:). Also, if you have COMMAND.COM in a subdirectory, such as \DOS, don't forget to add the path to the COPY command).
```

Then in the AUTOEXEC.BAT, add:

```
SET COMSPEC=C:\COMMAND.COM
```

This tells DOS to look to your RAMDISK, drive C: in this case, when it needs to re-load COMMAND.COM. Of course, the same comments regarding the drive designator given above, also apply here.

###



New Members

Welcome to those who joined our ranks last month. We're happy to have you as members of SLO Bytes and hope we can be one of your best sources of computer information.

Michael Buckmam 466-6081
Gerald B. Graybill 466-2650
Dave Hamel 934-2998

The following individuals have expired memberships. Please remit \$18 to either Bob Ward or Teri Sorgatz before the next meeting. Our mailing addresses are on the last page.

Elliotte Buckner
Jack Carter
Chat Chatfield
Bob Dunn
Charles Kusuda
George Maithonis

More Expirations...

Jeff Nadel
Ron O'Brien
Andy Proctor
Colette Roest & Associates
Henry Spence
Craig Thompson
William Yanes

###

FLOPPY DISKS 4-SALE at the meeting

Royale Grey DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
70 Cents Each

MEI DSDD 360K
Unformatted Floppy Disks
with labels, tabs, and sleeves
50 Cents Each

High Density Disks 1.2 MEG.
90 Cents Each

Sony 3.5" 720K
Unformatted Floppy Disks
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New Library Disks
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All Disks fully guaranteed against defects.

Club Information

The SLO BYTES Newsletter is a monthly publication of SLO BYTES PC User's Group located in San Luis Obispo, California. Information in this Newsletter is derived from both our own membership and other PC User Group Newsletters. The purpose of this publication is to inform our members of meetings and provide information related to the use of IBM PC's and compatible computers.

Membership: Dues are \$18 per year. Newsletter only is \$10 per year. Full membership entitles you to our monthly newsletter, full use of the public domain software library and discounts at local computer stores.

Article Submission: Deadline for submission of articles is the 15th of each month. Articles should be provided in ASCII format without any type of formatting from your wordprocessor including tabs, indents, extra spaces, or highlighting. We prefer articles on disk but will accept hardcopies if necessary.

Disclaimer: Neither SLO BYTES PC User's Group, its officers, editor, or contributors to this newsletter assume liability for damages arising out of this publication of any article, including but not limited to the listing of programming code, batch files and other helpful hints.

Reprinting of this Newsletter: Articles from this newsletter may be reprinted by other user groups if credit is given to both the author and newsletter from which it was taken. Reproduction of articles with a specific © Copyright notice is prohibited without prior permission from the original author.

Advertising: Commercial advertisers, request ad packet from Bob Ward. Members may advertise personal computer equipment or software for free. Submit your ad to Bob Ward.

Direct all correspondence to Bob Ward, 2100 Andre Ave., Los Osos, CA. 93402. Call (805)756-2164 M-F 7:30am - 5pm and (805)528-0121 all other times.

Treasurer: Teri Sorgatz, 832 S. 7th Street, Grover City, CA. 93433 Phone 489-2516

Meeting Times

General meetings are held the 1st Sunday of every month, unless noted otherwise in the newsletter calendar, at 2:30 pm in the Cal Poly University Biology Department, Fisher Hall 286. Special Interest Groups (SIGS) meet at 1:30 - 2:15 pm.

New User's SIG - F.H. 286

Our Public Domain Library is in Fisher Hall 292. Hours 12 Noon till closing.

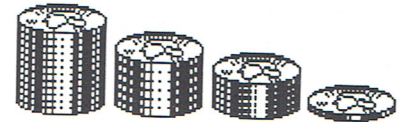
SLO BYTES BULLETIN BOARD

(805) 528-3753 2400/8/N/1

PC Files & Message Section

SYSOP: George Campbell

All Welcome - 24 Hours



Treasurer's Report

Here's what's in the bank after deposits and expenses in November:

Beginning Balance):	\$1429.33
Expenses:	
Newsletter	\$ 95.30
Postage	\$ 75.00
Manual Covers	\$ 11.93
Deposit 12/6/89:	\$ 311.60
	=====
Balance	\$1558.70



DISCOUNTS

Paradise Computers 3485 Sacramento, unit B San Luis Obispo 544-7127	5%	All computers, peripherals and software.
Star Computers 855 Morro Bay Blvd. Morro Bay 772-7827	5%	Any software in stock.
Computer Logic 973 Foothill Blvd. #4 San Luis Obispo 544-8347	10%	Paper, ribbons, cables, and other supplies.
WITCO Computers 3563 Sueldo, Bld. B San Luis Obsipo 549-0811	10%	Off list - all computers, software, computer peripherals, and products. Contact Bruce, Paul or Dave for discount.
	5%	Off complete systems, peripherals, supplies but not including software.
	5%	Off computers alone.

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2100 Andre Ave.
Los Osos, CA. 93402

The Night Before Deadline

By Felix Furber
Twin Cities PC Users Group



'Twas the night before deadline and
all through the house
Papers were flying, all chased
by a mouse.
The articles all were downloaded
with care,
And the discs brought by sneaker
net soon would be there.
The Editor hovered over printouts
with dread,
While visions of redlines danced in
his head.
Out goes a comma, then slash
to some caps,
And he settles down to a
long drawn out hack.
When over at the keyboard
there arose such a clatter,

He sprung from his chair to see
what was the matter.
Away to the screen he flew
like a flash,
Only to find that the program
had crashed.
More rapid than eagles his actions
became,
He hollered and shouted and called the
machine names.
"now blast you and damn you, you
wretched contraption.
You try me and tease me to utter
distraction.
Out of the window, and over
the wall,
I'll kick you and throw you and
hold you in thrall."
His temper so wild, like a hurricane
flies,
And murderous sparks shot out from
his eyes.
So up to the keyboard, his chair
he drew
With a snarl and a mutter
(and some prayers too!)
And then, in a twinkling, Ventura
gave proof
That sometimes computers play up

and goof.
He sat back and watched, with relief
so profound
As the articles all came back
in a single bound.
There on the screen
the pages all sat
With their spaces and headers all
smugly intact.
The Editor twinkled and chortled
with glee
"The Newsletter is saved and I'm
almost free."
His face wreathed in smiles, he
started to work,
The mouse flew in circles
and stopped with a jerk.
And laying his red pencil
aside of his nose
And giving a nod from his chair
he arose.
He sprang to the printer and
with a push of the thumb
It started to print
with a satisfying hum.
I heard him exclaim ere he turned
out the light,
"The Newsletter's finished, so to all
a good Night!"