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The Digital

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## Twin Cities

PC USER GROUP

NEWSLETTER

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*TC/PC Exists to Facilitate and Encourage the Cooperative Exchange of PC Knowledge and Information Across All Levels of Experience*

**February 2012**

**General Meeting:  
Tuesday, February 14, 7PM**

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## General Meeting

**Tuesday, February 14, 2012  
at 7:00 PM**

### Downloading from YouTube

**Location: Summit Place  
8505 Flying Cloud Drive  
Eden Prairie, MN 55344**

New Dynamics of the Music Industry: Today's artists are now giving away their top releases as YouTube videos. Most artists are making a mere \$.03 -- YES that is 3 cents -- per iTunes download. Very top contracts with iTunes are only for 10 cents tops. The artists are fighting back and the battle field is YouTube. Las Vegas Style presentations are yours free for the taking. If you are a Country Western fan and have not seen the great video from Alan Jackson and Jimmy Buffet; "It's 5 O'clock Somewhere," this meeting is for you; the video is free for the taking.

Today's artists are experimenting and using YouTube to drive fans to their websites to buy from the Artist's store or to promote their concerts where they cut out the recording industry entirely. They make fortunes doing these multi city concerts. Some of these videos are HD with high quality sound and it is yours free for the download. The results on modern hardware are outstanding!

Did you see the Chrysler Ad in the Super Bowl? If you missed it, the HD version with studio quality sound is yours free for the download. That one has already been downloaded almost 6,000,000 times in just the first 4 days since the Super Bowl. The Volkswagen ad has been downloaded almost 10,000,000 times, and the Honda commercial almost 15,000,000 times . . . so why are you missing out? Grab these free for the taking and show them to your friends at your leisure. . . Impress your friends and family!

OK how do we do this ? Members Jack and Jim will present the tools needed to do this, from Firefox addin "Video Download Helper" to VLC media player tips and tricks. Should I use Windows Media Player? Jack and Jim will present some of their favorites from YouTube. Bring your friends to see the very best of what's free from YouTube and how to get it downloaded for on demand enjoyment! 

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Application form inside back cover

# Last Month's Meeting: Adobe Reader X and Electrical Outlet Adapters

By Sharon Walbran, SQWalbran (at) yahoo.com

Jim Grotz and Jack Ungerleider showed us the latest version of Adobe Reader, version X or 10. Some of the new features of this version are the ability to add comments in-line in a PDF document, to highlight text, and the ability to add a signature as a JPEG image to a form. The interface has improved and the program, still free, is faster and easier to use. You are able to save most PDF documents to your hard drive. New security features allow you to open a file in Protected Mode, in a sandbox environment, so that the document cannot contaminate your system. If you've switched to a different PDF reader, it may be worthwhile to look at Adobe Reader again.

Curt Trout brought a bag full of a variety of different outlet adapters in shapes like hexagons to make it possible to plug in a number of devices including small bricks using a simple duplex outlet. Curt demonstrated the advantages and requirements for grounding of the various adapters. These outlet adapters as well as a telephone, great for using with Magic Jack Plus, were part of the ten-item prize giveaway at the meeting—almost a 50 percent chance of winning a prize!

Jim Grotz proposed, and the members voted to adopt, the idea of purchasing an adapter at a very reasonable price that would add improved sound projection to the built-in system at Summit Place. Plans were to make these changes as soon as possible.  [Back to Page 1](#)

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## DO YOU “YOUTUBE”?

By Elaine Szaniszlo, Editor, Northeast Ohio PC Club, December 2011 issue, Nybbles & Bytes, [www.neopc.org](http://www.neopc.org), [water\\_colors@sbcglobal.net](mailto:water_colors@sbcglobal.net)

I had always thought that YouTube was a site that had lots of fun videos. Well, it does, but read on!

I was on a trip recently and the fuses blew on the car power outlets. We needed to replace the fuses as our plug-in GPS would not work otherwise. Of course, everyone knows the fuse box is located under the dashboard, right? But did you know some cars have another fuse box under the hood? We found that out on youtube.com. We typed in the car make, model and year, and fuse box, and up came a very nice video showing where the fuses were in the engine compartment, how to get the cover off and showed there was a fuse puller included (a very useful tool, indeed!). Now we would never have known that.

A friend told me he was going to replace a garbage disposal. He went to YouTube. Again, there was a detailed video explaining how to do that. Other ambitious folks I know have used YouTube to get videos on repairing clothes washers, too.

I used YouTube once to get some cooking information, but never realized the wide scope of informative videos that was available. So the next time you want to solve a problem or get information on any do-it-yourself project, check out YouTube. It may make YOU happier. 

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# Windows Live SkyDrive: An Office in the Cloud

By Nancy DeMarte, a member of the Sarasota PCUG, Florida, December 2011 issue, Sarasota PC Monitor, [www.spcug.org](http://www.spcug.org), ndemarte (at) Verizon.net

A quiet, steady evolution is taking place in the data storage world. Soon CD's and external hard drives may be replaced by storage on the Internet, or, as we say, the "cloud." In this era of mobile devices like smart phones, laptops, and tablets, it is natural for us to want to have access to the files and photos on our base computer when we are in some remote location. SkyDrive is Microsoft's password-protected, free online storage area, complete with abbreviated versions of popular Microsoft Office programs for editing the stored files. It is also equipped for sharing files with others and is a convenient way to transfer files from an old computer to a new one. Microsoft Office users should get to know Windows Live SkyDrive as a solid option for online backup.

Online storage has been around for awhile, primarily purchased by businesses as a backup for large amounts of data. Carbonite, for example, is a well-respected online storage company popular with businesses which also offers a package for home clients. The home client pays an annual fee of about \$60 per computer to upload user-created files to a secure spot. Free online storage is not as common, but Google and Microsoft are competing for the title of most popular free cloud storage. I have used Microsoft's SkyDrive for a couple of years and have found it to be a user friendly, flexible service with many good features and being updated all the time.

## Windows Live

Before we explore how SkyDrive works, let's take a minute to review the concept of "Windows Live," of which SkyDrive is a part. Microsoft has been reworking the "Live" idea since 2005. It is a group of online services and software downloads which complement Microsoft's operating systems. When Windows 7 was introduced, several applications which had been part of earlier Windows versions were removed, among them Windows Mail and Photo Gallery. Instead, Microsoft offered a suite of programs and services called Microsoft Live Essentials and made it available for free downloads, as long as the person joined the Live community with a username and password. (I have belonged for years and have not received spam as a result.) Users can choose the programs they want from a long list. Many of these are online services, such as SkyDrive and Hotmail. Others are downloadable programs, such as Windows Live Mail and Movie Maker. All are free. Microsoft has announced recently that Windows 8 will have the Live Essentials package included with the system.

## SkyDrive: Free Storage

SkyDrive lets a Microsoft Office user add Word documents, Excel spreadsheets, PowerPoint presentations, OneNote documents, and photos to a password-protected place on the Internet at [skydrive.live.com](http://skydrive.live.com). You can add a single file up to 100MB in size and can store a total of 25GB at no charge. These limits were recently raised, and the prediction is that storage space on SkyDrive may be unlimited very soon. Isn't competition great?

To add files to SkyDrive, you must first create a free Live account, then log on to SkyDrive and create folders to hold your files. You then select the files, including photos, from your computer and upload copies of them into these folders using an easy-to-follow wizard on the SkyDrive home page. You can even upload a whole folder at once as a local zip drive. Next you set permissions for each folder using a simple slider and folksy categories: Everyone (public), People I selected, People with a link, or Just me.

Once files are in SkyDrive, they can be deleted, organized, and renamed. Plus, they can be edited with the Office web apps, mini-versions of Office programs located on the SkyDrive home page, using any version of Office back to 2003. If you have Office 2010, you can open a file that you have stored in SkyDrive in the appropriate web app, and then click the "Open in ..." button to open it with your full version of program on your computer. If you have an earlier version of Office, you can download a plug-in program from Microsoft that allows you to open a file with your full program. I tried this on my laptop with Word 2007, however, and found it cumbersome. I guess they want us to buy Office 2010. As a workaround, you can always download a file from SkyDrive to your computer for full editing capabilities.

## Sharing Files

If you want to share a file, whether an Office file or a photo, on SkyDrive with someone, you can either send him a link or set the permission so he can view and/or edit it. I experimented by sharing a Word 2007 document with a friend who is not a member of Windows Live. In SkyDrive, I highlighted the file I wanted to send. From the Sharing menu, I clicked 'Send a Link'. An email message opened ready to address. It contained a link to the file with a spot for me to type a message. My friend received the message with no problem and merely clicked the link to go directly to the folder on SkyDrive. She now has permission to view documents in that folder.

Currently, the only Office web app that allows for shared editing is Excel. This involves editing a spreadsheet in SkyDrive with selected people. Names of those working on the file at the same time show up in the toolbar.

SkyDrive is greatly improved from its predecessor, Windows Live Workspace. I would expect it to get even better as the competition heats up with its rival Google. The reviews show that although Google made a huge push a couple of years ago, with its array of services like Google Apps and Google Calendar, Microsoft is catching up. Its latest version of SkyDrive, plus two new related synchronization services, Live Sync and Live Mesh, are a good start. Microsoft now offers 25 GB of free storage compared with Google's 1 GB (although there is the option to purchase more). If you are a Microsoft Office fan, then you can't go wrong by giving SkyDrive a try.  [Back to Page 1](#)

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## Streaming Video Presentation by Mike Kaltschnee

Meeting review by Richard Corzo, President, Danbury Computer Society, CT, November 2011 issue, DACS.org, [www.dacs.org](http://www.dacs.org), [dacsprez \(at\) dacs.org](mailto:dacsprez@dac.org)

Perhaps you've heard of people "cutting the cord," getting rid of their cable or satellite TV subscription, and relying on the Internet to watch television programming. Maybe you just want to catch up on episodes that you may have missed, or be able to watch Movies that aren't available from your cable or satellite provider.

Mike Kaltschnee explained the options, both services and devices you can hook up to your TV. He is well known for his web site [www.HackingNetflix.com](http://www.HackingNetflix.com). So of course he mentioned Netflix, which has both a video streaming service and DVD rental by-mail service. The streaming service seems to be available on every TV, Blu-ray player, and game console; along with all the streaming devices he showed us, and a Windows PC or Mac.

Hulu and Hulu Plus is another service featuring mostly TV programs, and come in both free and paid versions. Amazon offers streaming through its Amazon Prime offering, as well as a huge selection of video on demand titles. HBO Go is available only to HBO cable subscribers, but lets you watch shows on portable devices and selected set-top boxes.

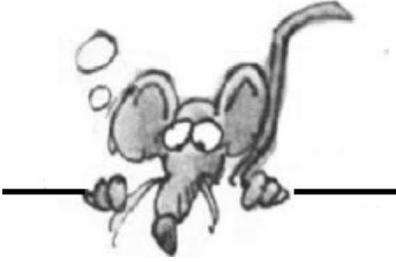
Blockbuster is similar to Netflix in offering both streaming and DVDs by mail. However, the streaming option for now requires a Dish satellite subscription. You can select from the various options based on the service's selection of titles, price, how often you watch, and what devices they support.

To find where particular titles may be offered, Mike mentioned TV Guide (<http://www.tvguide.com/>), Fanhattan (<http://www.fanhattan.com/>) which has an iPad application and will soon offer a website guide, and clicker (<http://www.clicker.com/>), the "Internet Television Guide."

To watch Internet TV on your television, you could hook up your Windows PC or Mac with an HDMI or VGA cable, or use your game console. Your TV itself or Blu-ray player may offer some of these services. You might also want to watch TV on your portable devices, phone, iPad, etc.

Finally, there are dedicated streaming boxes such as the Roku, Boxee, Apple TV and Google TV. A TiVo combines a DVR with an offering of Netflix, Hulu Plus, Amazon Video on Demand, and Blockbuster.

The Sony Dash was an interesting device I wasn't familiar with, and has a built-in screen. So there are a lot of options, and we're no longer limited to cable or satellite TV.  [Back to Page 1](#)



# NIBBLERS

By Jeannine Sloan

## NIBBLER NUGGET

The principles of universality of access irrespective of hardware or software platform, network infrastructure, language, culture, geographical location, or physical or mental impairment are core values in Web design. <http://www.w3.org/DesignIssues/old/Architecture.html>

## White Spaces Will Come Online Next Month

White spaces brings with it tons of potential for new devices and applications. It is faster than WiFi so it can handle more data. It can bring (nearly) free Internet access to the most remote areas of the country, places that can't get WiFi. When can we get it? Read the complete article here: <http://www.businessinsider.com/a-new-form-of-wifi-is-coming-and-its-good-news-for-many-americans-2011-12>

## How to Properly Clean All Your Gadgets without Ruining Them

Your gadgets aren't as resilient as they might seem, and just spraying Windex on everything and rubbing it down with a paper towel can cause all sorts of damage to a device. However, they are remarkably easy to clean as long as you do it right—and you can do most of it with just a few simple household items. Here's how to do it.

<http://lifehacker.com/5875667/how-to-properly-clean-all-your-gadgets-without-ruining-them>

## How to Unlock GodMode on Windows 7, 8

God Mode is a cool feature. You control your windows PC then you control everything, hence its known as God Mode. Here is the trick which will help you to Unlock the 'GodMode'

**Step 1** – Right click on desktop to create a new Folder.

**Step 2** - And then rename the folder to the following (without quotes):

"GodMode.{ED7BA470-8E54-465E-825C-99712043E01C}"

After renaming the folder, the folder's icon will change to resemble a control panel and will contain dozens of control options. Double click it and open it, now you are the God of your system.

<http://www.technobuzz.net/how-to-unlock-godmode-on-windows-7-8/>

## Add Calculator to Excel's Quick Access Toolbar

In Office 2007 click on Office button and open Excel Options.

In Office 2010, click File >> Options.

Click on Quick Access Toolbar from left sidebar.

Now, expand 'Choose Commands From' menu and select "Commands Not In The Ribbon".

It will show you a huge list of applications and commands available to add to the Excel Quick Access Toolbar. Find Calculator and Click on Add button. Click OK.

## Customize IE8 or 9

If you have XP you will want to be using IE8. For Vista or Windows 7 users IE9 is the current choice. In either of these browsers: right-click the upper edge of the active browser window to access the list of items available via a popup menu. Click to place a check mark beside the options you want to be visible: Menu bar, Favorites bar, Command bar, Status bar, Show tabs on separate row, etc.

## Acronyms

BIOS is the Basic Input/Output System

UEFI is the Unified Extensible Firmware Interface, essentially the next generation of BIOS.

## Near Future Technologies

1. Wireless docking of mobile devices
2. Inexpensive mobile broadband everywhere
3. Three dimensional printing
4. HTML5 to make the web an app
5. Flexible OLED displays Read the whole article here: <http://tinyurl.com/6y596lr>

## Tracking Protection in IE9

IE9 has a feature called Tracking Protection. To enable tracking protection click on the settings button, select Safety|Tracking Protection. This will open the manage add-ons page, where you control and customize the tracking protection feature. Watch a short video to see what it does at this site. <http://tinyurl.com/3rxruul>

## How to Create a Desktop Wallpaper Slideshow in Windows 7

You can easily create a wallpaper slideshow using the Windows 7 Personalization settings.

1. Right-click an empty part of the desktop and choose Personalize. Windows hops to the Control Panel's Personalization pane.
2. In the lower-left corner, click the Desktop Background link. You'll see the Desktop Background window.
3. Hover the mouse over any picture you want to include in the slide show and then select the check box that appears. The box will appear in the upper-left corner. You can choose as many pictures as you want.
4. Select all the images you want to include.
5. Select the Shuffle check box if wanted.
6. Set the speed of the slide show in the Change Picture Every box
7. Choose how you want the pictures to appear in the Picture Position drop-down list.
8. Click the Save Changes button and then the Close (X) button.

Detailed instructions are here: <http://tinyurl.com/6opgsa7>

*Thanks, Jeannine, for this treasure trove of tips.*

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# LXDE

By Cal Esneault, President of the Cajun Clickers Computer Club, LA and leader of many Open Source Workshops & SIGs, November 2011 issue, Cajun Clickers Computer News, <http://cccclinuxsig.pbwiki.com>, [www.clickers.org](http://www.clickers.org), ccnewsletter (at) cox.net

The Linux OS (Operating System) permits users to select from many front-end desktop environments (the interface software that controls mouse, touch screen, icons, etc.). Popular interfaces such as GNOME and KDE are powerful but can require high system resources. LXDE (Lightweight X11 Desktop Environment) is a simpler approach more suitable for netbooks, mobile devices, or older PC's. It is designed to be faster, more energy efficient, and be a better fit for the future of "cloud" computing. Since LXDE open-source software is based on X-windows, the commonly used system and network protocol that provides the basis for graphical user interfaces (GUI's), it can be used with all the popular Linux and BSD distributions (distro's) – Ubuntu, Fedora, OpenSUSE, Debian, etc.

LXDE originated as PCMan in 2006 by Hong Jen Yee with the file manager PCManFM as the first component.

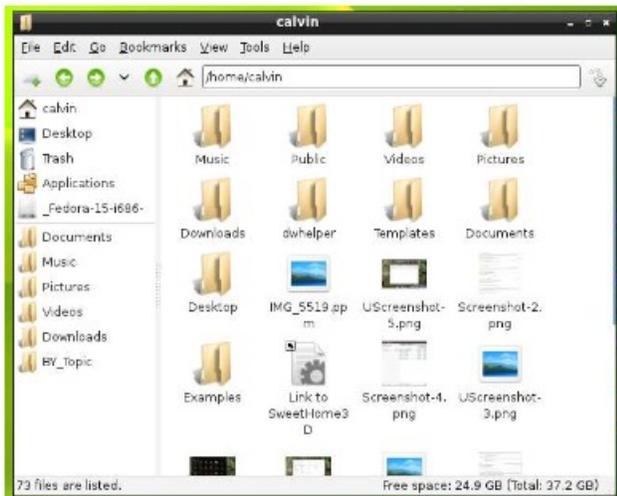
This community backed distro with OpenBox as the window manager has risen rapidly in popularity.

In May 2011, Lubuntu (the Ubuntu derivative using LXDE) was made an official Canonical distro and has surpassed the KDE-based Kubuntu in active downloads. On my system which has Ubuntu 11.04 as the main OS, I downloaded the LXDE desktop (see screenshot below).



Note the traditional tree-and-branch menu system arising from the bottom panel. This reminds me of the older KDE 3.x family. There are no extra "widgets" or desktop panels now common in current KDE 4.x releases. Also, there are no side panels of "tiles" and pop-out icons present in the newer Unity or Gnome 3.x desktops. LXDE has a simple, clean interface which should be comfortable for traditional users, such as those familiar with Windows XP.

Below is a screenshot on my system using the PCManFM file manager:



Since I also have Gnome 3.x and KDE 4.X programs on my system, I have access to all of them through LXDE. If you want to have a less sophisticated system that runs on older equipment with minimum software overhead, do a fresh install of a dedicated LXDE distro.

For example, a Pentium II processor with 256 MB of ram that was used for Windows 98 could work, or a later 600 MHz Pentium III with 512 MB of ram should run well. Several major distro's provide a wide choice for your selection. For instance, the software provided by Lubuntu includes (among many others):

- GPicView (photo viewer)
- Leafpad (text editor)
- LXTerminal (command line access)
- OpenBox (window manager)
- PCManFM (file manager)

Most distro's also have versions to work with their latest versions. For example, Lubuntu 11.10 will be offered as one of the versions to be released this October. Check all this out at the LXDE.org website. [Back to Page 1](#)

Meetings start at 7:00 PM (9:00 AM on Saturday) unless otherwise noted. \*Meets at Edina Executive Plaza.

## February

## March

sun	mon	tue	wed	thu	fri	sat
			1	2	3	4 Systems on Saturday/ Word SIG 9:00-Noon
5	6	7	8	9	10	11 Linux on Saturday* 9:00-Noon
12	13	14 General Mtg 7:00 PM Downloading from YouTube Summit Place 6-7PM Web SIG	15	16	17	18 MS Office (including Access) on Saturday* 9:00—Noon
19	20	21	22	23	24	25
26	27	28	29	1	2	3 Systems on Saturday/ Word SIG 9:00-Noon
4	5	6	7	8	9	10 Linux on Saturday* 9:00-Noon
11	12	13 General Mtg 7:00 PM Summit Place 6-7PM Picture Perf SIG	14	15	16	17 MS Office (including Access) on Saturday* 9:00—Noon
18	19	20	21	22	23	24
25	26	27	28	29	30	<a href="#">Back to Page 1</a>

# USB 3.0—The Super-Speed Bus

By Andrew Petrovic, Ottawa PC Users' Group, Inc., Canada, February 2011 issue, PC News, <http://opcug.ca/public/index.htm>, opcug-webmaster (at) opcug.ca

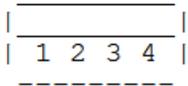
I thought that it would be a good idea to introduce to you a new and upcoming development - the USB (Universal Serial Bus) version 3.0, as this technology will become mainstream in a fairly short time. USB version 1.0 was created in 1996, but was more widely available in 1998 as version 1.1, superseded by version 2.0 in 2000. Over the next few years this will be replaced by version 3.0, already released and now being used by some consumers.

## A quick overview of USB

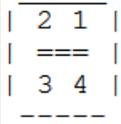
The reason that USB was created all those years ago was in order to provide an interface for computers and peripheral devices that was easy to set up and use, as well as being low-priced. Actually, the USB data protocols used are very complex, but fortunately the USB controller chips take care of these details, so users don't have to be concerned. USB is designed to be 'Plug and Play' without the user having to set up parameters such as interrupt requests, addressing, etc. as well as not having to reboot the computer after adding a peripheral.

In USB versions up to 2.0 there are only four wires that are connected: power; ground; data - and data +.

This is the 'A'-type connector usually found on a computer interface or hub:



This is the 'B'-type connector often found on the USB peripheral:



There are various other 'mini' and 'micro' connector types as well.

When we talk about USB components, we call a peripheral that plugs in to a computer port a 'device' and the port and controller associated with the port on the computer is called the 'host'.

Each device has a 'descriptor'. When a device is connected to a computer, the descriptor tells the host what kind of peripheral it is. From the product IDs it provides, the computer then knows what type of driver to load for that device. A driver is a small piece of software that interfaces between a hardware device and the operating system.

Other information passed to the computer includes the device's power requirements; protocol settings; etc. When a USB device is unplugged, the host instructs the operating system to unload the driver for that device.

As far as the user is concerned, the most important element of the upgrades to the USB technology is the increasing speed of data transfer. The following table shows the differences in data transfer speed between the versions. The theoretical speed quoted by manufacturers would, in reality, not be possible to achieve and is based upon operations that include extra packet transfer overheads, as well as a few other things. The real life actual maximum speed is likely to be between 30% and 60% of the quoted theoretical speed. Version 1.1 had two speeds, 'Low' and 'Full'. Version 2.0 just bettered the 1.1 version 'Full' speed.

USB Version	Designation	Theoretical maximum speed
1.0	"Low speed"	1.5 Mbps = 190 KBps
1.1	"Full speed"	12 Mbps = 1.5 MBps
2.0	"High speed"	480 Mbps = 60 MBps
3.0	"Super speed"	4.8 Gbps = 600 MBps

Note the difference between Mbps (Megabits per second) and MBps (Megabytes per second). There are 8 bits in one byte, so when comparing speeds take note of which terminology you are using.

### Limitations of USB 2.0

So if USB 3.0 is appearing on the market, it must be because previous versions are not able to do the job. Well, this is partly true. Version 2.0 will be able to be used for quite a lot of devices for a while, but as peripherals get faster and require faster interfaces, so USB 3.0 will become more desirable to end users. The sort of devices that are likely to require the faster data transfer speeds are external USB disk drives and components that deal with video.

It's not just speed that is a limit. Each USB 2.0 host port can provide up to 1/2 Amp (500 mA) of current to power a device that does not have its own additional power supply. Often this is simply not enough. Some external disk drives may require up to 900 mA of startup current and that is why they are often supplied with a 'Y' cable that plugs into two USB ports in order to feed enough power (for those portable drives that don't use an external power supply).

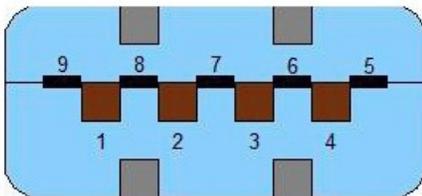
USB 2.0 data only moves unidirectionally. In other words, data can be sent to a device or from a device but not both at the same time. This cuts down the overall speed attainable.

### Introducing USB 3.0

Whereas the upgrade from USB 1.1 to USB 2.0 used the same connectors with the same four wires, the upgrade from USB 2.0 to 3.0 is very much different.

Take the USB 2.0 configuration and add another entire set of connectors to it and call it 'Super speed'. This is how USB 3.0 has been created. The original USB 2.0 wires are still in place and the USB 3.0 adds five more wires (two pairs of data wires and a signal ground cable).

This is how the 'A'-type looks (Female - Receptacle), with pins 1 to 4 being identical to the original USB 2.0 specification:



Cables and connectors are backwards compatible as well, so you can plug in a USB 2.0 device to a USB 3.0 port - you just won't get any extra speed advantages because only the USB 2.0 connectors will be used, though the power pins are the same so more available current should be available for USB 2.0 devices.

### How is USB 3.0 better?

Apart from being fully compatible with previous USB versions, the faster data transfer is quite a dramatic improvement for USB 3.0 compatible devices because of a faster clock control speed; the use of asynchronous signaling for simultaneous sending and receiving; and an interrupt mechanism that does not use the time-consuming polling that USB 2.0 used.

One area where USB 3.0 may fall down is with the length of the cable that can be used. It could be limited to 3 meters if high throughput devices are used, as compared to the 5 meter cables possible with USB 2.0.

The limitation could be overcome using USB hubs or extenders and perhaps fiber-optic cabling might be possible in the future.

### Is it worth upgrading?

USB 2.0 will likely be around for the next few years anyway, but in time newer computer motherboards will provide USB 3.0 ports as standard.

If you want to try out the technology now, there are add-on adapters available that plug in to a spare PCI-Express slot on your PC and provide two or more USB ports. There are also a few USB 3.0 external disk drives available, as well as hard drive enclosures with USB 3.0 interfaces where you can put in your own internal drive.

If you only have slow devices on your USB connections, it's no great advantage to upgrade. For example, keyboards and mice only require the slowest USB version and will not work any better on faster USB ports.

If you must have the faster transfer speeds for storage or video devices, then you should consider some form of upgrade. There are alternate interface types, such as eSATA and FireWire, but they are a less common interface type than USB and they also require a separate power line, as well as not always being 'hot-swappable'.

Other things that will benefit from the USB 3.0 interfaces are card readers and connections from digital cameras, when transferring pictures to the PC, though not when you plug in the current 'slower' devices. USB 3.0 thumb drives will be faster on a USB 3.0 interface but the current USB 2.0 thumb drives will be no faster on a USB 3.0 port. Interestingly enough, USB 3.0 thumb drives will be faster on existing USB 2.0 ports because the whole USB 3.0 flash drives had to be redesigned with faster chip access in order to take advantage of the USB 3.0 port speed.

Later versions of Windows and Linux should natively support USB 3.0 at some point. Windows XP will not, but USB interface and peripheral manufacturers should be able to supply suitable drivers for XP systems.  [Page 1](#)

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## Diskeeper 2011

By George Harding, Treasurer, Tucson Computer Society, AZ, November 2011 issue, eJournal, [www.aztcs.org](http://www.aztcs.org), [georgehardingsbd \(at\) earthlink.net](mailto:georgehardingsbd@earthlink.net)

One of the essential parts of your computer, the hard disk, is also one that can cause the computer to be unable to boot. The Windows operating system provides tools to keep your hard disk in good health. Fragmentation of files is one of the consequences of efficient space utilization. File deletion leaves portions of disk space available for use by another file, but only if the new file is the same or smaller size as the deleted file. If larger, a portion of the new file is stored in the deleted file's space, the balance somewhere else. This splitting of a file may result in a file being cut into several pieces. It takes longer to retrieve a file in this condition, than if it is stored as one contiguous piece.

Fragmentation can be reduced or eliminated by a special program that rearranges files so that each occupies only one spot on the disk. This produces more efficient file retrieval. The defragmenter in Windows can be operated whenever desired. In Windows 7, it is run every day at a specified time that can be changed by the operator. In earlier versions of Windows, though, the defragmenter must be run manually, requiring you to remember to do so.

Diskeeper uses a different approach. Its IntelliWrite feature prevents fragmentation before it occurs. When a file is saved, this technology prevents fragmentation from occurring. In the rare event that a file is fragmented, the Instant Defrag feature fixes it in the background. These operations occur without any noticeable degradation of performance. Boot-time defragmentation is a feature that can be used to defrag those files that are being used by Windows and cannot be changed while Windows is running. Instead, they are operated on before Windows starts. This may add a bit to start-up time.

You can, if you wish, manually defragment your disk, but Diskeeper does a more efficient job, so let it do its job. Sold in different editions with prices to match, the lowest price is about \$40, certainly reasonable for such a sophisticated program.

About: Diskeeper 2011

Vendor: Diskeeper

[www.diskeeper.com](http://www.diskeeper.com)

Price: \$40 and up

Requires: Works with WIN XP/Vista/7  [Back to Page 1](#)