



## THE PREZ SEZ...



Happy New Year!

Yup... another year has come and gone and it's time for new beginnings.

Jim Richardson attended the annual APCUG Convention representing CCMV and will be sharing with us all of the information that he learned while he was there. Thanks Jim!! I'm looking forward to hearing all the new stuff that's happening.

I also received a bit of bad news in December. Sun City Gardens has a new Director. I was told that they are going to require our room back to use as an activities room, so they've asked us to move our computer lab. This news was a little devastating to me, especially after the problems that we had trying to locate a place for our lab just a year ago.

So... I sent out my 'plea' to all of my networking contacts, you all should have received it as well, and within a few hours received a reply that I'm hoping to be able to share with you by our meeting. I am waiting on a response from them now, and if it works out, the Board will take a look and see if it would work. We should also be able to arrange our cable connection there if all goes well.

Classes will be starting on schedule this month. SCG has given us 2-3 months to find a new home, and if we do move sooner, we'll just do it around the class schedule.

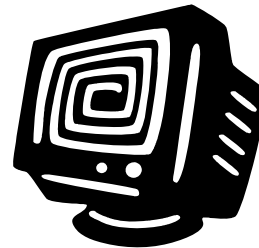
A new year begins, and I hope this is the ONLY 'opportunity' we will have to work with.

I wish you health, happiness and much love in the New Year.

Joannie

## Lon's Freeware of The Month

lwhis@hotmail.com



EZBack-it-up v2.0.1

Just the backup, ma'am. EZBack-it-up doesn't ask you bewildering questions--it just backs up your data where and when you tell it to do it. It can compare thousands of files in mere seconds. Check EZBack-it-up's logs to see what it's done. If even this much attention to backup is more than you can stand, just install the program and schedule regular backups.

EZBack-it-up is donateware. If you like the program, you may want to send the developer money to cover the cost of further developing EZBack-it-up. [Download](#)

### Aqua Dock

Aqua Dock gives PCs a dash of Mac-fashioned goodness, imitating OS X's animated launchbar. When you run your mouse over the bar, it reacts, expanding the icons for the items you mouse over. This helps you be absolutely sure you know what you're opening.



A technician went to his customer's house and found that the monitor had to be replaced. The customer immediately freaked out and got very upset at the technician. He wondered why as he put the monitor back down. Then she blurted out in a shaky voice, "you can't take that monitor, all of my data is in there"

### Board of Directors

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### Help lines:

#### **Windows XP Help**

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#### **Microsoft Word, Excel & PowerPoint Help**

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#### **Newsletter**

E-mail your articles,  
comments and suggestions  
to:  
fbporter@yahoo.com

#### **Web Page Address**

**www.ccmv.net**

*Take a look and take the poll  
Get help on the Message  
Board*

#### **Meeting Time and Place**

2nd and 4th Tuesday  
9:00 a.m. to 11:00 a.m.  
Seventh-day Adventist  
Church  
29885 Bradley Road  
Sun City, CA

### Fragmentation et al

By F. Verano

Having all program and data files stored in contiguous form on the hard drive is a key factor in keeping a system stable and performing at peak efficiency. You know that when you open a file, make changes and save it again over and over, it is broken into pieces and scattered across the hard drive. And the door is opened to a host of stability/reliability issues. It doesn't take many fragmented files to lead to crashes, conflicts and errors.

So what to do? If you don't address the problem (defragmentation) and you run into such failures (crashes, conflicts, etc.) you routinely plunge into "well-meaning solutions" such as uninstalling and then reinstalling software, re-imaging of hard drives, possibly replacement of hardware, as well as seeking refuge in the Help Menu.

Here are the most common problems caused by file fragmentation:

- a) Slow boot times and computers that won't boot up
- b) Slow back up times and aborted backup
- c) File corruption and data loss
- d) Crashes and system hangs/freezes
- e) Errors in programs
- f) RAM use and cache problems
- g) Hard drive failures

Even XP machines can suffer slow boot times due to fragmentation. I've seen such delays running into several minutes. I've heard of 20 to 30 minutes and some that fail to boot at all. It is not a problem of W9x or WME only. There are convoluted technical reasons for boot problems, according to Microsoft's Knowledge Base (**KQ228734** .... I quote: "This issue can occur when the NTFS boot sector code contained in logical sector zero of an NTFS volume is unable to locate and load NTLDR into memory due to the Master File Table (MFT) being highly fragmented." Blah, blah, blah. Who in hell understands that? What the KB seems to imply is that when the disk is fragmented it is possible that the loading process fails to find the junk from the hard drive to enable a boot to take place.

Why does this occur? For you guys at the club that eat up this stuff, here is more of the BS: "The NTFS bootsector code locates and loads NTLDR into memory. This involves reading the volume's MFT to obtain the root directory. When the MFT is highly fragmented, pieces of the MFT and other metadata that must be read in order to locate the NTLDR may fall outside the areas of the disk that can be read by the BIOS INT 13 routine. Thus the system fails to boot up." I'd like to add Voilá and blah, blah, blah again for emphasis. Actually, there is more of that but let's call a halt here.

Let's skip the slow or aborted backup. Nobody backs up anyhow. Though you should backup. I personally never had to use a backup in my 10 years with the PC. If I think about it I'll write about it in the future.

But yes, file corruption and data loss files, it is a problem in fragmentation are both traceable to fragmentation. In recent tests on W 2000 and WXP, a specially designed utility was utilized to fragment an NTFS volume. At only 40 percent full, the files themselves were fragmented resulting in the automatic creation of additional MFT records. When attempting to move one contiguous 72 MB file onto that disk, the result was the corruption of everything on the disk. Why? Excessive file fragments made it more difficult for the OS to function efficiently.

Here is where another KB article gobblygook appears: Booting became impossible because ...."key files needed for booting the operating system were situated beyond cylinder 1023 on the volume. But, given the CHS (cylinder/head/sector) setup on the machine, the boot sequence could only see the first 7.68 GB of the volume during the initial boot phase. The needed system file was situated beyond where the INT 13 BIOS interface could find it." Got it? For you and me it meant that fragmentation sort of

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pushed the file where booting could not find it which caused boot problems again.

Now about errors and crashes. It just is not obvious that a crash is attributable to fragmentation when it happens. Nothing tells you: "You fool, fragment this damned computer!" It would be better than the "blue screen of death." At least it would mean something. As a side note, I have seen computers that had not been defragmented in over 3 years and the owner complained of problems. There are several reasons for System hangs, time outs, failure to load, failure to save data and blue screens. Those hot shot engineers at MS could easily send meaningful messages to the user other than 'press any key to resume windows". In another area, input/output functions can slow down to a crawl or even cease to function entirely. When file pieces are scattered throughout the disk they are unavailable to the system when needed and a crash takes place.

Errors in Programs can happen too when applications and/or associated databases are substantially fragmented. Imagine the sheer size of some applications and the time it takes to physically gather up all of the pieces in order to load properly. In some cases, fragmentation slows down the loading of applications, sometimes significantly. In other cases, the application will time out or freeze. On Microsoft Word 2000, for example, an error message may appear stating: "There are too many edits in this document. This operation will be incomplete. Save your work." (Microsoft KB article Q224029). This is caused by insufficient disk space on the hard disk containing the Windows Temp folder as well as fragmented or cross-linked files.

CD Writers and such devices require data to be supplied sequentially in a steady stream. If fragmented, this data stream is not smoothly continuous. The system tries to gather file fragments. It struggles. Quality of video playback suffers and it leads to CD writes aborting. Obviously regular defragmentation increases the reliability of such devices. Although CD recording may fail intermittently the primary step is to defragment the hard disk containing the data destined for the CD.

Another area that suffers is the RAM and CACHE. Here, excessive overhead is required to compile files that are scattered around a disk in many pieces. Hard drive failure due to fragmentation is more subtle. If drives had hearts there would be more concern about how hard it is made to work gathering fragmented files. Frankly, I've never heard of hard drive failure specifically due to increasing hard disk head movement. But here is something you should know. When the defragmentation runs it can uncover bad areas on disk and it tells you that you had better to the scan first because it found errors. Remember that? Without running the scan first bad sectors may not get noted and fixed. Over time, failure to run the error scan can pile up the bad sectors, snowballing it, leading to the corruption of the entire drive. Failure to scan for errors and failure to do the defragmentation is really a mortal sin. You can go to hell if you misuse the computer!

I worry less about the life of the drive than the efficiency of the computer. That is why whenever I go to do a house call I first look to see when these functions were done last. However, I want you to think of this: If a file is fragmented into 100 pieces, the head has to move one hundred times to access it. If this is occurring every time a file is read or written to disk, the head and associated moving parts are effectively performing 100 times more work than one that is fragment free. Never mind the wear and tear on the disk. I'll buy a new machine before the drive gets a heart attack.

A study by American Business Research conducted on 100 companies revealed that over half of NT/Windows 2000 workstations had files fragmented into 8000

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## Department Leaders

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### *Registrar*

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### *Teachers & Assistants*

Various CCMV Members

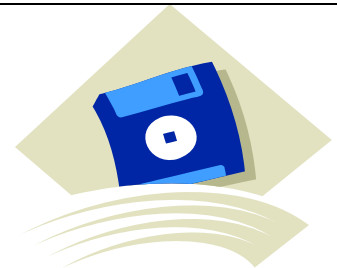
### **Sign Up for a Class TODAY!**

at

### **Any Computer Club meeting**

**Sun City Gardens**

**Kay Cenicerros Center**



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pieces! Fragmentation is a primary factor in the most common system stability/reliability problems. So, I ask again: Why "defrag"? To put the bytes where they belong and keep them there by frequent defragging and automating the tasks: Disk Clean up, Scan and Defrag. And save your soul too!

Back to Basics  
By Kirk Krirksey

I can imagine those early technical sessions when the developers of the USB standard first began to brainstorm their idea. The computer world needed a new type of data-transmission standard—one that was plug-and-play, fast, and that could be easily daisy chained together, creating dozens of usable ports on a single home computer. This architecture would open a new era in computing. Humble users could string together dozens of printers, modems, hard drive, network gear-on and on and on.

Yes, the new USB cable and connector would light the way to a computing promise land.

Certainly, USB designers were correct. Everything, and I do mean everything, now comes outfitted with a USB port. Perhaps the greatest advance in portable data storage in the last 20 years has been the invention of the Flash memory stick. Today, a device shorter than a stick of gum can be used to store megabytes of information-and can be worn as a necklace, to boot.

USB data transmission is one thing, but the brilliance of the USB design is the continuous delivery of a 5-plus-volt current to a plugged-in device. (By the way, this is why you should never jerk a USB Flash disk out of its socket. Doing so could cause a short and destroy the Flash memory and all your data. Instead, use the Safely Remove Hardware icon to power down the device before removal.)

-Computer Classes  
by Joannie

Call: (951) 301-6226  
Evening Classes (5:00PM-8:30PM) held at  
Sun City Gardens  
28600 Bradley Rd—Sun City

A \$60 registration fee includes the two evening classes, instruction manual, and the opportunity to return and audit the class once again, to brush up on things you may have missed the first time, anytime the class is running for FREE! (space permitting)

Class schedules to be determined

A Note from Frank Verano:

I was at the J & J Hearing aid place to get my new hearing aids. Mike, the proprietor, is opening up a new office in Murrieta and he needs a woman who is computer savvy (and typist) and also likes to interface with old people (who need hearing aids) to man the new office. I told him that I would look at my own computer club at the Club and to run note in the CCMV newsletter.

A job?

Would you like to supplement your income with a productive job? A hearing aid company needs a computer savvy woman to run the new office in Murrieta which is opening in January. Call F. Verano (951) 672-9012 for more information.



**Program your cell phone with "ICE"**

A local citizens group is working with the fire and police departments to implement "ICE."

"ICE" stands for "in case of emergency." It is a method for emergency personnel to quickly identify an emergency contact telephone number on your cell phone.

The citizens group are just beginning to promote this in cooperation with the safety personnel throughout the cities. The emergency personnel are being asked to check cell phones for "ICE" phone listings when they need to make an emergency contact if a patient is unable to make a call.

All individuals carrying a cell phone are encouraged to list their preferred emergency contact in their cell phone's address book as "ICE." ICE may be followed by the person's name with at least their first name, such as "ICE Mary." More than one contact can be listed in order of contact priority b/y listing "ICE1 Mary", "ICE2 John." Always begin the listing with the letters "ICE."

It may become critical for an emergency responder to contact a relative if you are unconscious or otherwise unable to make a phone call or notify someone of your condition. Permission to provide medical care or for emergency surgery may be the difference between life and death. It's simple and only takes a minute. Make sure you list at least one ICE contact on your cell phone today. ICE can make a difference.