

# TOGGLE

THE MICROCOMPUTER TURN (ON)

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## UPDATE

### Communications

In *Blocking Unauthorized USB Devices* the author says: "In terms of computer security and privacy, USB devices are usually the weakest point. Even the strongest firewall or security software can be bypassed just by plugging in a USB drive." further down in the article he states: "Besides data theft and privacy issues, USB devices are now the main method of propagation for computer viruses and spyware." Worth a read.

In *Jump Lists* the author describes a feature of Windows 7 that allows you to jump directly to recently opened programs.

In *Skydrive Changing Overhead Fees for Travel to the Cloud* the author notes that "Microsoft has updated free SkyDrive that comes with a Windows Live and Hotmail account. " Whereas although you have had 25GB of storage space in SkyDrive, that is going to drop to 7 GB unless you elect for a free upgrade! Read all about it.

### Operating System

In *Bye Bye XP* the author reports that support for Windows XP will cease on April 3, 2014. If you are still using XP read all about it.

In *The Transitional Operating System* the author speculates on what the next advances in operating systems will be.

### Word Processing

In *Automatic Scrolling* the author describes how to scroll in WORD even if your mouse does not have a scroll wheel.

### Hardware

In *Building a PC* the author suggests a couple of books you should look at and gives advice on selecting parts and building your own machine.

In *HDTV Resolutions 720p and 1080p Explained* the author gives a good explanation of some of the technical features that are offered but are not necessary because broadcasters are not using those features. Worth a read if you are upgrading.

### General Interest

In *Streaming Media* the author says: "Streaming" is listening to music, watching a TV program or movie as it is being delivered to you over the internet. The technology is very difficult (say geek intensive) but it works and well for many of us and is an alternative to cable or satellite delivery of the signals." He then goes on in some detail about what is available on line.

In *Basic DVD Recording* the author goes into some detail about what sort of equipment you need to record DVD's adequately.

In *Tips And Tricks For Enhancing the PC Visual Display* the author describes and discusses several programs available to modify the screen display to suit your needs. Most apply to both Windows 7 and XP



## COMMUNICATIONS NOTES & TIPS

### Blocking Unauthorized USB Devices

from WorldStart's Computer Tips via TAPCUG's DataLine

Note: This tip may not apply to all versions of Windows.

In terms of computer security and privacy, USB devices are usually the weakest point. Even the strongest firewall or security software can be bypassed just by plugging in a USB drive.

With the growing amount of data a single USB flash drive can hold (up to 128 GB) and the increase to data transfer speed (with USB 3.0) you can imagine how easy it is to copy data to such a device. Using the newest generation of USB devices, data thieves can copy your entire hard drive in minutes.

Besides data theft and privacy issues, USB devices are now the main method of propagation for computer viruses and spyware. Inserting an unknown USB device into a computer can be dangerous. As most of the worms transmitted this way are new, they could go undetected even by the best security suites.

So, how can we protect our privacy and data from such a security risk? By giving access to the computer to only those USB devices that we trust.

This is easily done by modifying NTFS permissions on a few Windows system files to allow only specific users the right to install USB devices on that computer.

**Note:** To follow the steps below in Windows Vista and 7, you need to be logged in with an administrator account or have administrator rights for the computer. Windows XP users, see the notes throughout the article for similar steps.

The files we need to modify are located in the **Windows\inf** folder on your primary partition (usually C).

To make it easier to navigate to the folder and make sure you can find it regardless of how your partitions are set up, we are going to use a shortcut. Go to the Start Menu and type the command `%windir%\inf` into the search field. Then press the Enter key to confirm.

**Note:** In Windows XP, go to the Start Menu and click on Run, then type in the command `%windir%\inf` and press the Enter key.

This will open an Explorer window directly to the **inf** folder. Scroll down the list of files and folders until you reach the files **usbstor** and **usbstor.PNF** (they should be next to each other).

Now, to modify the NTFS permissions for these files, right-click on each file and select **Properties** (the last item on the contextual menu).

In the **Properties** window go to the **Security** tab and click the **Edit...** button. A new window containing NTFS permissions for the file will open.

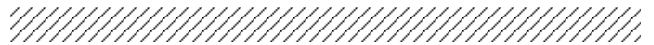
**Note:** In Windows XP, if you do not see the **Security** tab, go back to the **inf** folder window and click on **Tools** and then click on **Folder Options...** Next, go to the **View** tab and uncheck the **Use simple file sharing** box (the last one under **Advanced** settings). After you click OK to apply, you should see the **Security** tab.

**Warning! Do not deny permissions to the SYSTEM group. In addition, you must allow access to these files to at least one group of users. If you check Deny on all users, you will not be able to install new USB devices on that computer (until you reinstall Windows).**

Here you can see a list of all the user groups active on your computer. Select the user or user group you want to block from installing USB devices and check the **Deny** box next to **Full control** (under Permissions for users). To confirm and exit, click the **OK** button.

If you receive a Windows Security warning, click **Yes** twice to apply the settings. Also, remember that you need to go through these steps and change permissions on both files.

To reverse these settings and allow the blocked users to install USB devices, log in with your administrator account (one that still has access to the files), follow the steps above and uncheck all the Deny boxes for that user.



### Jump Lists

from Big Bear Computer Club Bearly Bytes May, 2012

Jump Lists are lists of recently opened items, such as files, folders, or websites, organized by the program that you use to open them. You can use a Jump List to open items, and you can also pin favorites to a Jump List, so you can quickly get to the items that you use every day. Go to the Windows website to watch the vid-eo. (2:02)

The same items appear in a program's Jump List on the Start menu and on the taskbar

### Managing programs and items with Jump Lists

On the taskbar, Jump Lists appear for programs that you've pinned to the taskbar and programs that are currently running. On the Start menu, Jump Lists appear for programs that you've pinned to the Start menu and programs that you've

opened recently. (Jump Lists don't appear in All Programs on the Start menu.)

Jump Lists can include recently opened items, frequently opened items, tasks, or websites, in addition to any items that you've pinned.

You'll always see the same items in the Jump List for a program, regardless of whether you view the list on the Start menu or the taskbar. For example, if you pin an item to a program's Jump List on the taskbar, the item also appears in that program's Jump List on the Start menu.

- In addition to any pinned or currently open items, Jump Lists on the taskbar contain several commands that you can use to close an item or unpin the program from the taskbar.
- You can drag an item from a Jump List to copy it to another location. For example, you can drag a document from a Jump List to an email message if you want to send it to someone.

### To view the Jump List for a program

Click Start, point to a pinned program or to a recently used program near the top of the Start menu, and then point to or click the arrow next to the program.

### To open an item from a Jump list

Click Start, point to a pinned program or to a recently used program near the top of the Start menu to open the program's Jump List, and then click the item.

### To pin an item to a Jump List

1. Click Start, and then open the program's Jump List.
2. Point to the item, click the pushpin icon, and then click Pin to this list.

### To unpin an item

1. Click Start, and then open the Jump List for the program.
2. Point to the item, click the pushpin icon, and then click Unpin from this list.

Source: <http://windows.microsoft.com/en-us/windows7/Using-Jump-Lists-to-open-programs-and-items>

## SkyDrive Changing Overhead fees for Travel to the Cloud

by Drew Kwashnak Danbury Area Computer Society, May 2012

Microsoft has updated free SkyDrive that comes with a Windows Live and Hotmail account. Anybody who had a Windows Live or Hotmail account before April 22, 2012 enjoyed 25GB of storage space in SkyDrive, but that is going to drop to 7 GB, which new users get, unless you elect to a free upgrade! If you already have over 7 GB of files stored in your SkyDrive, you are automatically upgraded to 25GB, and need not do anything.

To keep your 25 GB of SkyDrive space, log into SkyDrive through any browser. When you log in, you should see a banner with a link on where to go to "claim your free 25GB"

If you don't see the banner, like if you closed it without realizing what it was for, you can get to the same location by a link on the sidebar.

Click Manage storage and you will see the option to upgrade your storage (back) to 25GB or purchase additional space, which is new.

But hurry! Who knows how long this offer will last.

## SPDY: April Keyword Explained

Nibbles & Bits, Orange County PC Users Group - May 2012

SPDY is a new protocol built on top of HTML aimed at reducing page load times by 50 % or more.

SPDY (pronounced speedy) is an experimental networking protocol developed primarily at Google for transporting web content. Although not currently a standard protocol, the group developing SPDY has stated publicly that it is working toward standardization. SPDY is similar to HTTP, with particular goals to reduce web page load latency and improve web security. SPDY achieves reduced latency through compression, multiplexing, and prioritization. The name is not an initialism, but is a shortened version of the word “speedy.” SPDY is a trademark of Google.

### Relation to http

SPDY does not replace HTTP; it modifies the way HTTP requests and responses are sent over the wire. This means that all the existing server-side applications can be used without modification if a SPDY-compatible translation layer is put in place. When sent over SPDY, the HTTP requests are processed, tokenized, simplified and compressed. For example, each SPDY end-point keeps track of which headers have been sent in the past requests and can avoid resending the headers that have not changed; those that must be sent are sent compressed. The IETF working group for HTTPbis started working in 2012 on integrating the SPDY features into HTTP 2.0.

### Browser support and usage

The browsers Google Chrome and Chromium utilize SPDY sessions. As of version 11, Mozilla Firefox and SeaMonkey 2.8 support SPDY, though it is not enabled by default. SPDY is set to be enabled by default with the release of Firefox 13. (Source: Wikipedia)

A Google test page using SPDY loads in 300+ milliseconds. You can try it yourself at <http://spdytest.com/>.

An explanation in simpler language, What Web Users Need to Know About SPDY, is at <http://rww.to/14mI4h>. There is also a Google Tech Talk video on the same page. It is an hour long, in-depth, advanced video presentation with two speakers using slides. (Image from the video is shown here.) -LG

## OPERATING SYSTEM NOTES & TIPS

### BYE-BYE, XP

by Elaine Szaniszló, May 2012

Last month, Microsoft reported that two years from April 9 all support for Windows XP and Office 2003 will cease, leaving anyone still running these products with significant potential functional and security exposure. The company then, for reasons that aren't clear, flip-flopped on Office 2003 and

pushed out the support death sentence until October 2014. So, for the Extended Support period, all of these products will be gasping for breath with only the most pressing security issues getting any kind of fix.

This announcement signals the end of an era for the company, and potentially the beginning of a nightmare for everyone else. When Microsoft cuts the cord on XP in two years, it will effectively leave millions of existing Windows-based computers vulnerable to continued and undeterred cyberattacks, many of which hold the potential to find their way into consumer, enterprise and even industrial systems running the latest software.

Windows XP remains one of the most common operating systems despite the introduction of two entirely new versions in the decade since it hit shelves. In fact, recent statistics show XP in the lead for operating system market share, at 43.09%. Source: (<http://www.netmarketshare.com/report.aspx?qprid=11&qpaf=&qpcustom=Windows+XP>)

So, what will happen to those Windows XP and Office 2003 users when 2014 rolls around? While some consumers and a few businesses will try to hang on, the lack of support will encourage most people to migrate to the new hotness of Windows 8 and Office 2012 and pay the unavoidably steep price.

Tony Bradley, PCWorld writes: “Your Windows XP systems will continue to work as they have for the past decade. But as of April 8, 2014, Microsoft will no longer support the operating system, or provide patches or security updates for it. So, from that point forward the OS will become increasingly unstable and insecure. Essentially, you’ll be on your own.” Source: ([www.pcworld.com/businesscenter/article/253585/clock\\_is\\_ticking\\_on\\_xptime\\_to\\_plan\\_os\\_migration.html](http://www.pcworld.com/businesscenter/article/253585/clock_is_ticking_on_xptime_to_plan_os_migration.html))

Mark Gibbs, NetworkWorld suggests: “Perhaps Microsoft should turn these products loose, make them open source and leave their care and maintenance to people who care enough to do so. You know that instantly projects would emerge to work on core maintenance. Then distros\* as wildly varied as those you find with Linux would spring up and a whole new eco-system of computing would emerge.

“I think there’s also an ethical issue here for Microsoft: Millions of people made investments in those products that goes far beyond what they actually paid Microsoft. Those investments involved the integration of the products with their lives, their businesses, their projects and their hobbies. They essentially acquired a new language and a new way of thinking when they picked Windows XP and Office 2003.

“Now Microsoft is saying users have to learn a whole new language or find themselves out in the weeds. If Microsoft turned these products loose, what would be the penalty to the company? Maybe a few lost sales, but the good will and good karma from doing something so positive and constructive with ‘lifer-out’ product lines would be of enormous benefit to society, not to mention to Microsoft’s image.”

## The Transitional Operating System

By Berry F. Phillips  
ccOKC - eMonitor May 2012

The Operating System (OS) is the most important piece of software on your computer. From a user perspective, the OS provides the interface with which the users interact. Behind the scenes, an operating system carries out many additional functions. The OS recognizes drives and communicates between applications and the processor. The OS manages a directory of files, and manages resources such as fonts and system sounds. Without the operating system nothing happens! In this article we will explore what we can expect from operating systems of the future.

When the OS evolved from command-line interfaces to graphical user interfaces, many tasks that computer users routinely carried out became much easier and user friendly. The graphical user interface or GUIs made possible by the invention of Xerox PARC was the major step toward making the computers accessible to the average computer user not just computer geeks.

In recent years, the standard GUI began to show signs of age. Hardware and software have become increasingly complex. To the rescue, came the wizard--a simple piece of software that converts complicated tasks into an automated procedure. In the future, you can expect to see more wizards incorporated into operating systems.

As various kinds of media were formerly separate--such as mail, television, radio, and telephony--converge on the desktop, expect operating systems to evolve to deal with these seamlessly. Operating systems in the future will easily operate these multiple systems which will be merged with the operating systems in the future.

The ideal OS is one that we never have to think about. It will function as an obedient Victorian-era servant who knows our wishes better than we do. We will see voice activation and instruction continue to develop and be integrated into future operating systems. Jeeves, our OS butler, may well take care of most of our commands.

I am speaking to my OS, "Write me an article for the Computer Hysteria Column for the monitor. Nothing is happening. Well, if my OS cannot do that I will try something else. "Fix my supper and clean my apartment!" Nothing is happening. I guess I will have to wait for future developments of the operating system.

## WORD PROCESSING NOTES & TIPS

### Automatic Scrolling

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Thousands of free Microsoft Word tips can be found online at <http://word.tips.net>.

Mice in the PC world have, for some time now, been designed with a special little wheel or lever between the two buttons. The purpose of the wheel or lever is to scroll quickly through a long document. If you do not have such a mouse you can still get the benefits of automatic scrolling through an undocumented Word command. Simply follow these steps:

1. Choose the Customize option from the Tools menu. Word displays the Customize dialog box.
2. Click on the Commands tab. A list of Word commands appears.
3. In the left side of the dialog box, select the All Commands option.
4. In the right side of the dialog box, select the AutoScroll option.
5. Drag the AutoScroll option to some place on one of your toolbars. When you release the mouse button, a button named Auto Scroll should appear on the toolbar.
6. Click on Close to close the Customize dialog box.

To use your new command, simply click on the new toolbar button. When you do, the vertical scroll bar at the right side of your screen changes. A new double arrow appears in it. As you move the arrow up and down along the scroll bar, you control how fast the document scrolls either up or down. To exit the scrolling mode, you can either press the Esc key or click the mouse button. This tip applies to Microsoft Word versions: 97, 2000, 2002 and 2003. You can find a version of this tip for the ribbon interface of Word (Word 2007 and later) here: [http://wordribbon.tips.net/T009859\\_Automatic\\_Scrolling.html](http://wordribbon.tips.net/T009859_Automatic_Scrolling.html)

## HARDWARE NOTES AND TIPS

### Building a PC

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Newsletter: BUG Bytes ([www.bcug.com](http://www.bcug.com)) n2nd(at)charter.net

There are several reasons why you might want to do this: you may be an experienced user with definite ideas about what you want; you may like to tinker and want a system that is easy to change; or you may want to save money by cannibalizing old systems. You probably won't save money, because you will probably use higher-quality and higher-performance parts than do PC system manufacturers. You will learn how PCs are

assembled (but not how they work), which means that your computer will be easy to expand.

If you are building a new system, I highly recommend the book *Building the Perfect PC*, by Robert and Barbara Thompson, which describes six different PC designs, one of which is probably close to what you have in mind. They discuss system design and component selection, as well as the construction process, and recommend specific manufacturers and vendors. This is by far the best book I've read on the topic, and it's worth a scan at your local bookstore, even if you have no plans to build anything. You may find, as I did, that it will inspire you to get busy. There is just one caveat; although the book was copyrighted in 2011, technology has advanced, and there are superior replacements for many of the components they recommend.

If you are interested in the repair and refurbishment of older PCs, get a copy of *Upgrading and Repairing PCs* by Scott Mueller. This costs twice as much as the Thompson's book and is four times the size, but its scope is comprehensive. This isn't a set of step-by-step instructions, but is more of a PC reference book; as a result, you can expect to do some heavy slogging.

For the remainder of the article, I'll assume you are building a new PC with modern, high-quality components. (While it's interesting to assemble a system on the cheap, using no-name components, it will be difficult to build and perhaps unreliable.) The project will have four phases (1) system design, (2) parts orders, (3) construction, and (4) software installation and configuration, with system design taking the longest, typically longer than the other three combined.

Before going further with the electronics, you should consider cases, which must fit your motherboard. I used one from Antec on my project, and I'm very impressed with it, although I've also used Lian Li cases, most of which are aluminum models and hence are relatively light. If you have size constraints, you may find that you need a motherboard that is smaller than the standard ATX size. A small system box appears desirable, but be realistic; usually you can find room for a full-sized case on the floor and the cramped interior of a compact one makes it difficult to assemble and often noisy to cool. Again, download the manuals for any cases you are considering and eliminate any units for which good manuals are not available. My Antec case manual had 13 pages (again a nice contrast to the single sheet we would get for computer show cases).

Loop through the CPU-motherboard-case selection process as many times as needed to be sure you have sensible designs for the core components before you continue on to the other parts. For RAM, I prefer Crucial, but Kingston and Corsair are also good. Entering your motherboard model on Crucial's Website will result in a good recommendation, but check against your motherboard manual to be sure.

Since most motherboards include quite capable integral sound and display controllers, you won't need expansion

cards for these functions unless you have special requirements. I've had good luck with Seagate drives and always use these. Removable drives are a bit of a problem, since price considerations have driven high-quality products off the market (the Wal-Mart effect). Fortunately DVD drives are cheap and easily replaced. (Don't even consider a diskette drive, as the quality of the few available models is extremely poor; many are dead on delivery, and so cheap that they are not worth returning. You probably can't get around this by using an old drive, since it probably has an IDE interface and modern motherboards have only SATA ones. Although IDE expansion cards are available, their quality too is very poor.) The only remaining internal component is the power supply, which I've left until last because you need to know how much power the other components require and what power connectors they use. Consider units from Antec, PC Power & Cooling, and Seasonic.

The most important external component is the display, where you shouldn't be stingy on the size, although it does have to fit within the space on your desk. I chose an ASUS one, but NEC, Samsung, and ViewSonic are also good. I think that the reliability of those with an LED backlights is worth the small premium price over units with fluorescent backlights. Keyboards and mice are commodity products, but I prefer Logitech and Microsoft over the slightly cheaper no-name alternatives. Don't count on reusing your old keyboard and mouse; they probably have PS/2 connectors, and new motherboards have only USB ones. Finally, I like Logitech speakers.

Many components are available either as consumer or OEM (original equipment manufacturer) parts. Consumer parts typically come in a package with instructions, mounting hardware and cables, a guarantee, and access to the manufacturers help line, while OEM parts include none of these. Also OEM components are frequently stripped down to reduce their costs; as a result they may have fewer features and lower performance than the consumer versions. For example, consumer CPUs include a cooler designed for that unit, while OEM CPUs do not.

Usually, getting the consumer model is worth the small added cost. It appears that hard disks are available only on an OEM basis, which means it's important to buy them from a reputable manufacturer.

Up to now, you've only spent your time, but this changes when you order parts. I've had very good luck with Amazon and Newegg, but neither is perfect. Many items on Amazon's Website are sold directly by them, but for others they are just an agent for another company and here you must be careful. I had one of these companies try to charge me \$200 shipping on a \$30 expansion card. When I complained to Amazon, they were not the least bit embarrassed, saying that they took no responsibility for the unethical behavior of third parties. With Newegg you have to be careful in placing your order; their process is not as refined as Amazon's, and in particular it's easy to place your order twice. With both, check the shipping

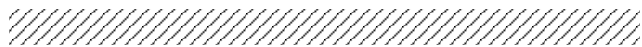
costs carefully. Having said that, I prefer to deal with these two companies when I order electronics. A very valuable feature of both sites is the customer reviews. Ignore the numerical ratings, which mean little, but carefully read the comments, where it is easy to identify the balanced, knowledgeable comments from the petty whines.

While you are waiting for the parts to arrive, print out all the manuals you've downloaded, because once you unpack the boxes you will find only quickstart guides. The only tools you will probably need are Phillips and flat-head screwdrivers. I also use a wrist-band to discharge static electricity (available from Radio Shack), but you can skip this if you are careful. (See the Thompson's book.) An experienced user can assemble a new PC in about an hour, but expect to take longer since you will probably have to do some things several times to get them right. I find that after an hour or so, I need a break, preferably until the following day. Often, during the break I will think of something I should have done differently. Some steps can be tricky; it took me three tries to get my motherboard installed in the case correctly, even though I've built several PCs. In any case, take your time; it's supposed to be fun, and if in doubt take a break.

For prove-in I prefer an Ubuntu live CD-ROM, which doesn't use the hard disks at all and lets you check out your new hardware before you spend time installing an operating system. Who knows, you may find you like it well enough to set up your PC to run both Linux and Windows.

Your last step is to place all the packing slips, receipts, installation DVDs, manuals (both those included with the parts and those you downloaded) into a large envelope, place all the parts and cables you didn't need in a single box, and label both. If you later expand the system or add software to it, store the paper, DVDs, and extra parts in the same envelope and box. This will make upgrades and repairs much, much easier.

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## **HDTV Resolutions 720p and 1080p Explained**

by Sandy Berger, CompuKISS ([www.compukiss.com](http://www.compukiss.com))  
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If you go into the store to purchase a new television these resolutions will be prominently displayed. However they might not be as important as you think. This is especially true if you are moving into the world of HDTV for the first time. Compared to an old standard TV, just about any HDTV will look spectacular, no matter what the resolution. Many experts in the field will tell you that they consider things like contrast ratio, color saturation, and color accuracy to be more important than resolution.

That said, when you choose a HDTV, the resolution will be the first thing you see when you start shopping. The resolution is the number of pixels on the screen. All other things being equal, more pixels will produce a better, sharper image. A 720p television has 1280 horizontal pixels and 720 vertical pixels. A 1080p television has the same number of horizontal pixels (1280) but has 1080 vertical pixels, essentially giving you more detail in the picture. The "p" stands for progressive scanning which is superior to another scanning technique called interlaced scanning, which is represented by an "i". You don't have to worry about the "i" or the "p" because most televisions sold in the US today use progressive scanning.

1080p is the best resolution available today and you will pay a premium to get it. Having a 1080p TV, however, is only good if you have 1080p content to show on the TV. Unfortunately, currently there are no over-the-air television broadcasts in the United States that are transmitted in 1080p. Although television stations and cable and satellite providers have the ability to transmit in that resolution, few are willing to take that step because 1080p transmissions take up a lot of bandwidth. At this time there are only a few satellite provider that utilize the 1080p format and these are strictly limited to their pay-per-view movies.

So most people will find that the only way to enjoy the full details of a 1080p television is to purchase a Blu-ray DVD player. Blu-ray disks are formatted in the full 1080p resolution and will show off the full potential of a 1080p TV.

Whether you purchase a 720p or 1080p television, standard-definition content won't necessarily look any better. Although, depending on the television, the signal may be upconverted to make it look better. In some geographic areas, you can get hi-def signals over the air. You can also get hi-def stations through cable and satellite providers.

If you don't want to purchase a Blu-ray player, you can still use your old DVD player and your old movies will look better than ever. Standard DVDs, which are 480p in resolution, will be upconverted by a HDTV and will look noticeably better on a HDTV, whether it is 720p or 1080p.

One other thing needs to be taken into consideration when talking about resolutions. In order to see the extra detail that a 1080p TV provides, the screen size must be quite large. That is why HTDVs are generally quite a bit larger than the old standard definition televisions. Also, you need to site close enough to the TV for your eyes to actually be able to see the extra details.

This is where it gets a little confusing. Basically, unless you have a very short distance between you and the TV, you will need a larger screen with 1080p than with 720p. That's one reason why most televisions in smaller screen sizes will be

720p rather than 1080p. Even with 1080p Blu-ray disks, the 1080p quality only begins to become noticeably better as the screen size increases. You can see from these details that although 1080p is the premium resolution, 720p is a lower-cost option, and may be perfectly fine depending on your needs.

Besides the options like plasma, LCD, LED, 720p and 1080p, there are plenty of other specifications that you can look at when purchasing an HDTV. Higher end televisions will also have things like better contrast ratios, extra HDMI ports for attaching additional equipment, and Internet connectivity. Higher ends LCD and LED TVs will also have higher refresh rates and better backlighting.

If you want the best hardware, look at the 3-D TVs. You may not want 3-D in a television. If you are like me, you may not even like it, but 3-D TVs have higher hardware requirements and will, in effect, be the best televisions, even without the 3-D. Not everyone will want or need the best or costliest HDTV. Fortunately there are sizes and models available to suit the needs of almost everyone.

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## GENERAL INTEREST

### STREAMING MEDIA

By John Somers, member, ICON Users Group, MO  
March 2012 issue, The ICON - Newsletter of the Interactive  
Computer Owners Network  
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“Streaming” is listening to music, watching a TV program or movie as it is being delivered to you over the internet. The technology is very difficult (say geek intensive) but it works and well for many of us and is an alternative to cable or satellite delivery of the signals. Several years ago Bill Gates said famously or infamously, “The internet, who needs it!” And this year Steve Jobs said, “We are in the post PC era”. More and more people use the internet and communicate over smart phones and tablets and do not use computers as we know them. Smart phones and tablets are indeed computers but without a large monitor and a keyboard.

Streaming of music began in the mid to late 90’s as personal computers became more powerful and the networks connecting them became capable of supporting faster data rates. As these trends continued, it became possible to stream TV programs and eventually movies. This is different from buying or renting a TV program or movie which is downloaded to your computer for you to watch at your convenience. The driving force is us we do not want to be tethered to the radio or TV

stations schedule or have to go to a movie theatre or to a store to buy a DVD. We want to watch what we want when we want it. Time shifting has become more sophisticated compared to the days of the VHS or Beta (remember them?) Netflix recommends 5 Mb/s or more for the best audio and video experience.

First, the sources. (And I will write only about common and legal methods/sources of content, not about illegal/pirated sources of content mostly or completely off-shore now and clearly violating copyright.)

All the websites listed in this article are .com’s unless another domain is listed. (Example: Pandora.com)

**MUSIC:** Pandora, Spotify, 8tracks, Deezer, fizey, Grooveshark, Last.fm, Mflow, MOG, Pandora, Qriocity, Rhapsody, Slacker, Thumbplay, we7, WiMP and Zune are among the streaming music sources. This list is probably not complete as things change practically daily. Pandora and Rhapsody are among the best known. Pandora is free but you get ads. There is a paid version (\$3.50/month) without ads. You get to choose your artist or genre or composer or song and they deliver that or similar material to you. It is also available on many automobiles and on tablets and smart phones as well as computers. For details of how each of these services work and if you need to download a player, and whether they are free or pay I refer you to their websites. Which, if any, you choose, is a very personal choice: what works for you. Your computer will understand the format as all send MP3’s and other common music formats. Only Microsoft uses Windows Media Audio files for music but Zune (Microsoft’s service) streams in MP3, AAC, MP4, mp4, mov, and WMA formats.

**TV Programs and Movies:** some commercial, some not. Zune, Netflix, Atom.com, blip.tv, Break.com, Citytv.com.co, DaCast, EngageMedia, Flickr, iFilm, imeem, Metacafe, MoboVivo, Multiply, MyVideo, Openfilm, Phanfare, Qik, Revver, RuTube, ScienceStage, sevenload, showmedo, Tudou, Twango, U-verse, Veoh, Vahoo Video, Youku, and YouTube are among sources for streaming video on-line.

I want to emphasize the commercial ones with commercial TV programs and movies and those most used: Netflix, Hulu, and HuluPlus, and Amazon. You can also get TV in Win7 with Media Center set for TV. Some networks are increasingly moving you to their site for the TV programs (CBS on Hulu for example). Disney-ABC, NBC and Fox own Hulu. Netflix is an independent company which began renting DVD’s by mail and more recently began streaming. You may be aware of the upset when they tried to separate the DVD service and the streaming and charge more for streaming.

Hulu free gives you the latest 5 episodes of your favorite TV programs. For \$7.99 monthly (HuluPlus) you get the full season and sometimes more than one season. Movies are the current ones and many older ones (Some services claim 10,000.) You get to choose. It’s not the manager of your local Cineplex choosing. Once released on DVD they become generally available if the service has negotiated rights to the

flick or to the studio's films. There clearly is conflict between Netflix, Hulu and Amazon and other streaming services and the studios. The movie companies are terrified about what happened to the music industry and only grudgingly cooperate.

How do you get the signal from your router/wireless access point to your TV and what equipment do you need? The simplest way is by registering your device with the service using your Xbox, Playstation 3, Wii, Blu-ray DVD player, smart phone, or other internet/wireless enabled device. Yes, you can use a computer and the HDMI output on your computer to the HDMI input on your TV. You can also use an Ethernet cable network or route the signal through a power line network. If you want to see other internet material on your big screen TV (using it as a giant monitor), you need a "smart" TV. Remember the signals on the internet are different from those on your cable/satellite/or over the air TV station, and a "brain" is needed for the conversion automatically. Some Smart TV's are wireless enabled, and Sony and Samsung make wireless adapters for their TV's. I presume other manufacturers do so also.

Amazon now has two forms of video access: Amazon Instant Videos and (Amazon) Prime Instant Video. The former provides rental or purchase of videos which may be watched by streaming or downloaded to your computer and watched later. Prime Instant Video provides unlimited streaming of thousands of movies and TV shows without commercials if you are a Prime (\$79/yr) member. Not all videos in the Amazon Instant Video store are in the Prime instant video catalog. Videos in the Prime Instant Video catalog can only be watched by streaming and are not available for downloading. There is a great deal of information on the Amazon site. Start on the upper left side of the home page where it says "Instant Video" and on the following page on the right side below "Start Your one Month Free Trial" is "Help and FAQ's." Click there and on the following page in the middle in blue is a link "Amazon Instant Video" and then on the next page in the middle is "Watching Videos" which gives several choices depending on whether you will be using a computer or an internet connected device. When you (tired yet?) go to your choice, you will get details of connection methods and possibilities.

The easiest way to connect is the HDMI cable from computer to TV and there are adapters to convert the business end of the HDMI to composite cables (3 cables, Red and white audio and yellow video) if your set requires those connectors.

Roku, a streaming device, available for about \$50 from roku.com has comprehensive connection directions. The Roku XD/S has HDMI and component output for high fidelity video on new and older televisions.

Nintendo has just announced that Hulu and HuluPlus can now be streamed on the Wii ( they previously just had Netflix) but you will need to download an "app" from their website.

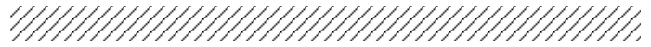
Redbox and Verizon have announced they will start a

streaming service, no details yet.

I will mention iTunes since everyone knows them. They stream radio stations, podcasts, and iTunes University (lectures from many U's; there is a huge list on their site) but not TV programs or movies. Those are rentals. If you rent a TV program or movie from them, it is downloaded to your machine (not streamed). You have it for 30 days, but once you start watching you only have 48 hours (TV) or 24 hours (movie) to watch it. From iTunes.com, download iTunes 10.5 for Mac/PC.

Important to remember: not all services carry all content (programs, movies), and not all devices other than computers (and Roku?) will display all content. Check their websites before plunging in. Apple TV and Google TV seem to be especially limited but other devices may be also.

The bottom line is that the power of computers, the capacity of operating systems, and the capabilities of the networks have improved to the point that streaming has become possible for almost everyone.



## Basic DVD Recording

By Bob Elgines, Editor, Colorado  
River Computer Club, Arizona

DVDs are like CDs, but with greater capacity; you can record sound, video, or data. The latest CDs allow 700MB of data, or 80 minutes of sound or video (mpeg1 format) whereas the DVDs allow 4.7 GB or 120 minutes of sound or video (mpeg2 format). Then you have Double Layer DVDs which allow 9.6 GB or approximately 3.7 hours of video. As we probe into the basics you will find approximately 10% of the room on your disk is used by Titles, Menus, and Directories.

First, what do we need to accomplish the recording of data, and sound: A computer with a minimum of 1 GHz, 512 MB of RAM, 40 GB hard drive, CDR optical drive, video with 32 MB RAM for 1024 x 768 screen mode, and recording software such as "NERO" by Ahead Software. Second, we need all the above plus the items below for Video:

A DVDR optical drive, an input device such as ADS' Instant DVD (USB input) or equivalent for recording from VHS tape, and a VCR. A fire wire input card can be used if you are recording from a digital camcorder (DV).

To record data and sound on DVDs is very similar to CDs, but video is different only because we use a different format. A CD may be used with this format and would hold approximately 30 minutes of mpeg2 (MP2) video. This CD would be called a "VCD" (Video CD) and would be played on a DVD Player.

There are several different video formats such as WMV, MPE, MPG, MP1, MP2, MP4, etc. MP1 (352x480) is fine for B&W video, but size and quality is too low for color. MP2 (720x480) is the most common format used at this time for doing

video DVDs. MP2 can be recorded in low (3382Kbits per sec), medium (5073Kbits per sec), and high (9716Kbits per sec) quality.

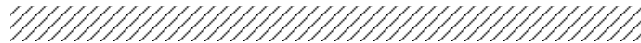
Before you start recording video, you may want to shut down all the programs running in the background to gain the maximum amount of System Resources in order to acquire the greatest performance when recording video. You will use 4 to 20 GB of your hard drive for recording a two hour video depending on the format you use.

“NERO” (Version 6 or 7) is the cheapest way to go for software. This program will do just about everything for you (two hours plus on DVD, some editing, excellent recording). I also have used “My DVD v4 or5” by Sonic (easy to use, some editing, up to 1.9 hours on a DVD), “My DVD v6” by Sonic (up to 3.5 hours on a DVD, but SONY players do not like the recording format), “Premiere Elements” by Adobe (easy editing is great, but recording is only good for one hour, jumps around with movement and going more than one hour really destroys it by also getting choppy), “Movie Factory2” by Ulead (not bad, but very time consuming and hard to use, 1.9 hours on DVD) and “Studio Plus 10” by Pinnacle (very demanding, needs more memory and high quality video card; very hard to use!).

I am using an INTEL P4, 3.06 GHz, 512 MBRAM @ 800 MHz, GeForce FX5200 128 MB RAM video card, and a Digital Research model DDVD116DL (DVD Recorder with NERO software), an ADS Instant DVD VHS input device, which converts the analog video to digital Mpeg2 format via a USB port, and an IEEE firewire port for my DV Digital Camcorder.

There is no restriction against any nonprofit group using this article as long as it is kept in context with proper credit given the author.

The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you.



## **Tips And Tricks For Enhancing the PC Visual Display**

by Bonnie L. Snyder,

Pikes Peak Computer Application Society, CO

February 2012 Bits and Bytes <http://ppcompas.apcug.org>

BonnieLS21 (at) gmail.com, - <http://tvvip.org>

If you are in need of assistance in seeing the screen on a PC, there are several options available to help you do this. If you are using Windows 7, for instance, there is a built-in screen magnifying program that is head and shoulders above the one in Windows XP. You can run it at any time (provided your video can use the Win 7 Aero display) by pressing Windows key and then + on the keyboard. Pressing Windows key and then - will reduce the size. Once you are in the magnification program, you can set up the program with the options you want.

To do this, go down to the taskbar and click on the magnify icon. A window will open toward the top of the screen and an icon that looks like a “gear” will allow you to choose your options, including having the magnification load automatically at startup. You can change options on the fly by using Windows key - L for Lens mode, Windows key - D for Dock mode, Windows key - F for Full screen mode.

An interesting freeware program you might want to try is aRuler for Windows. It works under Win XP and Win 7. Initially it loads a ruler that you can use to help focus on the line of text you wish to read. It is configurable in length, and the ruler’s visual display can be changed to the user’s preference. It also includes a screen magnification option from 1X to 4X. < <http://www.arulerforwindows.com/> >

One of the things that can cause visual fatigue when reading on a computer screen is the brightness of the display. There is a freeware program called Tinted Window which works in both Win XP and Win 7 that can mitigate this problem. Once loaded (it is a Java executable so it doesn’t install), Tinted Window comes up in a small window. Right-click on that window and you can set up the color of the tint you wish. The window also allows for full screen or just a lens. < <http://www.softoxi.com/tinted-window.html> >

A quick and easy way to magnify the information on the screen is to hold down the Control key and roll the mouse roller forward. The more you move the roller forward, the larger the display will be. This feature does not work in all programs, so you’ll have to just try it for each one. Interestingly, in Firefox, the most recent magnification done this way is “remembered” so that when initially magnified with the control key, mouse roller, it will be already magnified. You can lower the amount of magnification by rolling down. This feature works in both Windows XP and Windows 7.

DisplayTuner (Dtuner) is really nice freeware for adjusting many facets of video and audio. When you run it (after installation), an icon remains in your system tray so that you can access it any time you want to make the video display better for the comfort of your eyes. Again, this program works in both Windows XP and Windows 7. < <http://bit.ly/yJcvO6> >

Is that mouse cursor just too small? Well, Bigger Cursors can solve that problem. This is another freeware. All you have to do is unzip the cursors into the Windows/Cursors folder and then select the one you want via the Control Panel/Mouse listing. Once chosen, the cursor will remain that way until you wish to change it. This program works in both Windows XP and Windows 7. < <http://bit.ly/xDcXRv> >

(This article is provided by APCUG to members for publication in club newsletters with no editing.)

# Help Lines

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## AdvisorNo.

## SOFTWAREHELP

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Installing Software after Reformatting	5
Deleting Files; Wiping	6

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Contact: [webmaster@toggle.org](mailto:webmaster@toggle.org)

TOG is hosted by Parcom Web Hosting. The TOGGLE subscription may contain up to 70 subdomains at no extra charge. Members may upload and edit their own pages, or have the TOG Webmaster do it. The TOG Webmaster will work with members on the design of their personal web page. While many web hosts do offer free website hosting, they are limited to 20 MB or so. Web hosting for more than 20 MB averages around \$5 per month. That's \$60 per year, while a TOG membership is only \$24 per year. So hosting your web page on TOGGLE can be a considerable saving.

## ADVISORS

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[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

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### Tacoma Open Group for Microcomputers (TOG)

#### New Member Application/Existing Member Change of Address Form

For **Tacoma Open Group** annual membership, send form (if needed) & **\$25** to Bob Henkel., 10613 25th Avenue E., Tacoma, WA 98445.

Make checks payable to TOG

Please print or type. Date: \_\_\_\_\_ Sponsored by: \_\_\_\_\_

Member's Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zipcode: \_\_\_\_\_ Plus Four \_\_\_\_\_ Country: \_\_\_\_\_

Home Phone: (\_\_\_\_) \_\_\_\_\_ Work phone: (\_\_\_\_) \_\_\_\_\_ E-Mail Address \_\_\_\_\_

**TACOMA MEETING**

When: **Mon 11 June 2012 -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

**Corporate Sponsors:**

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[www.rm-a.com](http://www.rm-a.com)

**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!



**Tacoma OPEN Group for Micros**  
**1808 Lenore Drive**  
**Tacoma, WA 98406-1920**

**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.

Although no formal program presentation has been scheduled for this month lively discussions of computer-related problems are sure to break out and involve animated discussions. Surely you won't want to miss these discourses and are even eager to participate in them. Come and join the fray!