

TOGGLE

THE MICROCOMPUTER TURN (ON)

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UPDATE

Communications

In *Will You Be Texting Your Doctor Soon?* Sandy Berger discusses whether or not texting is secure enough for personal health data.

In *How Secure is the Cloud?* the author questions some of the current wisdom and the safety and security of the Cloud and suggests an alternative to transferring personal and private data this way.

Word Processing

In *Converting Documents to PDF* the author discusses the program PrimoPDF which will convert any file to PDF format.

Operating System

In *Organizing and Backing Up* the author says: "Only you can determine how important your files are, but start rethinking what you save in the first place. The second problem is what happens if you lost this file. Here are some things to consider." She then goes on at some length with advice.

In *File Recovery Strategies* the author discusses several different scenarios where your hard drive may show signs of failure or at worst actually fail. He discusses several cases and strategies.

Hardware

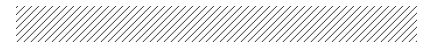
In *Who's Driving this Bus Anyway?* the author asks "When is the last time you worried about having the latest

drivers for your computer?" He then after some discussion gives you a site where you can check and even download some drivers.

In *Where's The Technology?* the author discusses some disappointments with promising technology that as yet has not been developed and on the market. He does discuss new technological advances that are here today.

In *Performance, Capacity, Ports... Tablet Discriminators* the author tells you things you consider when buying a new computer.

In *What You Can Do If Your Mobile Phone Gets Wet?* the author of his experiences when he dropped his phone into water. Worth thinking about and being prepared.



NOTICE! Low Attendance May Require Action

Attendance has been dropping in the past few months. If it does not improve in the next few months we may have to consider suspending monthly meetings and releasing the meeting room to someone else.



COMMUNICATIONS NOTES & TIPS

Will You Be Texting Your Doctor Soon?

Sandy Berger, CompuKISS
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Texting has become very popular. We've all seen teenagers' texting each other across the dinner table or from the front seat of the car to the back seat. You may be surprised, however, to find that older people are also texting and now even some doctors are using texting to communicate with their patients.

Because texting is so popular with the younger crowd, many older folks have started texting just to keep in contact with their children. Over and over again, I have heard the lament, "They (the kids) just don't answer the phone. The only way I can get them to respond is to text them."

Yet, when these people start texting, they find it just as useful for everyone they communicate with. Texts are less intrusive than phone calls. You don't feel forced to run and answer the phone, you can deal with a text whenever you like. With a text, you don't disturb a person who happens to be sleeping because he is in a different time zone. And you don't disturb him during an important meeting, but you still get your message across. Two other advantages are that texting is faster than phoning and text messages are archived on your cell phone so you can search for previous conversations.

The newer cell phones make texting easy. With on-screen keyboards and predictive text, you can tap out a message quickly and easily. If you don't like to type, you can speak your message and have the phone type it out for you will pretty good results.

Although some predicted that texting would die out with the proliferation of smartphones, that doesn't seem to have happened. Texting does not use data, so it is often cheaper than using email on a cell phone. Also, several large cellular providers now offer free texting with their share plans, making it a very cost-effective method of communications.

Kids are still texting, and older people are also texting. In fact, in the future, you may even text with your doctor. If you think about it, texting is a quite suitable way to communicate with a doctor.

My conversations with several doctors indicate that they are happy to embrace texting patients but there are several hurdles to overcome before texting between physicians and patients can become routine.

Dr. Adam Schaffner, a New York City plastic surgeon, who specialized in aesthetic plastic surgery of the face, breast and

body has been texting to communicate with his patients for several years. He says that "texting promotes comfort for the patient." In his practice, post-operative patients who used texting to communicate with him fared better than others. He says, "This type of access (texting) empowers patients and is of great benefit during the immediate post-operative period." He also finds texting a great way to start a necessary conversation with patients and found that patients who texted him had a reduced number of office visits. This, in effect, could reduce the cost of health care.

Although Dr. Schaffner finds texting "extremely beneficial", he sees several hurdles to this type of texting becoming commonplace in the medical industry. The first is that the time spent texting is currently not billable or covered by insurance. So doctors who are currently taking advantage of the benefits of texting are doctors in fields like plastic surgery and concierge medicine whose main patient base is not covered by insurance.

Second is the investment of capital needed to implement secure texting platforms to comply with HIPAA laws brought on by the Health Insurance Portability and Accountability Act. Because of this individual doctors and even most medical clinics are still not embracing texting. Besides offices like Dr. Schaffner's, you will only find doctor-patient texting in large University hospitals that have more technology funding available.

There is little doubt that many of us will be tapping out texts for years to come. Perhaps we will be texting to improve our health as well as to improve communications.



How Secure is the Cloud?

from Dear Digital Dave,
ComputerEdge, 1 February, 2013
UCHUG newsletter

How secure is the Cloud? We don't know if our information would be exposed to all. We are thinking of putting all of our information into the Cloud" until we can re-do our computer, etc. The Cloud (Internet Services for storage and apps) has certainly become popular in the last few years. It seems that almost everyone is offering some type Cloud storage capability whether it's Apple iCloud, Microsoft Skydrive, Google Drive, Amazon's Cloud Drive, Dropbox, or many others. The battle is on and almost all the services offer some level of free Internet storage. There are a few concerns with Cloud storage. Yours is security.

Since Cloud storage is over the Internet - which everyone accesses - security is a natural concern. There have been a few notable breakdowns that make many people wary of trusting Cloud services. However, those failures made all the players up their game and improve protection against hackers and nefarious or negligent employees. Most of the well-known

services are reliable and safe - at least for the current known threats. Having said that, I would hesitate to trust my most confidential data to any Internet service. No Internet computer system is 100% protected or foolproof.

Another issue is the slowness of the Internet - even at high speeds. If you have a substantial amount of data on your computer, it could take an unreasonably long time to upload and download your data when changing computers.

Next is the cost of Cloud storage. Most services offer some free storage (five gigs is the average), after that you will encounter a monthly fee. Unless you're only using it for a short period of time, those fees will pile up. I don't know about you, but five gigs don't scratch the surface of the amount of data I have on my computers. Photos and videos add up quickly.

My recommendation for transferring data to a new computer is a USB Hard Drive. For about \$90 you can pick up a one terabyte drive which will both backup your current computer system and act as a data transfer drive when using a program such as Windows Easy Transfer. In the long run an external hard drive will save you money and protect your data from Cloud exposure.

WORD PROCESSING NOTES & TIPS

Converting Documents to PDF

By Wayne Comstock, Member, South Walton Computer & Technology Club (SWCTC), Florida June 2013
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One technique I frequently use to save an online article or publication is to convert and save it as a PDF file. Once converted, Adobe Reader software then becomes an excellent way to open, view and read any converted document off of your computer screen. PDF documents can also be easily emailed to others as an attachment.

You can convert to PDF from any file you can print, including Microsoft Word, Works, Excel, PowerPoint and digital pictures. Rather than being printed ink to paper the file becomes a PDF file. If the document is already a paged PDF file you can convert the file to just the pages you select and select your PrimoPDF printer to convert.

You will need PDF conversion software to accomplish this. I recommend the Free PrimoPDF program. It's free, easily installed and available at: www.primopdf.com/index.aspx

Browse Primo web site and download one of the two installers available for 32 and 64-bit versions of Windows. Ensure that the version you download corresponds to your operating-system.

When prompted, select a download location which you can find easily, such as your 'Desktop' or 'My Documents' folder, and click OK.

When the download is complete, double-click the file named FreewarePrimoPDFXX.exe (XX being a 2-digit number) which would have appeared in the location you selected in the previous step.

Follow the simple instructions to complete the installation. A system-restart is NOT required.

PrimoPDF installs itself as a virtual printer in the Windows Printers and Faxes device group. This allows any software with print functionality to output files to PrimoPDF for quick and easy PDF conversion.

OPERATING SYSTEM NOTES & TIPS

Organizing and Backing Up

By Diane Fahlbusch, President,
 ICON PC U G, Feb 2013, The ICONPCUG Graphic
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We all have LOTS of files saved to our computers as well as on other hardware, such as MP3 players, camera cards, thumb drives and CDs/DVDs, and the cloud. The problem with having lots of hard drive space and cheap mass media storage is that, well, we use them a LOT, and often store way too much. The first problem is finding the files you want quickly when you want them amidst all that you have. Think about this:

Why did I create and save this file?

Wow! I have this?! I was just playing. It had a purpose once upon a time. It has nifty information. It saves me from looking it up again. It's a wonderful trip down memory lane. I really wanted it! I use it frequently. I need it for work. It's precious to ME. It's precious to me AND others. It's important stuff. I need it for work or a specific project. It's legally required.

Only you can determine how important your files are, but start rethinking what you save in the first place.

The second problem is what happens if you lost this file. Here are some things to consider:

What will your reaction be?

None because you forgot it was there. Say "So what". Pout for a few minutes. Cry for a few hours. Lose a night's sleep. Have a panic attack until I figure out how to rectify it. Curl up in a fetal position for numerous days. Take a sudden trip to the ICU ward of your local hospital.

What would I do if I lost it?

Not even realize it's gone. Say "Oops" and forget about it.

Recreate it easily. Spend a lot of time recreating it. Spend more money to get another copy. Be unable to recreate it. Lose your job or spouse. Be in potential legal trouble.

If you are the beginning point in the scale, you REALLY need to clean out files. If you are on the later end of the scale, you REALLY need a Backup plan. But do you just want to duplicate that big messy “pile”? So it’s time for:

ORGANIZATION

Files are useless if you can’t find them when you need them. You first must get in the habit of using meaningful names for your files, and try to keep them short. Advanced search options do allow you to search for a word or phrase in the document and on your entire hard drive. But that can be time consuming. The programs we use want to save files where the programmers decided to set up as the default location. YOU need to take control of this by remembering to select the “Save” location or you are at their mercy. (Of course, it helps if you had initially set up some organization prior to doing this. However, you can still do it after the fact.)

It’s up to you how you want to organize your folders and files. One of the best ways to think about how to organize them is by considering how you would do it if they were all paper documents. Most people would get a filing cabinet and use some kind of system, such as tax returns in one section, legal certificates in another but fairly close, other legal documents, banking, etc. Well, do that with your electronic files. Create folders and subfolders. If you use specific programs for your banking, you can create shortcuts to the programs within the folders. You may need to add even more layers, but don’t be excessive. If you maintain important documents such as tax records, I would suggest that you create folders for these that are separate from the remainder of your documents, or not even store them on your computer at all.

Most of your document files wind up in the “My Documents” folder on your Windows machine. Most programs will separate out your photos, music and videos into the “My” files of coordinating names, or in a subfolder within the specific program’s folders. The problem is that hackers and phishers know where to look for these files. You should get into the habit of creating your own folders, just as you did when everything was kept in file boxes or filing cabinets. Keep sensitive information encrypted and in folders OUTSIDE of the “My Documents folder”.

Once you have created your filing system, it’s time for the work of going through your files to make sure they still open otherwise, why save it? Next, ascertain whether you still want or need them. One question you can ask yourself is, “Did I actually remember that I had this?” If the answer is “No”, then you might want to get rid of it. (That’s the problem with LOTS of hard drive space we don’t get rid of anything.) Another option is to consolidate related information onto one file. (I know I started numerous documents with tips about a specific program, which I eventually just put into one docu-

ment.) Depending upon how many you have, I suggest that you attack it a little at a time. You may find that you need to create more folders to accommodate the information you have accumulated.

While you are moving and checking your files, you might want to consider adding some “mouse over” information. RIGHT click the file, and then click on “Properties”. You can add comments, keywords, etc. Unfortunately, most of us do not do this. This can be-come very handy if you need to have the same file in multiple locations. Now you can note how many copies there are and where they are. Photos often require you to put this information in your metadata. There are programs that can help you do this, but most of the time the metadata is editable through your camera’s software. There are often batch renaming options included with this software, as well as other programs. Don’t forget to add notations about the people and places in those photos, especially if you want to share them with future generations. Now you understand what programmers mean by “document, document, document”!

Additionally or as an alternative, you could use Microsoft’s One Note to create electronic loose leaf binders of information that can help pull information together. Or you could create links to your folders and use the program Fences to keep them grouped and hidden until you want them. Or you could actually create a database that can contain even more information and hyperlinks to your documents so they are but a click away. Use what works for YOU. But it still makes sense to create order and KEEP IT THAT WAY.

So you have slogged through all of your files scattered throughout the universe, created order from chaos, and provided possible cross-references and information. Great! But what happens if that drive dies? That’s why you need a:

BACKUPPLAN

The first step is making sure you have a physical medium to back up to. CDs and DVDs are quick and cheap, and there are lots of free burning programs, but they are usually not recommended, even by their manu-facturers, for long term archiving of data. Thumb drives are a better option, but are also known to go bad, and do have a limited number of times they can be rewritten. (Granted, it’s a huge number, so you may want to keep a drive just for backups.) Hard drives provide the greatest longevity, and the old fashioned magnetic discs are recommended for the long haul. Of course, they can lose the data if they cross paths with a magnet. That’s why you should have at least two sets. Yep, the ol’ du-plicate backup motif.

However, the aftermath of Super-storm Sandy, and her kin in other areas, proves that even if you backed up to multiple drives, they would all be lost if they are saved in the same building. Back up physically to multiple sources, and at least one site away from where your main stockpile of data is stored. This includes the cloud, or another hard drive in a safe deposit

box. Why a safe deposit box? Because of the way banks are built, they will survive most natural disasters. Also consider keeping your backup drives in a refrigerator. If you can get your hands on one of those small ones that college kids use, even if it is not running. We don't want to keep the drives chilled; we just want to protect them from fire. (The insulation in your refrigerator, but especially the freezer, is so thick that items such as these would survive a fire that destroys the entire house.) You could use one of those locking fire proof boxes, except that most thieves just grab the whole box but not the ice-box.

Now it's time to back up. You can just simply copy files, especially those important, costly or irreplaceable ones, to another drive. But please remember that certain files may only be opened with a specific program. Look into alternative programs that might be able to import the file. (The open source Open Office and Libre Office both have a word processing program that will open most forms of MS Word documents. You may lose some formatting, but the text will be there.) Consider saving files with formats that can be opened by other programs without imports or conversions (.odt, .pdf or .txt). Of course, regular backups are a must.

Another alternative, especially if you have a lot of files that you want to save and are always editing them or adding new ones, but forget to back up our files is to build yourself a NAS (Network Attached Storage device). Yes, you can buy them but you can also take an old computer and build one with the cross platform open source Free NAS. Your data will be backed up as you are working on it. This will also back up your entire system if you want it to.

Another choice is to use software specifically designed to use backups. Yes, all of the Windows operating systems from at least '98 had this. The problem is that you need to restore your backups with the same operating system. So if you backed up files in the Windows XP backup THAT is the OS you will need to be using to restore them.

Of course you can always look for third party software to backup your files and your system. Most offer the option for automatic backups. Some allow you to schedule specific times, but look for those that will do automatic backups at startup and shut down, especially if your computer is on at irregular intervals. Many of these are transferrable from one operating system to another, but make sure you check. Some come with bootable discs, so you can fully restore your system, programs and files to a new hard drive if your original one died. But still consider utilizing cloud storage as an additional backup, especially since many offer some free storage space.

Finally, remember to CHECK YOUR BACKUPS to make sure that they are working properly.

File Recovery Strategies

By Dick Maybach, May 2012, BUG Bytes,
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Using home computers affords many opportunities for errors and malfunctions. You probably have experienced at least one of these mishaps.

- Shortly after emptying the recycle bin, you realize it contained a file you should have restored.
- A CD, CD-ROM, or DVD is scratched and unplayable or unreadable.
- You formatted the memory card for your digital camera with vacation pictures you hadn't yet moved to your PC.
- Your computer won't boot, and you haven't backed up all your files.
- Your hard disk is beginning to report errors, and again it isn't backed up.
- You had a fire, a flood, or a power surge, and your hard disk is dead.

Surprisingly, you can probably recover some and perhaps most of your data in each of these cases, as you will see in this article and the two that follow it: Windows graphical tools, and command-line tools. As will become apparent, by far the best approach is prevention in the form of a good backup regimen, and if you haven't already, reading this series may inspire you to begin one.

Regardless of what happened, the first step is usually the same - turn off the equipment that contains the damaged medium. Don't power it up again until you have collected any equipment and software you need and have developed a good plan. If the plan involves using unfamiliar software, practice the procedures on a test medium until you are comfortable with them.

It's most important that you not write anything to the device from which you hope to recover the files. This implies several things.

- If the device is your system disk (C: for Windows users), you must not install any software before you have recovered the files. Ideally, you shouldn't even reboot from it.
- To recover files from your system disk you must remove the disk and mount it in a different PC (unless you have recovery software installed) or use a Linux live CD.

When you recover files from a device, you must rewrite them to a different device.

The general approach depends on the nature of the problem.

- *Complete device failure or physical damage from fire, water, electrical surge, or physical shock* - You can't do

anything and neither can your local shop; instead, you must send the device to a specialist. Expect the fees to start at above \$1000, and they could be much higher. Reputable firms don't guarantee success, but many charge you only for what they are able to recover.

- *Problems resulting from a gradually failing system disk* - You must either move the drive to a new computer or boot from a live CD (which doesn't use the internal hard drive). Regardless of your approach, your first task is to move all the data from the failing device to a good one. The preferable way to do this is with a program such as gddrescue (discussed in part 3), which is designed to recover as much as possible from a corrupt filesystem.

- *Problems resulting from a gradually failing storage device that is not a system disk* - Since your system disk is fine, you can use your computer to salvage the data. Again, the first step is to move all the data to a good device.

- *A computer that won't boot* - Most likely, your data isn't affected, but you should move all your files to an external device before you try to repair the operating system.

- *Problems resulting from malware or a software malfunction* - If this occurs on a system disk, you must not boot from it, as this would allow the problem software to continue its mischief. Thus, you must use either a live CD or attach the disk to a clean computer. Once you do this, there will be no new damage, which means you can recover files at your leisure.

- *Problems resulting from user errors* - If these occur on a system disk, you should not boot from it until you have recovered the data. This is because each boot causes files to be written, which could overwrite what you are trying to recover. The best time to recover that data is immediately after you delete it, providing you had already installed the recovery software you need. Thus, this case is an exception to the rule that your first step should be to shut down your computer.

Your first decision is whether to attempt the recovery yourself or pay a shop to do it. If the data is very valuable or belongs to a business, strongly consider having a competent professional do the work. Also consider a professional if the medium is failing; here, you have little time, as data losses will continue. Ask what approach they will use, and if their strategy is different than what I discuss here, they should be able to justify it.

You must next decide whether you will use a tool in your native operating system or a Linux (probably command-line)



tool. A strong advantage of working in your native environment is that it reduces the likelihood of serious errors. However, to recover files from a Mac or Microsoft system disk, you will have to remove it and connect it to a separate, healthy computer that has the appropriate recovery software.

Rather than opening the healthy computer's system case to install the hard disk in it, consider buying a IDE to USB, a SATA to USB, or a laptop disk to USB adapter (depending on the drive you're working on). (Of course, this isn't necessary if the problem is on a removable medium, such as a memory stick or CDROM.) An alternative is to use a Linux live-CD, which runs from a CD-ROM or memory stick without accessing the hard disk at all, except to recover files from it. As a result, you don't have to move the hard disk to another PC. Even die-hard Windows users should consider acquiring and experimenting with a Linux-based maintenance disk, such as Parted Magic, to be ready in case of difficulty. (See my article in the April BCUG Bytes, available at <http://www.bcug.com>)

Next month we'll look at recovery tools that run under Windows. (I'm not able to test Mac procedures, but a Web search will find graphical recovery tools for the Mac.) The following month, we'll look at Linux command-line tools, two of which also run on both Mac and Microsoft operating systems. To decide between graphical and command-line tools, consider the following.

Graphical tool pros:

- familiar environment and intuitive procedures. (You probably don't need a manual.)

Graphical tool cons:

- need to remove the system disk from the PC,
- need a second PC and probably an adapter to work on the system disk, and you can work only on native file systems (FAT and NTFS for Windows).

Command-line tool pros:

- handles a greater range of problems and if used with a live-CD, allows working on a system disk in place and on many different filesystems.

Command-line tool cons:

- user needs more expertise and if used with a Linux live-CD, the environment is probably unfamiliar.

From this I recommend that if you are familiar only with Windows or the Mac and are recovering files from a removable medium, use graphical tools that are native to your operating system. However, in part three, we'll look at two command-line tools (TestDisk and PhotoRec) that run on both Windows and the Mac as well as on Linux, and both are almost as easy to use as the graphical tools. If you have a system disk problem, use a Linux live-CD (such as Parted Magic), mount the disk in a second PC that has the proper recovery tools, or take the PC with the problem disk to a good shop. Of course, by far the best approach is to use an effective backup program, which lets you avoid this whole mess.

HARDWARE NOTES & TIPS

Who's Driving this Bus Anyway?

By Dave Helmer, Computer Users' Group of Greeley, CO
 March 2013 issue, Random Access
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When is the last time you worried about having the latest drivers for your computer? Ever? Never? Yeah, me too. Most people just don't give it any thought beyond the initial install of a new piece of hardware, but manufacturers tend to release new drivers all the time. Even your motherboard manufacturer sometimes releases updates. Mouse drivers, NIC drivers, USB bus drivers (there's probably a joke there somewhere, but it escapes me), hardware that no one ever thinks of in their computers, that may not be running the most current drivers. And really, why should you care? Mostly because those little outdated drivers might be the cause of some significant computer problems.

For the most part, I'm a firm believer in the old "if it isn't broke, don't fix it" approach to system maintenance, but on more than one occasion, one or another of my systems will BSOD* for no apparent reason. Microsoft's pathetic approach to a diagnostic simply tells you that the problem may have been caused by an out-dated driver. Well, duh ... Which one? Yeah, yeah, I know that BSOD's don't exist in the newer operating systems. But when a computer does a hard reset while you're in the middle of an hours-long project, does it really matter what you call it? *Blue Screen of Death

Keeping those drivers current is a nightmare, because no one really keeps track of the manufacturers and driver release numbers for everything in every computer they own. No one. Well, no one I know, or would want to know I suspect. I am usually doing good to keep my video and sound card drivers current, and yes, I do use discrete hardware plugins on my desktop systems. Motherboard sound and video is just not good enough for some of the things I use my computers for, although it is getting better all the time.

The good news is that there is a solution to this problem! Why else would I be writing this article? Actually, there have been a number of solutions to this problem over the last decade or so, but I have found none as user-friendly as a little freeware program called SlimDrivers, available at www.slimwareutilities.com. A recent article in MaximumPC magazine introduced me to this cloud-based utility for keeping drivers current, and it blew me away when I tried it.

Download the installer from the website listed above. Note that there are two other free utilities they offer as well, one of which, SlimCleaner, I am currently playing around with. Run the installer and when it's fully loaded, hit the big button labeled Start Scan. It's just about that easy. (Do be careful when accepting the install, as they will try to install AVG

Security Toolbar into your browser, not a bad thing, but if you're not into AVG you might not want to have it auto-installed.) SlimDrivers then goes out and uses "Crowd-sourcing to spider and aggregate millions of devices" to find drivers. In English, that means it checks the hardware driver versions on your computer, matches them against the latest versions available online from the manufacturer, and presents you with a list of drivers for which updates are available. For those concerned, SlimWare Utilities is a Microsoft Gold Certified Partner, which means it should play very well with Windows. I've successfully used it on systems running Win8, Win7, Vista and WinXP, and was very satisfied with its ability to locate updated drivers on all 4 platforms. You are given the option to set Restore points before any new drivers are installed, and you can uninstall or restore drivers from within the program.

At this point, the shine wears off a little bit, because you can only select one driver at a time to update. The drivers seem to download very slowly, and to be honest I end up wondering if SlimDrivers is choking my download speed as a way of enticing me to upgrade to their paid version (DriverUpdate, \$29.97/one year license), or if I am just being paranoid. And seriously, for freeware? I can take the wait. I haven't been able to discover whether or not that one license would cover all my systems, or if I need a separate license for each computer. Guess which one I would pay for... After each update, you are advised to restart your computer, and although you probably don't really "have" to do so each time, I certainly recommend it. This of course adds to the frustration of time being consumed.

Has it prevented any more BSOD's on my systems? Too early to tell, but I feel a lot more comfortable knowing that I am running the latest versions of hardware drivers on my computers. This program delivers, with a clean, easy-to-use (and understand!) interface. Learn more about it by visiting their website, www.slimwareutilities.com, and give it a shot.

Where's The Technology?

by Greg Skalka, Under the Computer Hood UG,
 Drive Light, www.ichug.org

With all the political posturing going on this past election year, we should be used to promises that go unfulfilled. In the technical arena, we hear a lot about potential new advances; though often wait a long time to see the benefits ourselves. Sometimes the prognosticators are wildly optimistic or the development proves too difficult, and we never see (or at least haven't seen up to this point) the mass application of a great new product or technology (an example is the Segway personal transporter). I've bought a number of new computers recently, and have been a little surprised about some of the features currently available. There are a few features that I've been hearing about for a few years that still are not available on most new PCs. There are also features that I've never heard

of that now appear to be standard. All in all, just like the 1980's Wendy's commercials that asked "Where's the beef?" I'm left asking "Where's the technology?"

The entertainment industry has also made its contributions to our unmet expectations for technology over the years. Remember the late 1960's television series "Lost in Space"? It was scripted to occur in 1997, yet we are still waiting for interplanetary space travel, talking autonomous robots and other innovations portrayed as commonplace. The movies "2001: A Space Odyssey" and "2010" portrayed many similar technological advances for times we have now passed. We do have the International Space Station, but it is not in the same league as the one in "2001". We never got the public videophone capability Dr. Heywood Floyd used to call back to Earth from the station in the film, though I guess it was really not much better than what we can do with Skype today. Some might argue it is just as well we don't yet have computers as sophisticated (especially in interaction with humans) as HAL 9000, though maybe IBM's Watson is getting close.

The reality of technological advancement in personal computers is that, though computers are not yet as sophisticated as HAL or Watson, they are pervasive. Only cell phones are more common now as tech tools in our society, and with smart phones the lines between phones and computers are blurring. There are often examples of advanced technology available to a few at great price, such as Watson in computing or the few wealthy individuals that have bought their way into space on a Russian rocket. These don't really portray the true advancement in technology available to the general public, so I've looked to the computers I've bought recently as a better representation of technology promised and fulfilled.

In the last two years, I've bought two new laptops and two new desktop computers for my wife and myself. These replace XP computers that were up to seven years old, and so represent a big step up in computer technology. The first replacement, and first Windows 7 machine in my house was an Acer Aspire X3950 mini desktop for my wife. Last year I bought myself a Lenovo IdeaCentre K330B desktop, and I bought a 15.6" Fujitsu Lifebook AH531 notebook for my wife. I liked the laptop so much I got a 14" Fujitsu Lifebook LH531 laptop for myself this year. All had Windows 7 and Intel i3 or i5 processors. These were not the fanciest nor the cheapest computers, but are ones I thought represented the best in value in the \$400 to \$600 price range. It is interesting to review the features available in these "typical" computers as compared to the latest technology has to offer.

In networking, we have come a long way. Once, everyone connected to the Internet through a phone modem. Now modems are absent from new computers, having been removed years ago. Wired Ethernet capability became the replacement, proceeding quickly from 10/100BASE-TX to Gigabit Ethernet, which is now the standard on all new computers. All four of my new computers include 10/100/1000 wired Ethernet capability, though I don't take advantage of

the increased Gigabit speed, as my router and switches are all still only 10/100 capable. A survey of Fry's items online showed that for new networking gear, Gigabit has not become the standard that it has for computers and laptops. Most new switches available are 10/100/1000, but only about half the routers are.

The big push in networking improvement is now in wireless networking. Wireless computer users started out in 1999 with 11 Mbit/s 802.11b, and have proceeded up the alphabet with 802.11g (54 Mbit/s), n (up to 150 Mbit/s) and finally ac (up to 866 Mbit/s). My two new laptops both are b/g/n capable, though once again my present router is limited to 802.11g. Here my home network is again behind the times, as most new routers only go up to n capability. Though Fry's does sell an 802.11ac router, I was not able to find any of their laptops with that capability. Even the thin Ultrabook laptops, which don't have a wired Ethernet RJ-45 connector, have yet to add 802.11ac to their features.

It is somewhat surprising to me that there has been such an emphasis on networking speed improvement recently, when for most people the benefits above 10/100 wired and 802.11g wireless are lost. Since few people have network hard drives, their network traffic consists exclusively of an Internet connection, which is often 10 Mbps or less. My Time Warner Cable plan presently gives me a measured 16 Mbps, but even if I bought the 50 Mbps "Ultimate" plan, my present network would not be a limiting factor.

The other typical computer interface is for peripheral devices. This used to consist of a serial port DB-9 connector, but computers lost those years ago. USB2 (Universal Serial Bus, version 2.0, 480 Mbps) became and still is the replacement peripheral interface standard, though now USB3 (5 Gbps) is finally appearing on some accessory devices and computers. USB3 adoption on computers presently appears to be related to price, with USB3 more likely on higher-end computers and laptops. None of my four new computers have USB3 capability, though Fry's showed it was available (often one port only, along with a couple USB2 ports) on some computers in the \$500 to \$1000 price range, and appeared to be on most all computers above \$1000. It surprised me to learn that of the two versions of Microsoft Surface tablet computer announced, the one based on the ARM processor had a USB2 port, with USB3 only available on the Windows 8, Intel processor version. USB has not gone as fast as I would have thought.

Another interface I'd thought would become more popular and prevalent is eSATA, but for some reason it has not. It provides an external interface for the 3 or 6 Gbps SATA interface commonly used on hard drives. Though eSATA interface cards are available to add to computers, I've not seen any new machines come with this interface built in. Another very new high-speed serial interface that appears for now to be only available in iMacs is Intel's Thunderbolt; it promises 20 Gbps.

A surprise in the other direction is the addition of an HDMI (High-Definition Multimedia Interface) video output to al-

most every new computer. It is present on all of my new laptops and desktops. Since HDMI is available on all new HDTVs as an input, it has become for me the default way to hook up a laptop to my TV. When I want to show new photos to my family, the best way is to display them on our HDTV, using an HDMI connected laptop as the source. Since there are more and more devices (like set top boxes, DVD/Blu-ray disc players and HD video camcorders) already competing for the few TV HDMI inputs, I think HDMI switches, which allow multiple devices to use the TV ports, will become popular.

Another new video interface, one I'd never seen before I bought my laptops, is Intel wireless Display, or WiDi. Though both my new laptops have it, I've yet to try it, as it requires a compatible TV or monitor, or an adapter. While the concept sounds good, I was not able to locate many adapters, and the one I did find on Fry's site was around \$100. While it looks like Intel has pushed adoption of this interface on the laptops using their processors, having a TV to wirelessly broadcast video to will be the problem for now.

Another wireless interface that now appears to be implemented on almost all new laptops is Bluetooth. Typical uses include interface with Bluetooth mice and keyboards. While Bluetooth is available on both of my new laptops, I so far have no peripheral devices to use with it.

Blu-ray optical drive technology has been available for over five years, but it has not displaced the standard DVD as the most popular optical disc format. I think cost is again the limiting factor in its acceptance, as Blu-ray capability appears more often in higher-cost computers. At the lower end of the capability spectrum are Blu-ray read-capable drives, which start to become available in mid to high-cost computers. Blu-ray writer drives are presently available only in the upper price tier of computers. None of my new computers came with any Blu-ray compatibility.

As time goes on, I'd expect costs to come down and allow greater adoption of some of the new features that appear limited to high-end computers, such as USB3 and Blu-ray. Until then, all I can do is pay more, or ask "Where's the technology?"

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Performance, Capacity, Ports... Tablet Discriminators

By Phil Sorrentino

Performance, Capacity, and Ports... sounds like something you might think of when you are considering a Vacation Cruise. But Performance, Capacity, and Ports are the three technical things to consider when contemplating acquiring many new devices. These three things should be considered,

especially when you are planning to buy a tablet, a computer, or even a TV. TVs and computers have been around for quite a while, so let's take a look at these considerations for the new kid on the block, the tablet. Usually, when it comes to choosing a tablet, the first thing that meets the eye is the tablet size. Today's tablets seem to be roughly 7 or 10 inch. Once the size has been decided, then the Operating System becomes a choice: Apple's iOS (iOS5, iOS6), Google's Android (and all of its versions, like FroYo, Ice Cream Sandwich and Jelly Bean), or Microsoft's Windows 8 (Pro or RT). And then, with the number of tablets and Operating Systems, the choice can really get difficult. But another way to help you make the final choice may be just to look at Performance, Capacity, and Ports.

Performance is a measure of how fast the device is and how well it accomplishes the desired task. Capacity is a measure of how much you can do with this device. And Ports is a measure of how well the device will interact (interface) with the outside world.

Tablet performance is very hard to measure and quantify, but you really know when you don't have enough. When you do have plenty of performance, it is hard to ascribe the quality to any one thing, specifically. But, usually we look at the speed of the CPU. However, performance is very closely tied to the memory features, so performance may involve the memory speed as well as the CPU speed. Performance of the tablet CPU is measured in GHz, and currently good performance tablets clock in at around 1 GHz. Because tablets are typically touchscreen devices, the first thing we do, to ascertain performance, is to try to control the operation with our finger flicks and swipes. Objects should move when flicked and actions should take place when the screen is tapped. If there is any lag, it is immediately noticed.

There are many different CPU processors used in tablets. Some of the manufacturers are ARM, Nvidia, Apple, Intel, and AMD. Apple CPUs are found in the iPad and CPUs from the other manufacturers are found in the Android and Windows 8 tablets. There are at least two high performance CPU chips being used in the latest tablets: the Nvidia quad-core Tegra 3 in Android tablets and the Apple A5X in the latest iPad. The performance of both of these tablets is breathtaking. But keep in mind, not all tablets have the latest processors.

CPU performance can be determined by running benchmark tests. Benchmark test data is rarely available, but sometimes it can be found in reviews done by a magazine or other organization. Benchmark tests attempt to measure performance by running typically very lengthy and very complicated programs to see how long it takes to complete the task. There are many different benchmarks and when many different benchmark tests are run on a group of processors, the results may not always be conclusive. CPUs are sometimes fast in certain computational areas and not so fast in other areas, like data transfer. To really evaluate a CPU with a benchmark test, the benchmark test should be as close to the

eventual use of the processor as possible, but this is not always easy to specify. Benchmark tests that involve a user, such as testing a game on a tablet, are even more difficult to use, because playing and observing a game may be very subjective, especially if it involves the screen display and input from the game player. So, the best test for performance is to try out the tablet yourself, while doing some of the things that you intend for the tablet, like web surfing, displaying pictures and videos, or playing a game (try Angry Birds for fun). Many tablets can be taken for a “test drive” at the “big box” stores like Best Buy and Office Depot.

So much for Performance: now for Capacity. The Capacity of a tablet is typically the amount of solid state memory the tablet provides. It is basically the data storage component of the tablet, which currently ranges from about 1 GB to 64 GB. This storage is space that is available for your Apps (software programs), and data (used by the Apps). Today, capable tablets usually have from 8 GB to 32 GB of memory. Many Android tablets, and Microsoft’s Surface, also include a microSD slot for extending the memory capacity. Currently, the SDHC standard has been implemented in the microSD hardware, allowing for up to 32 GB of added memory capacity. (At this time, Apple, unfortunately, has not included a memory expansion slot on any of its iPad devices, although they do sell a model with 64GB of memory.)

Ports: refers to the availability of interface connections provided by the tablet. This is the way your tablet interacts with your other devices. Some tablets include a micro, mini, or standard size USB connector. The USB interface allows the tablet to be connected to a computer (desktop or laptop) in order to move files to and from the tablet. This is one method of getting your entertainment media (pictures and videos) on to, or off of, the tablet. This is how you can get the pictures or videos that you captured with your tablet’s camera into your picture collection on your computer. (Again, at this time, Apple, unfortunately, has not included a USB connection on any of its iPad devices, although they do provide a 30-pin dock connector that may be used to connect to a computer.)

Another valuable port found on some tablets is a micro-HDMI port. With this interface, the tablet can directly show video (picture and sound) on any TV with an HDMI input, which is found on almost every new flat panel TV. (Again, at this time, Apple, unfortunately, has not included a micro-HDMI port on any of its iPad devices, although they do provide a 30-pin dock connector that may be used to output video.)

Two other interface connections should be considered as ports although they are not obvious when you look at the hardware. These are Wi-Fi and Bluetooth, neither of which has a hardware connection because both of these are wireless interfaces. These interfaces allow the tablet to interact with other devices that subscribe to the Wi-Fi and Bluetooth wireless standards.

And finally, although few tablets incorporate this, let’s not forget about NFC (NearField Communications). This wireless interface has many uses, but may only end up on smartphones. NFC will allow easy transfer of files between closely situated (within a few centimeters) devices. This interface may be instrumental in allowing you to use your device as a wallet, in the future.

Once you’ve decided to buy a tablet, the next thing is to evaluate the Performance, Capacity, and Ports of the most interesting offerings in the market. Usually, there will be a few that meet most of your criteria. At that point it becomes a matter of value: capability for dollars. Good luck.

Phil Sorrentino <philsorr (at) yahoo.com> is a Member of the Sarasota PCUG, Florida <<http://www.spcug.org>>. This article is from the December 2012 issue of the PC Monitor.



What You Can Do If Your Mobile Phone Gets Wet

By Tom Allen

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Many of you get your mobile phone wet by one way or another. You worry as you mistakenly drop your mobile phone in water. It can also get wet if you are out in a heavy rain. However, there is no need to panic.

It is possible to save your wet mobile phone by quickly repairing it. In order to save your mobile phone from water damage, you can consider doing this:

The most important thing you have to do is to act rapidly. Quickly remove all the detachable parts as well as covers possible such as the back cover, battery, the SIM card, memory card etc.

Next, take a piece of cloth or a tissue paper to wipe the excess water you are able to notice within the mobile phone. Make sure that you dry it completely. If you don’t do this, the water inside the mobile phone will begin to evaporate and gather in places which will be difficult to reach.

Take a hairdryer and begin drying the mobile phone while giving more consideration to the place where the battery is located. The battery housing usually consists of tiny holes to let in air (so giving more space for water) inside the mobile phone. It will take several minutes. You may also set your oven to 180 degrees and let it pre-heat (if you are brave!). Turn it off, open the door and set the phone in it for about half an hour. I have done this but watched it very carefully and the phone survived.

Help Lines

HARDWAREHELP	AdvisorNo.
Reformat Hard Disk, FDISK	2, 4, 5
Install Hard Drive, CD-ROM/RW	2, 4, 5
Install Video Card	7
Partitioning Hard Drives	2
Internet/Intranet	6, 7
Audio Cards	4
MPs Files, WMA Files, WAV Files	3, 4
Burning CD's	3, 5
Homesite	7
Net Objects	7

SOFTWAREHELP	AdvisorNo.
Win 95/98/ME/2K/NT/XP	2, 3, 4, 7
Win 7	4, 7
Microsoft Word	2, 7
Microsoft Excel	4
Microsoft PowerPoint	4
WordPerfect	1, 7
Norton/Symantec AntiVirus	2, 3, 6, 7
Norton System Works	2, 7
CompuPic / CompuPic Pro	3, 7
Winzip, WinRAR	6
Ccleaner	3, 4
Outlook, Outlook Express	2
Internet Explorer	2, 7
RegSeeker	3, 5
Instant Messaging	2
Installing Software after Reformatting	5
Deleting Files; Wiping	6

ADVISORS

Name	Phone	Hours
[1] Fred Shelton	(253)752-0120	Variable
[2] Bob Henkel	(253)537-6732	8A-8P any day
[3] Tom Stepanek	(253)922-7939	7-9P Mon-Fri
[4] Carl Tenning	(206)824-3843	6-9P Mon-Fri
[5] Oclad Wesley	(253)212-0352	6-9P
[6] Bob Thomson	(253)752-5582	Variable
[7] Ray Mills	(360)692-7568	6-9P Mon-Sat

TACOMA MEETING

When: **Mon 8 July 2013 -7:00 PM**
Where: SE Tacoma Community Centre
1614 99th Street E.
Tacoma, Washington

From I-5 take Exit 127 (Hwy 512) to
Portland Ave., north on Portland to 99th,
left over tracks. Building is on south side.

Future Dates: 2nd Monday of Month

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Deadline: 15th of this month to appear
in next months' issue, if room

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How To get To The Meeting

For those readers still unfamiliar with how to find our meeting place we have reproduced the map showing its relationship in Tacoma to Portland Ave S. and the 512 Freeway. The 512 Freeway can be entered from I-5 in Tacoma on the west or from Hwy 167 in Puyallup on the east. Proceed to Portland off-ramp and turn north to 99th Street. Some folks in the middle of Tacoma may prefer to take Portland southbound to 99th. At 99th turn west over the tracks and there you are!



TOGGLE

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1808 Lenore Drive
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Change Service Requested

PROGRAMS

This Month's Meeting

This will be a regular monthly meeting. Meeting discussions are always interesting and the ever-popular Q&A (Question & Answer) period is sure to pique your interest, come up to your expectations and tickle your fancy. Come and share your own experiences, problems and discoveries.

Program Presentation:

No program presentation has been announced at press time.