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# PPCUG NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

## Backing Up Your Hard Drive Using Acronis True Image Home 2009

Gene Barlow

Monday, July 13, 2009, at 7:30 p.m.

Computer backup is critical. Make sure you are adequately protected and can recover from unforeseen events such as viruses, unstable software downloads, and hard drive failures. Have a well thought-out backup and recovery plan. This is essential to put your system back together again in minutes, not days or weeks. This is an important topic that every PC User should implement on their computer. Gene Barlow will be demonstrating using Acronis True Image, one of the most popular computer backup and recovery applications.

Gene Barlow has been a presenter in the user groups for 25 years. For many years he was in Technical Marketing and Management positions at IBM.

Gene will be presenting via a live Webinar. The Webinar will provide you with an active view of his presentation, allowing you to see and hear his slide presentation, see his software products demonstrated live, ask questions and receive live answers at the meeting.

Mercer County's Lawrence Library  
Meeting Room 3

US Alternate Route 1 South & Darrah Lane, Lawrenceville, NJ

*Meetings of an organization at any of the facilities of the Mercer County Library System  
in no way imply endorsement of its programs.*

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### Upcoming Schedule

August 10, 2009 -----	Joel May—Weird and Wonderful Web Sites
September 14, 2009 -	Peter Laudati—Microsoft Windows 7
October 19, 2009 ----	David Soll—Should you upgrade to ----- Windows 7
November 9, 2009 ---	tba

## About PPCUG

### Regular Meetings

Second Monday of the month at the Lawrenceville Library, Alternate Route 1 and Darrah Lane.

7:00 PM: Social Time / Tech Exchange

7:30 PM: Meeting comes to Order

7:45 PM: Featured presentation

For information about upcoming meetings or joining PPCUG, see:

<http://www.ppcug-nj.org>

or email us at:

**ppcug.nj (at) gmail.com**

(Please include "OK" in the subject line.)

### Board Meetings

Board meetings are held as needed.

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### 2009 Annual Dues

Dues are \$40 per calendar year with a mailed newsletter or \$20 per year with online access to the newsletter. New members pay \$3.25 or \$1.75 per month times the number of months remaining in the current year.

## Summary of the June 2009 Meeting

At 7:30 p.m. Program Coordinator Sol Libes started the meeting. Sol announced upcoming meetings for other computer focused organizations in the area.

Mark Streitman of Evolutionary Thought, LLC showed us how to build a PC based Home Entertainment System.

*Submitted by Clarke Walker*



## Link of the Month

Concerned that you or some product you use has been recalled? Then check at:

<http://www.recalls.gov/>

Have you discovered a useful link or add-on? Then share it with the members of the P PC UG.



## Clean Up Your Room/Desktop - Part I

*by Ron Hirsch, [ronhirsch1439 \(at\) comcast.com](mailto:ronhirsch1439@comcast.com)*

**Contributing Editor, Boca Raton Computer Society, FL, [www.brcs.org](http://www.brcs.org)**

So, does that line ring any bells? If you're a youngster, you've heard your elders tell you to clean up your room very often. And if you're not a youngster, then you use the line yourself on your kids or grandchildren. Well, I have no young kids around anymore, but I often use that line (with a slight change.) I'm constantly telling people to "Clean up your desktop," with "desktop" being their computer screen after the machine has booted up, and before any programs are run.

There are some desktop differences between the different Windows versions. And, some companies such as Dell and Compaq very often install a "special" arrangement on the desktop, mostly to keep their name in front of you. Also, there are programs which generate their own desktop arrangement. But, they all generally respond to the procedures presented below. Once you become an expert in this area, you'll have no problems with the finer points and variations.

Since most of you are using Windows XP, and since I use XP on all my machines, all the activities discussed are based on XP. I have not used Vista, but I would assume it's the same there. One thing I do remember however, is that in Windows 95, desktop icons did not automatically line up in rows and columns. In XP, when you move an

icon, it automatically snaps to the nearest position which keeps the rows and columns aligned.

The average computer user, even those who should know better, generally have disaster zones for the desktops. There are icons all over the place, not in any order and not lined up. And, there are many, that when I ask what they are, I'm told "I don't know." And, when I ask to have Windows Explorer or Notepad opened, there's usually a lot of scrambling, to find out where the icon is located.

Many programs, when installed, will place an icon on your desktop. Sometimes they ask you during the install if you want this - and sometimes they don't ask. There is always a tendency for software companies to grab real estate so that they can prominently keep themselves in front of you. Some newer computers running Windows XP/VISTA may even start off with almost nothing on the desktop. If you want to go back to a more conventional appearing desktop, right click on the desktop, and view the various options you have. There is probably a choice to revert to an "old-fashioned" desktop, which I personally prefer. Most people keep their medications in a medicine cabinet, canned goods in the pantry, garden tools in the garage, etc. But when it comes to their computer, they are as disorganized as is humanly possible. They feel intimidated by their computers, and don't wish to antagonize it. So, the thrust of this article is to go back to real basics again, and give you some information on organizing and cleaning up your desktop. If you're already super organized, you can skip this article, accept my apologies, and move on. But 99 out of 100 of you probably don't qualify to get the gold star for desktop organization. Once you do the tasks presented, you'll probably wonder why you didn't do it sooner. It not only is much easier to work with a good functional desktop, it looks prettier also, and will impress those who see it.

#### WHY HAVE ICONS ON THE DESKTOP?

Most users are familiar with the primary way to run a program. Click on START>PROGRAMS, and one can navigate to all the programs that are installed on the machine. But, most users generally have several programs that they use often. Having an icon for these programs on the desktop makes it easier to access that program. Just double click on that icon, and the program opens.

#### WHY SHOULD I BOTHER?

Let's take an extreme analogy. How would you like to have a dictionary where the words were randomly listed, not in any order? It would take lots of time to look up a word. By organizing things, and getting important icons at your fingertips, you can make your life much easier. And, your friends will be asking you to help them, when they see your desktop. Consider the desktop as a presentation area for icons that you often use. Count the icons on your desktop that you really use, and those you don't use. Then list the icons that you use which are not readily available on the desktop and you have to do lots of clicking to reach. You will see why it's a good idea to improve things. Now let's get down to business and fix things up.

#### OPERATING ON ICONS

The following activities are easy to perform on icons, wherever they may be. There are a few icons that Microsoft does put in places where they take control away from you - you can't readily rename them, or move them off the desktop, although you can always reposition them on the desktop. You may discover some of these in your travels. When you do, you'll just have to skip those icons. While they can be operated on using special protocols, that's outside of the scope of activities for these lessons.

#### WHAT IS AN ICON

An icon is a representation of a program, or file, or just about anything you want. The icons on your desktop are usually shortcuts to running a program, be it a word processor, spreadsheet, Internet connection, etc. All icons have properties, which define the nature of the icon, and details of what it does when used. Right clicking on an icon will bring up a window with the bottom item in the list being "properties." Left click on "properties," and you'll get a window with lots of information about the icon. Try it, and browse around to get a feel for things. The more familiar you become with things on your computer, the more comfortable you'll feel using them.

#### MOVE AN ICON

Left click on and drag an icon and you can move it manually anywhere you want on your desktop, or into another open folder. The ability to drag an icon around is tied into the choice that was made on how icons are positioned. Before you can engage in changing locations et al on your desktop, you must first check to see how things are set. Right click on the desktop and in XP you will bring up a small box with a list of items in it. The contents of this box will vary, depending upon which version of Windows you are using. The top item is "arrange icons by," and it has a little arrowhead to the left. Click on that arrowhead, and you'll see a variety of items related to arranging icons. Some of these may be checked. The best way to learn what does what is to play around with the checking and unchecking. After a few trials, you will get a good feel for what they all do.

### COPY AN ICON

Copying an icon is similar to moving an icon. As with the standard Windows protocol, do exactly as you would to move, but hold down the CTRL key while you are doing the click and drag operation. If you copy it into the same area, you'll probably see a (2) following the text in the copy. You can't have two icons in the same place, with the same name. So, Windows adds the "(2)" for you. If you move it to another folder, the "(2)" will stay, but you can edit the text as you'd like. See "Rename an Icon" below. Dragging an icon to any folder on your desktop will move the icon into that folder.

### DELETE AN ICON

Click once on an icon to highlight it, and then hit the Delete key. Remember, the icons here are generally shortcut icons with the little curly arrow on the lower left corner. Deleting these does not delete anything from your system except the shortcut icon. No programs or data will be deleted, just the icon.

### RENAME AN ICON

Click once on an icon and then hit the F2 key. This puts you in "edit" mode, and you can type a new name by using the keyboard. If you type in a very long name, all the text you entered may not display when the icon is not selected. But, when you click once on the icon, the extra lines of text should be visible. In general, try to keep the text to a maximum of two lines under the icon. Remember the F2 key. It is the "edit" key for folder names, filenames, icons, and other elements in Windows.

Next month, we'll continue from this point to get a more streamlined desktop for you to work with. But, you must know the various icon manipulation procedures presented above. I won't be repeating the explanation for each step. I'll just say delete, copy, move, (etc.) the icon. So if you've forgotten how to do it, you'll need a copy of this article handy to remind you.

Remember, you will learn by experimenting and exploring - so don't be afraid to do so.

If you find this material useful, you may want to download this article in PDF format, from our web site [www.brcs.org](http://www.brcs.org). This allows readers to keep the material either as a PDF file, and/or print it out, and place it in a loose leaf notebook for future reference.



## Computer Performance Considerations

by Gary Bentley, [bentley.gary \(at\) gmail.com](mailto:bentley.gary@gmail.com)

Editor, SouthWest International Personal Computer Club (TX), *Throughput*, [www.swipcc.org](http://www.swipcc.org)

When I evaluate what might be done to maximize the performance of a computer system, whether that be a system already in use or one I might be specifying for order (i.e., specifying the hardware with a particular level of performance in mind for the intended application) I look at several key factors.

The most critical factor is how much system RAM is available (if you are ordering a new system then you can also order faster RAM and be cognizant of addressing issues). I will state flatly that, all factors being equal, the more RAM available, the faster your computer system will operate. In the same vein, if you want to make full use of that system RAM, get an external graphics card with its own RAM so you don't force your system to share RAM with the video display. If you are specifying a new computer, get the fastest FSB (front side bus) speed you can afford with the microprocessor and then match the RAM bus speed to take advantage of that high bus speed. Don't let a computer maker fool you with a low system price while handing off old slow RAM to you when the motherboard and processor would support faster bus speed RAM. New systems will always use DDR RAM, so that should not be a consideration (and older systems will not be able to use it). Don't be confused by discussions of virtual memory and page files. If you have a large amount of RAM (1 GB or more with Windows XP—3 or 4 GB with Vista, the OS memory hog of all time), your system will rarely need to page out process memory onto the hard drive paging file. You can check that in Task Manager (hit CTRL SHIFT ESC or CTRL ALT DEL or right click the Task Bar and select Task Manager) by looking at the Performance tab and the Physical Memory Total in conjunction with the Commit Charge. The Physical Memory Total is the amount of RAM you have in your system. The Commit Charge is the

total memory allocated to programs and the operating system. If the Commit Charge (Total or Peak) doesn't exceed the amount of RAM, then the hard drive pagefile is rarely if ever being used and your system should be running at full RAM speed without hard drive performance issues (except when loading the OS and starting an application, etc.). You can also use Performance Monitor (Start, Administrative Tools, Performance) and look at the Memory, Pages Output/Sec parameter. Even if the amount of committed memory exceeds available RAM, if the actual Pages Output/ Sec is low or zero most of the time (quoting Microsoft) there is no significant performance problem related to available RAM. I doubt there would be any reason for the typical home user to require a 64 bit computer in order to utilize sufficient RAM.

The second most critical factor is the performance of the hard drive, i.e., the amount of utilization of your hard drive (present or anticipated for the application), the speed at which the drive platters rotate, and the speed of the interface to your hard drive. You never want to reach 50% of capacity of your hard drive. The more data you have on a hard drive the farther the disk drive read/write head has to move inward on the spinning platter to get to the data (on the average). This increases the seek time, the time required for the read/write head to position itself over the desired concentric data track on the spinning disk platter. So, use a hard drive with sufficient storage that you do not exceed 40% or so of the storage capacity (high performance server hard drives often are destoked or short stroked, i.e., limited to 40% or less so as to keep the data on the outer edge of the platters where it can be quickly reached). Once the read/write head reaches a track then the rotational speed of the platter comes into play, introducing latency, the time required for the desired sector of the track to rotate into position beneath the head. How do you reduce latency? Get a hard drive that spins as fast as you can afford. Most desktop hard drives now spin at 7200 RPM (don't let them slip you a 5400 RPM drive on your desktop or your laptop!). If your drive has a slower RPM, you can increase performance by purchasing a 7200 RPM drive. Note that high performance server drives spin at 10,000 and 15,000 RPM, but those drives are expensive. If you are evaluating a replacement drive (or specifying the hard drive in a new system), look at the access time parameter for the drive. This will generally be around 11 milliseconds for 7200 RPM desktop PC ATA/SATA drives. The access time will include seek time and rotational latency. As for the type of interface, ATA drives (which peaked at around 133 MB/sec interface performance, setting aside internal data rate of around 60 MB/s and PCI bus rate considerations) are no longer offered, so you will see SATA (serial ATA) drives in a new computer. I wouldn't bother attempting to replace an ATA drive in an old PC with a SATA drive. You would need a SATA controller card as well as SATA drive and you might as well just purchase a new computer. The current SATA interface rate is 3 Gbps (the initial SATA interface was 1.5 Gbps), i.e., 3 gigabits per second. That translates to approximately 300 MB/sec. However, the actual rate that the read head can read the data off the spinning platter of the drive is closer to 100 MB/sec (the internal data rate). You therefore can benefit by having a drive with a large cache memory, where a large amount of data has been read internally by the hard drive before the interface is accessed, at which time the interface can burst perform at the full interface speed of 3 Gbps/300 MB/sec. I note that even the expensive server grade SCSI and SAS drives have about that same external interface transfer rate, i.e., 300 – 320 MB/sec, so their increased performance is coming directly from the high rotational speeds (10 – 15 K) and fast seeks, giving access times of 3 – 5 ms vs. 11 ms or so for desktop SATA drives. Defragmenting your drive regularly will help keep the drive operating at peak efficiency.

A less critical factor is the speed of the microprocessor itself (FSB considerations aside as they relate to RAM access speed). A faster microprocessor or a dual or quad core processor will allow applications, their processes and threads to execute faster (to actually run the microprocessor instructions of which a program is composed) once the instructions and data reach the microprocessor.

So, if you have processing intensive applications like video or music (studio) production and editing (or scientific number crunching), faster and more core processors will speed things up considerably, but only if you have plenty of RAM and a high performance hard drive.

*Mr. Bentley studied electrical engineering at the University of Texas, began working in the electronics industry in 1978 with GTE Network Systems (Lenkurt), then software engineering with various startups in the 1980's, designing and implementing, among other things, pre-Internet email communications systems multitasking on Intel platforms and MSDOS PC's. 1984 - 1986. Gary now provides Information Technology consulting services in the El Paso, Texas and Las Cruces, New Mexico areas. Gary has edited and contributed articles to the award-winning Southwest International Personal Computer Club monthly magazine, "Throughput", since December, 2003.*



# Fun & Games with Ubuntu

by *Brian K. Lewis, Ph.D.*, [bwsail at yahoo.com](mailto:bwsail@yahoo.com)

Regular Columnist and member of the Sarasota PCUG, Florida, [www.spcug.org](http://www.spcug.org)

As I said in my last article in the Monitor, this one would be about my experience getting Ubuntu up and running on my new Asus laptop. I had been running version 8.04 (Hardy Heron) on my old laptop. Since it seemed to be quite successful I decided to use it for the initial install on my new computer. Perhaps I should point out that Canonical, producers of Ubuntu, turn out a new version of their OS every six months! Compare that with Microsoft and its multi-year production cycle. Hardy Heron is a long-term support version with guaranteed support until April 2011. That's three years from its original release date. In the meantime, version 8.10 (Intrepid Ibex) was released in October 2008 and will be supported for two years. However, the latest version is 9.04 (Jaunty Jackalope) which was released on April 23, 2009. Since I was starting my installation the end of March, I decided that installing Hardy Heron should be fine. A bad guess, as it turned out.

The process of installing any Ubuntu version is very similar to installing Windows. The exception being when you want it to share the hard drive as a dual boot system with Windows. Then a few extra steps are needed. The first step is to download Ubuntu. This will be an ISO image file. That is a compressed file in the format specified by the International Organization of Standardization. It is almost 700 megabytes in size, so it's best to have a broadband connection for your download. (If you don't have a broadband connection, you can request a free CD from Canonical and have it mailed to you.) Once the file is on your hard drive it has to be decompressed and the image burned to a CD. Most commercial software can burn the ISO file image to a CD. I used CDBurnerXP, a free Windows program, to burn the image to the CD. That gave me a bootable CD that either runs Ubuntu from the CD or it can install the OS to a hard drive as a dual boot with Windows/Vista or it can take over an entire drive. If you have two hard drives in your computer you could have Ubuntu take over the second drive and dual boot with Windows. There is also an option to install it as Windows software allowing you to run it within Windows or Vista. I haven't tried this option. It just seems to me that running Ubuntu under Windows you would lose many of the benefits of Ubuntu, especially its stability.

The hard drive on my laptop was already partitioned into C and D drives and formatted with NTFS. (That's the file system XP and Vista use.) My intention was to install Ubuntu on the second partition as a dual boot system. As I found out, if your hard drive is not already partitioned, don't change it. Let the Ubuntu installation do it for you. That is much easier. I ended up doing a more manual preparation of the hard drive which requires a better understanding of how Linux systems need to be set up. You can find the info on the Ubuntu site, but why make things any harder than you have to! Once the drive was set, Ubuntu spent some time installing all the files needed for my hardware and the additional software. If you are interested in the details of installing Ubuntu, check out this web site: <https://help.ubuntu.com/community/GraphicalInstall>. They have a detailed graphical presentation (screen shots) of the steps involved.

During the installation Ubuntu asks for a user name and a password. I used my initials and a fairly secure password. I recommend that you do not shirk this password setup. It will help to protect your computer from problems caused by outside entry of worms or trojans through the Internet connection. The password has to be entered for software installation or any other administrative function. So using a strong password is advisable.

Now I was ready to do my part of the setup. I had to program my new USB modem so I could connect to the Internet. That requires some knowledge of the command line functions in Terminal. I had done this on my previous computer but some of the information for the new modem was different, so I had to find that first. It took a little hunting, but everything worked once I had the commands right. The other thing I had noticed was that the sound didn't seem to be working and the video resolution was not right. So I investigated both of these through the Ubuntu forums. That turned out to be far more difficult than I imagined it would be. My laptop has an NVidia graphics card. It turned out Hardy Heron did not have the drivers for my card, it was too new. The drivers available on the NVidia web site also didn't seem to help. My sound card was part of the Intel chip and the drivers just didn't seem to want to work with it no matter what I did. Then I also found that Hardy Heron didn't recognize my eSATA port. After doing more research in the Ubuntu Community forum, it seemed like I needed to try the Intrepid Ibex upgrade or maybe I would have to wait for Jaunty Jackalope to solve my problems.

So, next I downloaded the ISO file for Intrepid Ibex and burned it to a CD. That gave me a bootable CD that I could use to test how well this version would work with my laptop. When I booted from the CD, although it took some time to load, the video setup was perfect. It recognized my NVidia card and gave me the 1200x800 resolution that I had with Vista. It also had the expected 3D effects and other graphics features that my card supports. Next I tried the sound and had no problem playing some WAV files I had stored in the Linux partition. Better and better. With previous live CDs I had never been able to connect to the Internet with my old wireless modem. But I clicked on the wireless icon on the top bar of the window and it gave me a list of several local wireless networks and it also had a choice of a wireless broadband connection. So I tried the broadband connection and within seconds I was connected through my Verizon wireless modem to the Internet. This live CD also recognized my printer, but didn't have the drivers to print to it. However, everything was working much better with Intrepid Ibex than it had with Hardy Heron. So, I decided my next step was to upgrade to Intrepid Ibex.

If I had done an install from the live CD, it would have wiped out many of my files that had been created using Hardy Heron. It wouldn't affect my documents as they were backed up to my external drive. However, there were other files that I had created to help with hardware compatibility and additional software I had downloaded that would have disappeared. So I went back to the Ubuntu site to find out how to upgrade, rather than install Intrepid Ibex from the CD. It turned out to be much easier than I had anticipated. In the System-Administration menu there is a selection for "Software Sources". This contains the information on locations where the Synaptic Package Manager will find additional software. On the Update tab you will find the options for operating system updates. Mine had been set for "long term support" updates only. I changed that to "standard updates", clicked OK and exited the window. The package manager told me that there was an update available, version 8.10, and it could be downloaded. It also gave me an estimate of the amount of time it would take with my connection. The estimate was two hours, but it ended up taking 30 minutes less. Once the download was complete, the upgrade installation started. About an hour later, the screen announced that the system needed to be rebooted. Since I still have the live CD for Intrepid Ibex, I automatically have a backup CD, should problems occur down the road.

After the upgrade, the first thing I noticed was that the dual-boot menu reflected the new version of Ubuntu. Next, it took far less time for the user name/password request to show up. Then, very quickly, on the desktop there was the Intrepid Ibex. I will be replacing the Ibex graphic with my own wallpaper, another very easy task. But, I had noted there was no sound. So I clicked on the sound icon and found that the sound had been muted! Once I corrected that, it worked perfectly. First problem solved! Then I clicked on the wireless icon and there was the broadband choice. I selected it and within seconds I was on the Internet. Second problem solved. However, the screen resolution didn't seem right. With some hunting I found an NVIDIA X Server settings on the System – Administration menu. That allowed me to change the resolution to 1200x800. Third problem solved.

Next, I realized I hadn't tried to use the eSATA port when I was running the live CD, so now was the time to try that out. I plugged in my external drive and all three partitions appeared in the Places menu. I clicked on the main partition and all the files come up in the file manager (nautilus) window. So, everything that I had problems with under Hardy Heron seemed to be working with Intrepid Ibex. And, the improvement came without having to do anything with the Ubuntu command line. In my mind, that makes Ubuntu much more ready for the average user. With an easy install, either single or dual boot, a great selection of software that is easily available through a graphics interface, it is becoming something that anyone can try and, probably, enjoy using. As for crashes, in more than 10 years of using various flavors of Linux, I have yet to have one crash. I certainly can't say that for Windows over the same period of time.

My next step will be to download a live CD of the latest version, Jaunty Jackalope, after the initial surge of business slows down. I really don't want to be trying to download almost 700 MB of data at a time when thousands of other Ubuntu enthusiasts are trying to do the same thing. By trying out the live CD version I can be sure that it will work with my hardware before doing an upgrade. I have already seen the problems that occur when you have to remove a newer version and revert back to a previous version. That is something I really don't want to do again. Windows has similar problems as those who replaced Vista with XP found out. I am also considering downloading the 64 bit version of Ubuntu. I am very curious as to how it would work with my hardware. You may be sure I will share the results with you.

So for all of you Windows/Vista users who are curious about Ubuntu, the easiest way to test it on your hardware is to download a live CD. From the home page, [www.ubuntu.com](http://www.ubuntu.com), you can download either the latest version, or an earlier version. I would recommend that you not go back any further than version 8.10, Intrepid Ibex. You really should give it a try and download the CD, especially if you have a broadband connection. You'll also find the Ubuntu has a large selection of games that come with the installation. So, have some fun and games with Ubuntu!

Dr. Lewis is a former university and medical school professor of physiology. He has been working with personal computers for over thirty years, developing software and assembling systems. He can be reached at [bwsail@yahoo.com](mailto:bwsail@yahoo.com).

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*All unattributed articles are solely the fault of the editor.*

*This and previous Princeton PC User Group Newsletters can be found at:*

<http://www.ppcug-nj.org/newsltr.html>

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