



# Brevard Users Group



February 2004

## Pres Sez

By George Rymer

Members, another BUG year has come and gone. This month we install the new officers for the year 2004. Some of us are new and some of us are old (in more ways than one). I guess the point is, we have survived another year. Our membership is beginning to dwindle. We get a new member now and then, but then someone moves away, or the Good Lord has a roll call and we lose one or two more. There may be some sweeping changes on the horizon, as our membership gets smaller and the operating expenses increase. Although we have a little money in the bank now, our membership is barely at the "break even point." With this in mind, there are several solutions, but I'm afraid that none of them are the type you like to hear. It all boils down to "Something 's Gotta Give." Like; either "You Give More" or "We Give Less."

Our biggest expense is the Newsletter. We could save a bundle by having only an electronic edition (on the web and/or e-mailed to you). A lot of people don't want to give up their hard copy. We could always raise the dues, but that isn't a very popular thought either.

More advertisers in the newsletter would help, but I only see one person busting his hump to get more advertisers, and we all know who he is. More members would help, but I don't see anyone out there busting their hump to get new members. A couple of weeks ago we did have two members bring in about 5 visitors and I do thank them for that. It would be great if those people decided to join, but WE NEED MORE PEOPLE!!!

This will all be under study in the coming months and I welcome your suggestions, comments, and criticisms. It is your club, but if you want it to survive, you must take part and contribute to it, not just take from it!!!

Seriously, People ..... Think About It!!!

Later ..... George 

## Officers for 2004

President	George Rymer
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Questions involving advertising should be directed to **Advertising** at the address below.

Articles or items of interest for inclusion in the newsletter should be sent to **The Editor** at:

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Melbourne, Fl. 32902-2456 or  
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### THE NEXT MEETING OF THE BREVARD USERS GROUP WILL BE ON

*Wednesday, February 18th, 2004*

*AT 7:00 pm*

*IN*

*the Melbourne Library*

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**Mary  
Alice  
Grant**  
Secretary

21 January 2003 Monthly Meeting

Mr. Rymer read the ballot for new officers: George Rymer, President, Jack Nash, Vice President, Joan Hefter, Secretary, and Pete Lehotski, Treasure. Bill Rank made a motion to accept the ballot of officers as read; Oscar Litke 2<sup>nd</sup> the motion. Motion passed.

The topic for the meeting tonight was Smart Computing magazine. If you order a subscription to this magazine, you will then be qualified to view three other magazines via the internet and they are:

- PC Today**
- CPU Computer Power User**
- PC Novice**

Mr. Rymer noted that all three magazines are very good and informative. If you subscribe as a BUG user group, they (Smart Computing) will give away a free subscription to the club. All magazines are on line and can be viewed in total; however, you can only view them one time as a visitor, then you must subscribe to see them again. This magazine is for users of all skills and levels. It offers tips and tricks to master the operating system. Gives reviews and objective opinions on hardware and software. It also offers tutorial and "How did they do that?" columns. Their Technical Support writes trouble shooting articles as well as, tips and tricks to recover PC disasters. This magazine is one of the best that covers all aspects of the computer. The cost for Smart Computing magazine is \$29.00 per year.

George gave out several very nice gifts and the meeting ended 8pm.

Respectively given by Secretary,  
Mary Alice Grant

## **From The Webmaster**

*By Eric Arnold*

### **We have grown!**

This evening, I spent a little time searching the web for bugclub.org and was pleased to find the club's pages are everywhere! Regardless of the search engine used, each one revealed a long list of references to our club, and links to many pages within our site! All the .pdf format newsletters, and all the articles with in them are also available to the public via search engines.

What most members are unaware of is the blight of the previous owner of the bugclub.org domain name! Yea, it was the property of a Volkswagen Beetle club! They let the registration expire, enabling us to register it under our control. The Beetle Club now has a similar domain name: bugclub.org.uk the UK stands for United Kingdom. For a few months, they were taking all our bandwidth, as they had several links on their site using their old domain name bugclub.org. After sending them an email, informing them of our possession of the domain name, they were surprised to find the domain had expired.

Currently, our Club's site is doing really well which can be seen with the aid of the Server Statistics link on our site: <http://bugclub.org/webstats/> As you can see from the statistics, the software page is the 2nd most popular: <http://bugclub.org/software.html> The #1 is the BUG Club's server speed test page: <http://bugclub.org/BUGSpeed.html> This page is the most linked to page we have! That means there are several other web sites online which contain a hot link to it.

Within the monthly statistics pages, above the pie chart, is a list of the Top 20 Search Strings. A search string is the actual text people type in to a search engine when looking for something on the web! Currently, "What is a Floppy Drive" is the most frequently used phrase or string of text. The Club's web site now contains over 600+ HTML pages, 35+ .pdf pages, and there is more on the way! Thank you for allowing me to be your Webmaster!

Happy New Year to all! Eric



# Treasurer's Report

By Ted Glaser



January 22, 2004

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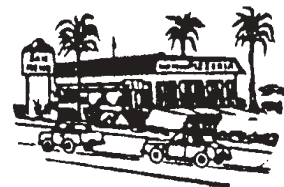
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## The Value of Removable Hard Drives

Allan Pogensky  
Las Vegas PC Users Group

One of the most frequent topics on any newsgroup dealing with operating systems or when computer users get together, is what's the best strategy for backing up one's hard drive. Hardly a day goes by where you don't come across literally dozens, if not scores, of postings on the various newsgroups relating to this subject. The queries (and responses) invariably focus on the problems the user has encountered in using this or that software backup program - either some third-party program or whatever built-in backup program is included with the user's operating system.

In my opinion, the best backup system for the average home user and even small business owner to employ in most cases is having his or her computer equipped with two removable hard drives. There are other advantages in having two removable hard drives on one's computer but the most significant one is providing a near fail-safe backup system. The speed, flexibility and peace of mind you get with this arrangement far outweighs (for most users) the relatively small additional cost of equipping one's computer with this hardware configuration.

Using this setup, backing up your hard drive is simple, straightforward, fast, and most important of all—effective. By easily and relatively quickly making a clone of your hard drive, using a software program like Symantec's Norton Ghost which is specifically designed for this purpose, you get, what seems to me, the ultimate backup solution given the present state of personal computer technology. Unlike backup programs that merely back up your data files - that is, the files you've created in the various programs and applications that you use - by cloning your hard drive you are making a bit for bit copy of the drive, in essence an exact duplicate of that drive.

Thus, you are backing up your operating system, your registry, all your programs and applications, your configuration settings, your data files - in short, everything on the hard drive that you have cloned. And

you're doing this in one fell swoop. And for added safety you can remove this newly-cloned hard drive from the premises, not to mention making another clone, if desired, for near-absolute security.

So when the day comes - as it surely will - that your hard drive fails because of some mechanical or electrical defect, it's a wonderful feeling to know that you have a perfectly good copy of that failed hard drive that you simply shove in the computer, boot up, and you're off and running. Or if you ever get some miserable computer virus that plays havoc with your system, isn't it nice to know that you have at hand a perfectly good virus-free clone of your hard drive? And then simply clone that "good" previously cloned hard drive to the virus-infected one so that once again you now have two perfectly good hard drives. And in the case where the hard drive is kaput because of some mechanical/electronic failure, you purchase a new hard drive, plop it in the removable tray, make two simple connections, shove it in the computer and then simply clone your good hard drive to the new one.

There's no need to partition and format the new drive; no need to reinstall your operating system on the new drive, no need to reinstall your programs and data files. None of this is necessary. You simply clone the previously-cloned hard drive to the new drive. And the added beauty of this arrangement is that you do all this from the comfort of your computer chair. There's no need to take apart your computer case in order to get into the guts of your computer and make complicated cable connections.

Everything is done outside of your computer because each hard drive resides in a removable tray (caddy) that you simply slide into the computer's mobile rack. In my case I use the Lian Li RH-42 all-aluminum mobile racks which are generally available from a number of vendors on the net. I've purchased mine from an online vendor, Directron.com who sells them 2/\$66 (plus shipping). I'm sure mobile racks from other manufacturers will serve the purpose just as well. I'm aware of many users who have been using inexpensive (about \$10 each) plastic mobile racks without any problems whatsoever.

*Continued on Page 6*

## *Hard Drives ... Continued from page 5*

As I've previously indicated, the cloning process itself is easy and fast. Using Symantec's Norton Ghost cloning program as an example, with the two removable hard drives connected to the computer, you simply boot up the computer with the floppy disk that contains the Ghost program and after a few key clicks the cloning process begins. My present computer has an Intel Pentium 4 2.0GHz processor and I can clone one hard drive to another at the rate of nearly 1 GB per minute. The cloning process is practically automatic and you need not be in attendance during the actual cloning.

I can virtually guarantee that once you begin working with two removable hard drives, you'll have but one regret and only one regret. And that is you didn't have this arrangement on your previous computer or computers. There is perhaps one negative to this arrangement and that is the additional cost involved in equipping your computer with the two mobile racks to house the hard drives, the second hard drive, and the software cloning program. I would estimate it adds roughly about \$100 to \$200 (as of June, 2003) to the cost of the computer depending upon the size of the second hard drive and the specific make and model of the two mobile racks. Naturally, your computer case should have available two 5 1/4" bays to house the mobile racks in addition to the 5 1/4" bays needed to house your other IDE devices (CD/DVD-ROM, CD-RW, etc.) that need 5 1/4" bays.

Mobile racks come in two basic versions, depending upon whether the hard drive to be housed is an IDE/ATA or SCSI device. At this writing I'm not aware of any mobile racks designed to house the recently introduced SATA hard drives, however, I'm certain it won't be too long before they come on the market. The software program I use for the cloning process is Symantec's Norton Ghost 2003 which I've recently seen selling on the net for about \$30 for the CD-only version (no retail box), which is really all you need. (There's an older 2002 version of Ghost available which is considerably cheaper than the 2002 version; in my experience the 2002 version works just fine for straight cloning one hard drive to another hard drive regardless of whether the file system is FAT32 or NTFS). The Norton Ghost program is also included in

Symantec's Norton SystemWorks 2003 Professional Edition. There are other disk cloning programs available, e.g., Powerquest's Drive Image and Acronis' True Image among them, both of which seem to get favorable reviews, however, I've had little or no experience with these programs so I cannot speak to them. Another cloning tool is the installation disk that comes packaged with the retail boxed hard drives from several manufacturers, including Maxtor and Western Digital. When you consider the enormous advantages of having two removable hard drives on your computer, the additional cost in equipping your computer in this fashion pales into insignificance.

*Reprint from the online NL of:  
The Computer Club of Ocean County, NJ*



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## **XP Tip**

### **Use the ultimate configuration tool (Professional Edition only)**

One of the most full featured Windows XP configuration tools available is hidden right there in your system, but most people don't even know it exists. It's called the Local Group Policy Editor, or gpedit for short. To invoke this editor, select Start and then Run, then type the following:

gpedit.msc

After you hit ENTER, you'll be greeted by gpedit, which lets you modify virtually every feature in Windows XP without having to resort to regedit.



# MSCONFIG -

(Microsoft Configuration Utility)

- Secrets to your computer startup

by Bruce Cramer, April, 2003 PC Alamode

Do you ever wonder what takes your computer so long to start up? In most cases the reason for that is that computer manufacturers and software developers think you need or even want all those programs and accompanying little icons to startup every time that you turn your computer on. By the time Microsoft, Compaq or whoever your computer manufacturer is, and a few software companies are done with your computer you probably have 10 or more different programs running into each other every time your computer starts. Most of the programs that startup when your computer starts up are being shoved in there vying for room for no reason at all, but you can prevent that. I used to work as a computer technician at a national computer chain store where they charged a pretty penny for this little operation but you can do it at home armed with a little knowledge.

First of all, MSCONFIG stands for Microsoft Configuration Utility. If you click on Start, run, then type MSCONFIG you will see 6 tabs. On the far right you will see Startup.

Click on the startup tab and there you see what loads up when your computer starts. Many applications put items in your startup group that are absolutely unnecessary such as Real Player streaming audio, calendar birthday reminder, bill payer reminder to don't recommend that you load any unnecessary applications on startup, hopefully you will know about aunt Jenny's birthday before your computer tells you. It's like the guy who is unpacking the family car at the beach, he dropped the family off near the water so they are there ready to have fun but dad has to go park the car 1/2 a mile away then walk through the hot sand loaded down with the sun tan lotion, towels and ice chest. Do you really think he needs to carry any more? Even without the beach balls and rafts he's lucky if he doesn't fall and spill the sun tan lotion all over the towels - yes that would be a mess.

After you turn your computer on it has to wake everything up (BIOS, network card, ports, etc.) load all its drivers, the bare essential

applications, and the fonts. The only startup items you absolutely need are:

- ScanRegistry
- TaskMonitor
- System Tray
- LoadPowerProfile
- Your antivirus software

There is an extensive and regularly updated list of startup files and what they do here. As of February 27, 2003, this guy had 2,277 files listed. I applaud his enthusiasm, but he really should get out more often. The general rule of thumb is - if in doubt leave it alone. After you uncheck the boxes of unneeded items and click Apply, OK, you will be asked if you want to restart or exit without restarting. You can do either, but you will not reap the benefits of unloading the items until after you restart. After you restart your computer Microsoft will give you a message that says you have run the MSCONFIG utility and wants to know if you are satisfied with the results. If you do not want to see this message again, check the box. You should notice an immediate improvement in performance and stability, all for free and you did it yourself the all natural way without adding more programs such as Ram Booster or an "optimizer" program which only leads to more memory use and possible software conflicts.

MSCONFIG is not available for Windows 95, NT, or 2000. However there is a free "Startup Control Panel" at Milin.net that will work just as well for Windows 95 and if you are using Windows NT or 2000, you can download the official, Windows XP version of MSCONFIG on the Tech Guide Web site.

*Bruce is recently retired from the Army and is a regular volunteer at the ..Doctor is In" each Friday at the Learning Center. He is A+, Network+, i-Net, certified as well as a Microsoft Certified Professional in Windows XP, and provides on-site computer services to individuals and businesses.*



# PC Madness

By Les J. Kizer,  
Greater Tampa Bay PC Users Group

The causes for insanity are only recognized by looking backward at one's tracks in the snow. What contributed to such a state? Would insanity have occurred if one didn't experiment with various application programs and even the operating system itself? Or is Microsoft the cause? I'm not sure. In looking back, however, I discovered madness.

## Possible Causes of Madness

\* Top of the list is the Microsoft Windows operating system. I like stability, to do a job once and know that it is finished. Since the children left home, this fool operating system is the most unstable thing in my life. Each version promises improvements. Yes, it improves, but it continues to act as someone who is sick or changed their medication by breaking in new ways. When will they really fix the darn thing?

\* Another contributor to insanity - the ever increasing insecurity of the Internet with its e-mail. We have viruses and threats of viruses that go beyond amusement to sabotaging our lives. Just for protection, we need several applications, such as: credit card protection, GRC leak tests, Kookaburra's Cookie Pal, Lavasoft's Ad-Aware, McAfee's Antivirus, a pop-up stopper, SPAM protection, SpyBot checker, Symantec's Norton Antivirus, Web-link validators, and ten dozen others. When will they really fix the darn thing? And all these protection programs must be kept constantly up to date, like we have nothing else to do with our time.

\* As a generality, most application manufacturers produce higher quality products than Microsoft; however, all applications have bugs. Bugs require us to occasionally check for updates to those programs. Most of these programs are so much better.

\* And then there is that huge thing within Windows called a "registry." Almost every action passes steps through this giant table. Every time an application program is installed, the registry becomes larger.

Uninstalling the same application might reduce its size, but never to the smaller size it was before. Just using an application may grow the registry still larger. As the registry grows, response time slows. So, now we need iv16 Power Tools, Microsoft System Tools to monitor what is happening, Symantec's Norton System Works, and a host of other small programs to shrink the registry - and still it contains useless junk. And if you edit the registry yourself, your system is in mortal danger. When will they get rid of the darn registry?

In just maintaining the PC, the operating system and its application programs, how do we manage to have time to use it for something useful. Is there any wonder that for an experimenter, like me, madness lurks in the wings?

## Operating System

Early in the Justice Department monopoly suit against Microsoft, Justice proposed breaking Microsoft into five companies along product lines. Myron Kandel, CNN, suggested an alternative breakup: Yes, setup five companies; however, give each company the entire product line and let the five companies compete against each other in the market place. (Can you imagine what our automobiles would be like if they were all made by the same company?)

There is nothing I, as an individual, can do about the operating system because there is not yet an alternative desktop operating system of merit. I'm stuck, you are stuck, we all are stuck with whatever Microsoft gives us.

## Mad Logic

By compartmentalizing the usage, I could reduce the size of the registry, eliminate some of the Internet and e-mail problems, and have a place to experiment.

Ah! My kingdom for more than one PC. That's it! When I buy a new PC, I'll keep the old PC for a toy. But then all of the latest hardware is on the new PC, and, shucks, I wanted to experiment with the latest stuff. In addition, I do add and change hardware as the spirit moves. Well, at least it sounded like a good idea.

*Continued on Page 9*

## ***Madness ... Continued from Page 8***

### **Initial Stages of Madness**

About then I saw an ad for swappable disk drives. Why not have several swappable C drives: one for very stable bread and butter applications that never see the Internet, one for Internet and e-mail, and one for experimenting. To swap a disk requires a power-off reboot; that is, it is necessary to turn the power off, physically swap the disk drives and then turn the power on.

### **What Needs to be Shared**

To share data, a few applications need to be common among the three systems. This was accomplished with another physical disk drive, installed as the D disk.

On this D disk are installed the applications common to all three C disks, not many: Corel Office, Juno e-mail (because it is not an Internet exposure as some other Internet products are), and several testing programs. This installation allows data produced while using a program from one C disk to be available when using another C disk. To easily accomplish this feat, I designed a base operating system with the applications that are common to all three disks. This base operating system is stored on another disk drive. Since I expect the operating system to fail, on failure or even slowness, I simply copy the base operating system over the failing operating system, add the few applications that are unique to that PC, and continue.

### **Backup**

As you know, there are many ways to backup a system. I choose to install a third disk drive to contain a mirror of my data. This third disk drive also contains the base operating system. Since it is so easy to replace an operating system with the clean base operating system, and there are so few applications running on each operating system, I no longer backup the actual operating system.

### **Upgrades**

Each time I replace a defunct operating system with the base operating system, the latest Microsoft upgrades are installed on the base operating system. It is done by copying the base operating system to the C disk, doing the upgrade, and then copying the upgrade C disk to the base operating system.

Because of all the problems Microsoft has with the Internet, I upgrade the Internet C disk religiously. As for the other two C disks, unless there is a problem, I don't upgrade.

### **Experimenting**

Experimentation has become a delight. The most positive thing - I can install a program on the experimental PC, learn the program, play with it, and only then decide if I want the program installed on the bread-and-butter PC or the Internet PC. If the experimental system blows up, the base operating system is installed immediately on the experimental PC.

### **Conclusion to Madness - Not Really**

In this example, the latest hardware is available to all three systems. Since fewer applications are installed on each PC, registry problems are drastically reduced and performance is good. This combination has worked well for several years.

### **The End to Madness**

No way. An inventive mind can always do more. Stay tuned.

*This article is brought to you by the Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which B.U.G. is a member. Les Kizer is a member of the Greater Tampa Bay PC Users Group, the Mid-Hudson Computer Users Group, and SeniorNet PC Users Group - University of South Florida, Tampa.*



### **\*\* Member needs a ride.\*\***

We have a member in Palm Bay who is looking for a ride to the meetings.

Anyone from that area interested in helping, E-Mail: [rossheim779@cs.com](mailto:rossheim779@cs.com)

## IDE hard drive size limits

by Brian K. Lewis, Ph.D.\*

Member of the Sarasota Personal Computer Users Group, Inc.

Believe it or not, when you try to upgrade your hard drive to one of the new, wonderful, speedy drives that are 20 gigabytes in size or larger, you may hit a drive size limit. Your computer's Basic Input/Output System (BIOS) or your operating system may not allow you to access the full size of your drive. You may even find that your system will no longer boot and you will not even get an error message. Most hard drive manufacturers provide installation software to help overcome these problems. However, in PCs with the Windows operating system, drives using such software may run at slower than their maximum speed. In order to understand how to determine whether your PC may have such a problem and how to overcome it, we need to consider the source of these problems (don't let the large numbers scare you off.)

IDE (Integrated Drive Electronics, also referred to as ATA) hard drives identify themselves to the system BIOS by the number of cylinders, heads and sectors per track. This information is then stored in the CMOS. Sectors are always 512 bytes in size. Therefore, the capacity of a drive can be determined by multiplying the number of cylinders times the number of sectors times 512. The BIOS interface allows for a maximum of 1024 cylinders, 255 heads and 63 sectors. This calculates out to 504 megabytes. This is also referred to as 528 megabytes by drive manufacturers that consider a megabyte to be 1,000,000 bytes instead of the programming standard of 1,048,576 bytes. Consequently, the true capacity of the drive is less than the advertised value.

IDE drives larger than 504MB must have more than 1024 cylinders. In order to overcome this limitation in the BIOS, a system called Logical Block Addressing (LBA) was instituted. This is also referred to as the INT13h extensions. This system translates the cylinder, head and sector (CHS) information into a 28-bit logical block address. This address is used to read/write data to the hard drive. The LBA system was first applied to computer systems with BIOS

dates after July 1994. However, this did not solve the whole problem. Some BIOS manufacturers set cylinder limitations in the BIOS which limited drive size to just over 2 gigabytes. This matched the Windows 95 16-bit file allocation table (FAT 16) limit of 2 gigabytes per partition. With the advent of FAT32, the BIOS limit was raised to 8.4 gigabytes. Further extensions of the INT13h interface allowed the BIOS limit to be increased to 32 gigabytes.

In general, computer systems with a BIOS dated 1998 or later can work with drives up to 32 gigabytes (GB) in size. The 32GB barrier is due to the inability of the BIOS to address an LBA that is larger than 66,060,287. Only in the most recent computer systems has the BIOS been upgraded to work with drives larger than 32GB. In addition, in some computers, a 64GB barrier is still to be overcome. So, the primary limit to the size of the hard drive your computer can use is the LBA limit of your system's BIOS.

The other source of drive size limits has to do with the operating system. Windows 95-A or the first version of Win95 could support an 8.4GB hard drive. However, because of the size limitations of the FAT16, you had to partition the drive in 2GB partitions. That meant five partitions on an 8.4GB drive. Microsoft does say that this version of Win95 will support drives of up to 32GB, providing the partition size is no greater than 2GB! The limit of the FAT16 system is due to the maximum number of clusters that can be addressed is 65,525 ( $2^{16}$ ). Multiplying this number times the maximum cluster size (32,768 bytes) gives the partition size limit of 2GB.

Windows 95B introduced the FAT32 system. In theory, this new file allocation table system can address a hard drive that is 2 terabytes (2,199,023,255,552) in size. The FAT32 table does not scale well in that as its size increases, it takes more time for Windows to find information in it. It also takes more time to calculate free space at boot-up. The maximum size of the FAT32 table is about 128 megabytes. The maximum size of any one file on a FAT32 drive is 4 gigabytes. Win98, WinME and Win2000 all support the FAT32 file system.

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So what this seems to boil down to is that you need to have the most current BIOS in your system and an operating system that supports the large drive you want to install. If your computer has an older BIOS (before 1998) then you need to see if a more current BIOS is available from the computer or motherboard manufacturer. Motherboards built in the past few years generally have a flash BIOS that can be upgraded. If you cannot upgrade the BIOS, then the alternative is a third-party software solution or an IDE controller board.

All of the major hard drive manufacturers provide utility software that can accomplish the necessary LBA translations for very large hard drives. However, not all of these software solutions work with the Windows protected mode driver (ESDI\_506.pdr). In some cases, the software drivers work only in real mode. This will reduce the speed of data transfer to and from the hard drive. You should ensure that you are using the latest available version of the third party software so that it will be fully compatible with the Windows protected mode drivers. Just because you just bought the drive doesn't mean that newest version of the software was included. You will need to check the manufacturer's Website for the latest version information. This utility software includes "Maxblast" from Maxtor, "Disk Manager" from Ontrack, and "Data LifeGuard" from Western Digital. There may be others, but these are the ones I am most familiar with. The latest versions of these utilities work very well in checking your systems BIOS to determine if it will support the new drive you are installing. They will also assist you in partitioning and formatting the drive.

However, even utility software cannot prevent the system from locking up if the BIOS cannot identify the parameters of your drive. In that case, you may need to consider a hardware solution by either reducing the size of the drive you want to install or purchasing an IDE controller card. The advantages of purchasing a controller card are that it has its own BIOS, which in the newest PCI cards, will work with the large hard drives. This is especially true of the drives that are larger than 30GB in size. In addition, these add-on cards increase the number of IDE devices that can be

installed in your computer from 4 to 8. Many people have added ZIP drives and CD writers to computers that already had a CD-ROM and a hard drive installed. This uses up the four IDE channels that are built into the motherboard. By installing another IDE controller card you can now add up to four additional hard drives to your system. Just be certain you have an available PCI slot before you decide to buy a controller card. You will note that all this discussion has been about IDE drives. The interesting part of this, to me anyway, is that this does not apply to SCSI drives. The BIOS on SCSI controller cards has allowed for the geometry translation of very large drives since about 1994.

As you can see, adding a new hard drive is not as simple a proposition as the ads would lead you to believe. However, with proper preparation, adding a larger drive will not turn out to be another frustrating computer experience. A little planning and knowledge will save you a lot of effort during the installation process.

*\*Dr. Lewis, a former university & medical school professor, is a computer consultant doing instruction, hardware/software services and system upgrades.*

*He is available to help you with your home or business computer problems. He does make house calls and can be reached via e-mail at [brian\\_klewis@hotmail.com](mailto:brian_klewis@hotmail.com) or voice mail at (941) 925-3047. Note: there is an underline between the n and the k (n\_k) in the email address. :*

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# Quirky XP

by Robert Nelson  
Chautauqua Cyber Club, Inc.  
DeFuniak Springs, FL.

I recently started switching my computer to the more user-friendly Windows XP operating system.

Microsoft's definition of more user friendly is they just never tell you when things are messing up. One of the strangest quirks I have come across is that, in a default installation, your computer is actually configured to reboot when it has a problem. Now I understand the logic behind this. In the days before XP, I will refer to as BXP, when your computer was asked to do something it did not want to do, it would tell you by displaying a solid blue screen.

Those of us in the business referred to this as the "Blue Screen of Death." You see it in Microsoft technical articles as BSOD. This usually meant that you had lost hours of work and were relegated to starting your project over at the last point it was saved. In other words you started all over again because no one saves anything until they are finished.

The good thing about a BSOD was that it really did give you some indication of where a problem might exist, sort of a nudge in the right direction. And if you ever wanted your computer to act right again after the BSOD, you restarted the computer. Well now enters a more user-friendly Microsoft with the new Windows XP that never gives you the "Blue Screen of Death." On the surface, that seems great. In fact I have had XP installed on my computer for over a month and have never seen a Blue Screen.

But I did notice a quirky little thing happening from time to time. For no apparent reason, my computer would reboot. Most of the time it occurred whenever I left a program, but sometimes it would happen while I was in the middle of something. So I did some reading and poking around and I figured out how they fixed the "Blue Screen of Death" problem. Now whenever you get a BSOD, you do not get to see it. You do not get the helpful codes; you do not get the diagnostic information to try to repair your computer. Instead, you just get a reboot: A cold hard lack of information reboot! And, of course, a nice note from Microsoft, on restart, asking if you would like to send them an error report on the problem.

I wonder where those things actually go. Anyway, I did find a way to turn this off, so things go back to giving you information so that your computer may one day be fixed. Now these instructions are for users of the Windows XP operating system. If you bought a new computer in the last few months or got one for Christmas, you more than likely have this operating system.

Click on Start, click on Control Panel. Double-click on System. This should bring you up to a System Properties window. Now click on Advanced. Then click on the Settings button under the Startup and Recovery section. Under System failure, you will see a check mark in a box next to Automatically Restart. Click on that so that the check mark is gone.

Then click on OK. Then click on OK again. You will more than likely have to reboot to make the changes effective. However, this will get your computer to the point of giving you error messages instead of just rebooting. I have no idea why this occurs, but since I did this, my computer no longer reboots or gives me errors. I am sure one day, it will happen again.



## Restore Registry

This is a great Windows 98 component that most people do not even know about. It is worth using whenever your computer starts to act crazy, especially if you have just installed a new application.

1. Start your computer up in MS-DOS mode.
2. When you see the C prompt, type:  
CD\windows\command.
3. Press enter.
4. When the prompt reappears type:  
scanreg/restore.
5. Press enter.

This will bring up on the screen your last five registries.

Just check an earlier registry and reboot.

Your problem should vanish.

**Editor's Note:** *This was sent in by a member.*

*I tried it, and it seemed to be OK. At least it didn't hurt my computer. However, we provide this type of item FYI only, and assume no responsibility for its performance or consequences of its use.*



# Newbies Corner

by Jim Hally B.U.G. member

## Got Mail ?

The bottom line is that you really don't know. Isn't it amazing how much we rely on E-Mail? We almost don't care what it is as long as we get it. It is something that we look forward to and almost demand on a daily basis. A few weeks ago I got a panic call on my answering machine in which my dad was asking if I got his E-Mail. I could tell he was edgy by the tone of his voice. When I got home the phone rang and there he was.

It turns out he didn't get any E-Mail one day. He immediately called his ISP and wanted to know the score. With all the consolidation in the industry, his ISP has changed. He was GTE and now Verizon has taken that over. The Verizon techs wanted him to change over to a Verizon address and told him that would solve all his problems. He really didn't have to do this and resisted. He did let them talk him into changing his settings and that led to all kinds of problems. He eventually got back to or close to his original settings and all is well. The whole thing started because he didn't get any E-mail one day. I tried to tell him there were more important things to worry about. Hell fire! If you don't get any snail mail do you call the Post Office? It turns out the mail server had a problem and the next day he got something like 21 E-Mails. Don't panic. It will work itself out. It is only E-Mail for Pete's sake.

## Spam

A recent study by Brightmail has determined that over 50% of all E-Mail is spam. That is just an incredible amount of junk on the Internet. Remember it takes bandwidth to send this stuff over the wires. In an attempt to put a crimp on spammers new laws have been enacted. Unfortunately there seems to be little bite to the legislation or at least it looks like it will be fairly easy to circumvent.

Our ISPs have been attempting to keep a lot of this spam from reaching our mailboxes. Just about all of them use some sort of spam filter. My latest pro-

vider is doing a wonderful job of this. As I type with one hand and knock on wood with the other I can say that I receive ZERO spam with Atlantic.net.

## The Question

What am I missing? According to the ubiquitous Fred Langa it could be a lot of mail. His recent article in Information Week brought forth some astonishing facts. He asked for volunteers and with their addresses in hand he sent them all an E-Mail. He sent them in various ways and he asked all the participants to reply in various ways. All told, he found that only an average of 60+ % of the E-Mails reached their destination. Those numbers reflect both his outgoing messages as well as the replies to him. Once again, that is incredible.

Where does this stuff go? If it went to a landfill in our neighborhood we would be screaming bloody murder. It ends up on your ISP's mail server. All ISPs use some sort of filtering method. Of course some are more thorough than others. Very few are free and although I never heard of an ISP asking for a rate increase because of the filtering process they use, it gives them carte blanche in maintaining their rates where they are. In reality, with the amount of consolidation in the industry, rates should be coming down. Spammers are costing us money.

I have no idea how many ISPs there are in the world but it has to be at least a million. When spam first became a problem, the gurus started to notice that they came from a relatively few number of ISPs. The folks got their heads together and started blacklisting these ISPs. This appeared to be a good idea and worked well for a while. Lets say DEF.com found some spammers and kicked them off their subscriber list. The question is how does DEF.com get its name off the blacklist? Take it a bit further and assume XYZ.com takes over DEF. Is XYZ now put in the same pot as DEF? Is all their outgoing mail, now suspect? Is XYZ now on a blacklist for the sins of DEF? If you have a friend who uses XYZ, is he now getting his outgoing mail (to you) scrutinized and lumped in with what is considered spam from DEF's static IP address.

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### *Newbies ... Continued from Page 13*

It gets worse than that. Spammers got wise to this blacklist stuff and now use a spam and scam method. They use an ISP for a while then move on to another, then another. The gurus can't seem to catch up to these bad guys. The good guys are adding to the blacklist daily and poor old XYZ is trying to convince them to drop DEF and themselves off the blacklist. What a merry-go-round. One of the best known, blacklist services MAPS RBL (Mail Abuse Prevention System Realtime Black List) blocks only 25% of the spam but it also blocks 34% of good mail. Those are pretty lousy percentages. (Of course if you were a major league baseball player you could make a million or two a year with those numbers.)

Our webmaster Eric Arnold did a brief column in our newsletter concerning filtering our mail by using rules within your E-Mail client. At the time, I was getting a lot of spam. I chose to make a rule to send anything with the words, click on, within the E-Mail to the deleted message folder. For about two weeks, I would read my mail then go and see what was in the deleted message folder. Sometime during the third week I got bored with the process. During the next month I made arrangements for a golf package. Upon arriving in Sebring, I was told that if I had read the E-Mail they sent me, and chose Click On, I could have had a \$25 discount. RATS!! This brings to light another problem created by spam. We get so used to just deleting this stuff we sometimes throw the baby out with the bathwater. Ask yourself how many times this happened? You run into someone you correspond with and they ask you how you liked the E they sent you. Of course you reply. "I never got that one" As you walk away you wonder "Did I delete that?"

When an ISP uses this method it is called pattern matching. It saves some headaches but as you can see it is hardly foolproof.

### **Bayesian Mathematical Analysis**

Fred Langa's work led me to an article by Paul Graham and his work on this subject. The name comes from Reverend Thomas Bayes who did work on probability in the early 1700s. In other words

statistics come into play. Mr. Graham has found, that statistically, terms like "teens" "per" and "FL" are good indicators of spam. Just as the html code for red is a great indicator of pornography. The Bayesian approach considers all the words in a message both good and bad. Words contained within the message such as "tonight", "apparently" and "though" contribute to the probability of an E-Mail being good while words like "unsubscribe" and "opt" tend to be spam. Spam is cost effective, plain and simple. The response rate is terrible (only about 15 per million) BUT! It costs almost nothing to send it. Statistics can be funny in that you can use the numbers to say what you want them to. i.e. If crime goes from 5% to 10% is that a 5% increase or a 100% increase. In reality it is both. 15 out of a million is a brutal ratio. However when you only have to write one E-Mail to get the 15 responses it is great feat.

Most ISPs are gravitating towards the Bayesian method. Popular programs being used are SpamAssassin, Brightmail and SpamNet and SpamCop. Once again these programs are not perfect but are being refined all the time.

In closing I think that the use of Bayesian filters along with the not so perfect blacklists we will eventually make it less attractive for spammers and at some point things will turn in our favor. The question is what aggravation will take its place?



### **For sale**

**19" flat screen CRT Samtron model 96BDF.  
8 months old, \$100.00  
Call George, 409-9064 or Ted 777-4591. 03/04**

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Hutch style computer desk with roll out keyboard tray, and additional adjustable shelves for storage. \$40.00 Call 723-1719 02/04

## Special Interest Groups

### WINDOWS SIG

Meets 7:00 PM Thursdays  
1st & 3rd Thursday at Eau Gallie Library.  
All Other Thursdays at Melbourne Library on  
Fee Avenue.

### BEGINNERS SIG

Meets at 6:30 pm. Thursdays,  
before the Windows SIG.  
This is a trial, if we need more time,  
we will make other arrangements.

### IMAGING SIG

Meets at 7:30 PM the second and fourth  
Thursdays, after the Windows SIG, at the  
Fee Ave Library in Melbourne.

### NEWSLETTER SIG

Meets twice a month on the Saturdays before  
and after the BUG monthly meeting.  
Members interested in helping develop the  
newsletter are welcome.  
Place is Jim Townsend's home  
call 728-5979 for directions.

### TINKERS SIG

Meets on most Sundays at  
Bob Schmidt's house.  
Call 952-0199 for directions  
and to verify meeting.

## BUG Club Information

### BUG E-MAIL LIST

To be included in the BUG E-Mail roster,  
send an E-Mail to George Rymer at:  
**[grymer@cfl.rr.com](mailto:grymer@cfl.rr.com)**.

We will need your full name, E-Mail address and  
your BUG membership number. You will then  
receive notices and updates on BUG activities,  
special events, changes to  
schedules, etc.

### BUG Board of Directors

Meets the second Wednesday of the month at  
the Fee Ave. Library, in Study room 1  
Time 6:00 pm to 7:30pm

## Sponsorship Rates

	<b>4 Months</b>	<b>8 Months</b>	<b>12 Months</b>
Full Page	\$ 160.00	\$ 305.00	\$ 440.00
Half Page	\$ 85.00	\$ 162.00	\$ 232.00
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## Benefits of Membership In The Brevard Users Group

Annual Subscription to the B.U.G. Newsletter.  
Participation in Special Interest Groups.  
Seminars and Workshops.  
Fellowship with other knowledgeable computer users.  
Stimulating and lasting friendships.

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## Brevard Users Group Membership Application

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## Brevard Users Group Directory

### Meetings:

Are held at the Melbourne Library on Fee Ave. the third Wednesday of the month at 7:00 PM.



### Membership:

Is by application and payment of \$25.00 annual dues. Membership is for 12 months from receipt of dues and includes a year's subscription to the newsletter.

### Mentor Program

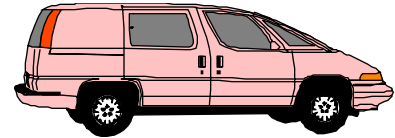
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### MOVING?

Don't miss out on any issues of the BUG Newsletter. Send your new address to:

Brevard Users' Group

Attn: Treasurer

P. O. Box 2456

Melbourne, FL 32902-2456

& e-mail to the Newsletter at [jimtownsend@earthlink.net](mailto:jimtownsend@earthlink.net)

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