Southern Districts Computer Users Club Inc

Supporting inexperienced users with local expertise

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Be Connected
https://beconnected.esafety.gov.au/

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MEETINGS are held on the third Wednesday of the month at 7.30 pm, in the Hall at the rear of St Mary's Catholic Church Morphett Vale. (Corner Bains Rd and Main South Rd)

Visitors most welcome.
After three visits, visitors will be requested to become members.

Cost $3 per person, which includes the Newsletter, plus coffee/ tea and biscuits.
Subscriptions for twelve months
Single $20.
Family membership $30.

Novice and experienced computer users will be warmly welcomed

Be Connected
https://beconnected.esafety.gov.au/

The Yardbroom Report
April 2018

What fun it is to be a senior citizen!! Christmas has come and gone, Easter has come and gone and it will soon be Anzac Day. Why do I mention all these holidays? Cause I can! What difference does the holiday season(s) make to the average older citizen? None. We have permanent long weekends.

Holidays are times when the volume of traffic on the roads increases and the number of children (junior adults) that frequent the shopping centres sky rockets. Should we ban all holidays? Definitely not! It is the only way that the rest of the population can get a taste of what we have every day. More power to the oldies (aka senior citizens). If you are not a senior citizen yet – wait a while, it will happen – eventually!

If you are trying to figure out where I am going with all this – stop! This is what happens when I don't have a message to pass on or a significant point to make – I ramble. It is strangely therapeutic – for me, not you. It may happen from time to time.

Tonight, Lindsay will be giving us further information on Google Photos. This is another very useful and most capable freebie from the Big G.

Enjoy the evening and brace yourselves for the school holidays.

YB

What is an ISO File

An ISO file, often called an ISO *image*, is a single file that's a perfect representation of an entire CD, DVD, or BD. The entire contents of a disc can be precisely duplicated in a single ISO file.

Think of an ISO file like a box that holds all the parts to something that needs built - like a child's toy you might buy that requires assembly. The box that the toy pieces come in does you no good as an actual toy but the contents inside of it, once taken out and put together, become what you're actually wanting to use.

An ISO file works in much the same way. The file itself is no good unless it can be opened, assembled and used.

Where You'll See ISO Files Used

ISO images are often used to distribute large programs over the internet due to the fact that all of the program's files can be neatly contained as a single file.

One example can be seen in the free Ophcrack password recovery tool (which contains an entire operating system and several pieces of software). Everything that makes up the program is wrapped up in one file. The file name for the most recent version of Ophcrack looks like this: *ophcrack-vista-livecd-3.6.0.iso*.

Ophrack certainly isn't the only program to use an ISO file - many types of programs are distributed this way.

For example, most bootable antivirus programs use ISO, like the *bitdefender-rescue-cd.iso* ISO file used by Bitdefender Rescue CD.

In all those examples, and the thousands of others out there, every single file required for whatever tool to run is included in the single ISO image. Like I mentioned already, that makes the tool really easy to download, but it also makes it super easy to burn to a disc or other device.

Even Windows 10, and previously Windows 8 and Windows 7, can be purchased directly by Microsoft in the ISO format, ready to be extracted to a device or mounted in a virtual machine.

How to Burn ISO Files

The most common way to make use of an ISO file is to burn it to a CD, DVD, or BD disc. This is a different process than burning music or document files to a disc because your CD/DVD/BD burning software must "assemble" the contents of the ISO file onto the disc.

Windows 10, 8, and 7 can all burn ISO images to a disc without using any third-party software - just double-tap or double-click the ISO file and then follow the wizard that appears.

The same logic applies when burning an ISO file to a USB device, something that's much more common now that optical drives are becoming much *less* common.

Burning an ISO image isn't just an option for some programs, it's required. For example, many hard drive diagnostic tools are only usable *outside* the operating system. This means that you'll have to burn the ISO to some form of removable media (like a disc or a flash drive) that your computer can boot from.

While less common, some programs are distributed in ISO format but aren't designed to be booted from.

For example, Microsoft Office is often made available as an ISO file and is designed to be burned or mounted, but since it doesn't need to be run from outside of Windows, there's no need to boot from it (it wouldn't even do anything if you tried).

How to Extract ISO Files

If you don't want to actually burn an ISO file to a disc or USB storage device, most compression/decompression software programs, like the free 7-Zip and PeaZip programs, will extract the contents of an ISO file to a folder.
Extracting an ISO file copies all of the files from the image directly into a folder that you can browse through like any folder you'd find on your computer.
Although the newly created folder can't be directly burned to a device like I discussed in the section above, knowing that this is possible might come in handy.
For example, let's say you've downloaded Microsoft Office as an ISO file. Instead of burning the ISO image to a disc, you could extract the installation files from the ISO and then install the program like you normally would any other program.
Every unzip program requires a different set of steps, but here's how you can extract an ISO image using 7-Zip: Right-click the file, choose **7-Zip**, and then select the **Extract To "\"** option.

How to Create ISO Files

Several programs, many of them free, let you *create* your own ISO file from a disc or a collection of files you've chosen.
The most common reason to build an ISO image is if you're interested in backing up a software installation disc or even a DVD or Blu-ray movie.

How to Mount ISO Files

Mounting an ISO file that you've created or downloaded from the internet is sort of like tricking your computer into thinking that the ISO file is a real disc. This way, you can "use" an ISO file just like it was on a real CD or DVD, only you didn't have to waste a disc, or your time burning one.
One common situation where mounting an ISO file is helpful is when you're playing a video game that requires the original disc be inserted. Instead of actually sticking the disc in your optical drive, you can just mount the ISO image of that game disc that you previously created.
Mounting an ISO file is usually as simple as opening the file with something called a "disc emulator" and then choosing a drive letter that the ISO file should represent. Even though this drive letter is a *virtual drive*, Windows sees it as a real one, and you can use it as such too.
One of my favourite free programs for mounting ISO images is WinCDEmu because of how easy it is to use (plus it comes in this portable version). Another one I feel good recommending is Pismo File Mount Audit Package.
If you're using Windows 10 or Windows 8, you're lucky enough to have ISO mounting built in to your operating system! Just tap-and-hold or right-click the ISO file and choose **Mount**. Windows will create a virtual drive for you automatically - no extra software required.
Note: Although mounting an ISO file is very useful in some situations, please know that the virtual drive will be unreachable anytime the operating system isn't running. This means it's entirely pointless to mount an ISO file that you want to use outside of Windows (like what's required with some hard drive diagnostic tools and memory testing programs).

Tips for Laptops

Make Your Own Power Plan

Windows laptops include a few preset power plans for maximizing battery life, but you can also customize your operating system's power-management features Setting aggressive targets for when the display turns off and when the machine goes into sleep or hibernate mode will help your battery last longer.

Limit Your Connection

When you aren't actively using your notebook's Wi-Fi, Bluetooth, WWAN, or other wireless connections, turn the radios off (via the hard switch, if your PC has one, or using the appropriate utility), so they don't run down the battery while they keep searching for a signal. Also, use USB-attached devices sparingly while you're mobile. .

Dim the display

A laptop's biggest battery-life-sucking component is its LCD display. To eke out more juice when you're off the plug, turn down your panel's brightness to the lowest level your eyes can stand. Most notebooks have a Function key combo—or even a dedicated hot key—for a quick crank-down. (You can also adjust brightness in Display Settings under Control Panel.)

Keep It Cool

Thanks to their small, cramped cases and tiny vents, laptops are prone to overheating. Unfortunately, using your notebook on your lap—or on top of a blanket that protects your lap from your scalding-hot notebook—can seriously stifle ventilation and make matters worse. To help keep temperatures in check, opt for a lap desk or a laptop cooling pad that won't conduct heat or block your laptop's vents.

Back Up Everything

Constant movement puts computer components at risk, and because of their portability, laptops suffer a lot more wear and tear than desktops. All of that on-the-go use increases the risk of hard drive failure, so make sure you back up the data on your laptop to an external hard drive, thumb drive, or home server on a regular basis. Portable hard drives make it easy to back up your data on the road.

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Let It Stabilize to room Temperature

When you move your laptop from a cold to a warm environment, and vice versa, don't boot up until your system reaches room temperature. Sudden temperature changes can cause condensation to build up inside the notebook case; turn it on too quickly, and the moisture could damage your system's inner components.

What is Firmware or Microcode, and How Can I Update My Hardware?

by Chris Hoffman

Firmware is a type of software that runs on a hardware device, performing low-level tasks. For example, everything from a television remote control to a computer hard drive to an aerial drone runs its own firmware. And microcode is basically firmware for your CPU.

What Is Firmware?

Software refers to the programs, application, and other computer code that runs on a device. Hardware refers to the actual physical devices. So, if you have a Windows PC, the Windows operating system and all the applications you use are software, and the PC itself and its components like the hard disk, CPU, motherboard, mouse, and display are hardware.

"Firmware," like its name suggests, is something in between software and hardware. Firmware is actually just a type of software, but it is usually programmed into memory built in to that hardware and runs at a much lower level. In the case of a PC, your motherboard, CPU, graphics processor, hard drive, mouse, and other devices all have their own firmware.

For some simple devices, the "firmware" can refer to the device's entire operating system. For example, if you have a digital camera, the camera "firmware" refers to all the software that runs on that digital camera. This includes everything from the low-level photography capturing functions to the camera's graphical operating system. Even aerial drones have firmware, which is the software that runs onboard the drone itself.

So, to update a device's entire operating system—like on a digital camera, router, printer, music player, or a GPS navigation device—you'll often have to perform a "firmware update," or download and install a new "firmware" file from the manufacturer.

An operating system seems like it should just be software, so this may seem a little inconsistent. but that's because firmware isn't a precise term. While software and hardware are fairly clear, firmware is just a type of low-level software.

Did You Know

Despite the appearance of deep isolation in the desert, the Great Pyramids of Giza are right on the edge of the city of Cairo with fast food restaurants and busy city streets a few hundred feet away from the pyramid complex. Photos that show the Pyramids with the desert stretching out for miles in the background are taken with the photographer facing away from the city and carefully framing the photo

USE *READY BOOST* TO IMPROVE YOUR COMPUTER PERFORMANCE

Back in 2007, Microsoft introduced a new disk caching feature called **ReadyBoost** that was designed to make the Windows Vista operating system a little snappier. ReadyBoost has been part of every version of Windows since then and is still part of the Windows 10 operating system. However, many people wonder if ReadyBoost is an effective tool in Windows 10.

If you're running Windows 10 on fairly standard hardware, you will find that ReadyBoost offers a **nice performance enhancement**. On the other hand, if you are running Windows 10 on high-end hardware, you will discover that ReadyBoost is no longer viable. This is because a system with an SSD (Solid State Drive) in it, is, along with newer faster hard drives, can outperform ReadyBoost, so using ReadyBoost isn't necessary. (Since SSDs are more common in the Windows 10 era, this is really the only situation where ReadyBoost is no longer as effective

Setting-up READY BOOST

(1) Insert an external USB flash drive
(2) Format USB drive using the **exFAT file system** rather than NTFS. **Fig A**
(3) In properties of the USB select ReadyBoost **Fig B**
(4) Select Dedicate this device to ReadyBoost **Fig B**

Fig A

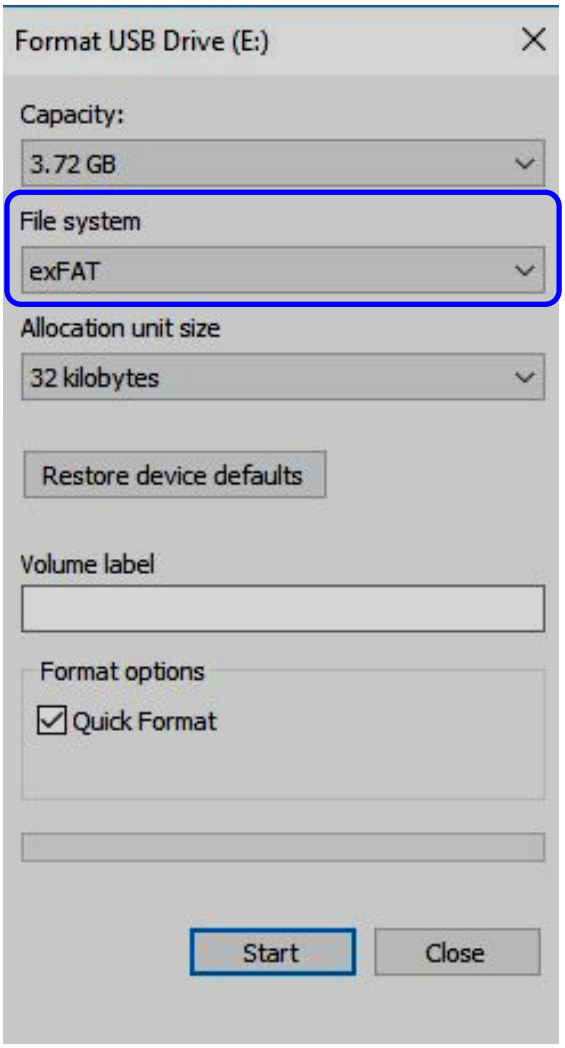


Fig B

I have found Ready Boost an easy way to make older computers run Windows 10 with very good results.

How ReadyBoost Works

To begin with, it is important to understand that ReadyBoost is essentially a helper tool for SuperFetch, a larger component built into the operating system. So let's start there.

SuperFetch is a disk cache management technology designed to enhance the operating system's responsiveness when loading and switching between the applications you use most often. Using adaptive techniques, SuperFetch constantly monitors the data and system files related to those applications and preloads them into the cache where they can be loaded into RAM quickly. To further improve performance, SuperFetch incorporates an I/O prioritization technology, in which applications are marked as either a low- or high-priority I/O application. With this system SuperFetch will temporarily sideline a low-priority I/O application when a high-priority I/O application takes precedence. Of course, this greatly improves the performance of applications marked as high-priority I/O.

While the SuperFetch cache management technology works fine while using your system's hard disk for the cache, it does fall prey to fact that a hard disk relies on physically moving parts, which can limit the speed with which data is transferred back and forth between RAM and the cache. This is where ReadyBoost comes into play. When you connect a flash-based memory device to your system and configure it as a ReadyBoost device, SuperFetch will copy its cache from the hard disk to the device and enlist ReadyBoost to assist in the cache management system. Since a flash memory device doesn't rely on physically moving parts, data is transferred back and forth between RAM and the cache much more quickly and efficiently.

However, ReadyBoost doesn't actually take over from SuperFetch; instead, they work in concert. Once ReadyBoost is enabled, it keeps tabs on hard disk operations and will only go into action reading and delivering files from its copy of the cache when doing so will boost performance. For example, during sequential read operations, ReadyBoost will allow SuperFetch to use the cache on the hard disk, since the hard disk can outperform flash-based drives for these types of read operations. During non-sequential read operations, ReadyBoost will essentially redirect SuperFetch to use the cache on the flash-based drive.

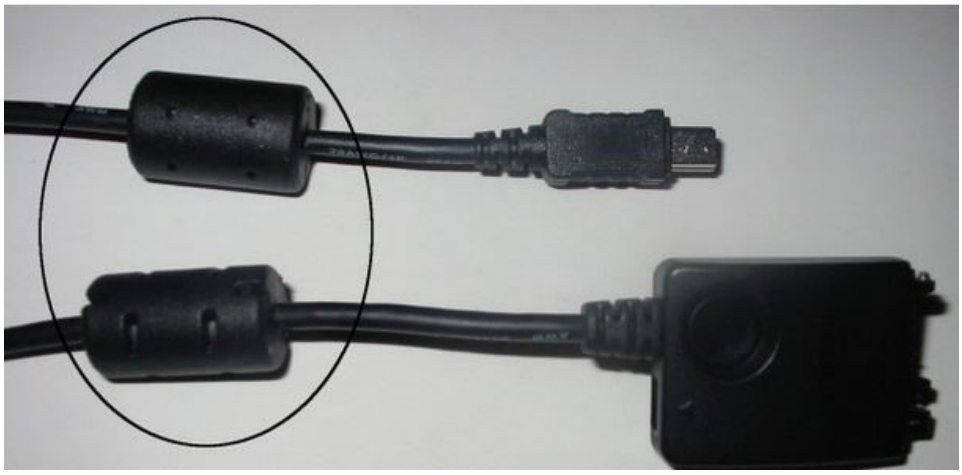
Now, there are exceptions to this system. Really fast hard disks can often perform some, but not all, non-sequential read operations faster than a flash-based drive. In such cases, ReadyBoost won't provide as significant a performance gain as it would if your hard disk were slower. However, even if you have a fast hard disk, there are situations where ReadyBoost can make a big performance contribution. So don't write it off.

To ensure the safety, integrity, and efficiency of the ReadyBoost system, Microsoft added several safeguards. To begin with, the data on device is automatically encrypted using the Advanced Encryption Standard—AES 128. So if you lose the device, you won't have to worry about someone getting access to data. While the operating system will actually work from the cache on the device, all the data in the cache is mirrored on the hard disk. Therefore, if you inadvertently remove the device while it's in use by ReadyBoost, the operating system will immediately fall back to the cache on the hard disk and pick up where it left off.

On the flip side, if your system that has an SSD hard disk in it, which is much more common than when ReadyBoost was first introduced, along with SuperFetch, can outperform ReadyBoost, so using ReadyBoost isn't necessary.

The chunky bit found on cables

Ever wondered what that cylinder-shaped lump is just before the plug on your USB cables?



They're called **ferrite cores, or chokes,** and they're actually pretty crucial. The lumps contain magnetic iron oxide which acts to suppress high-frequency electromagnetic interference.
Ever experienced that annoying sound when your phone rings close to a speaker?
The ferrite cores prevent that from happening to your computer screens and other power supplies.

This month's Tech Term

What is a Multifunction Peripheral?

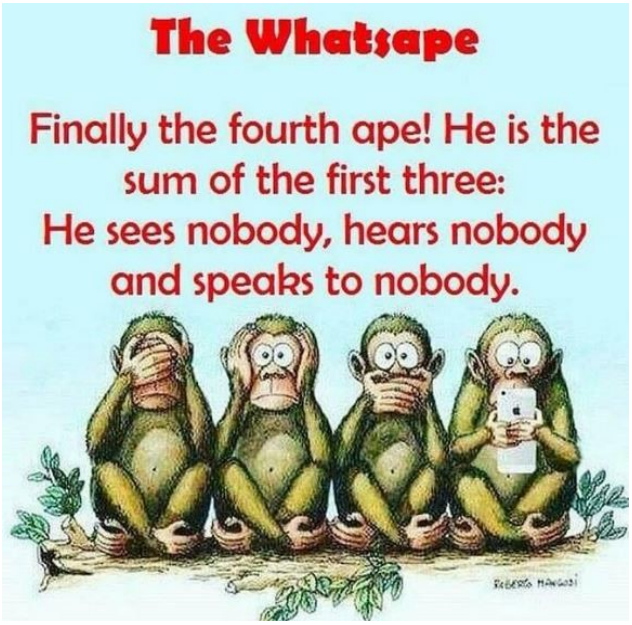
A Multifunction Peripheral is a singular device capable of performing multiple functions. An example is a computer printer that can print, scan, photocopy, and/or act as a fax machine

Foolish Predictions

Adelaide tsunami prediction by clairvoyant John Nash proved wrong, 42 years ago

It is 42 years since Adelaide made headlines around the world for surviving a tsunami which never came, the doomsday prediction made by a clairvoyant driven by religious belief.

Clairvoyant said Adelaide would face tsunami in 1976
Then premier Don Dunstan turned episode into political theatre
Many made a joke of the doomsday prediction
John Nash said he had a vision that Adelaide would be wiped out, partly because South Australia was leading the nation on homosexual law reform.
Then premier Don Dunstan turned the issue into political theatre at the forecast time of the "tidal wave" by heading to Glenelg beach and promising to hold back the giant wave if it arrived.
"People were quite worried that indeed this would happen," a government press secretary of the era, Russell Stiggants, told 891 ABC Adelaide.
"[Don Dunstan] went down to assure everyone that it wouldn't happen. He ended up on the balcony of the Pier Hotel, waving to the masses below because theatre was as much politics to Don as politics was.
"He was in his safari suit and enjoying every minute of it. He was just chuckling throughout the whole episode."
Media teams from interstate and even overseas arrived in Adelaide to report on the bizarre prediction and the reaction from locals, some of whom even sold up property because of their fears.
News reports from the time said fears spread among groups such as non-English speaking residents who did not understand what was being reported in some media.



The hole in a saucepan handle

While it's obvious use is to hang it up on a rack, there is another handy reason why most saucepans feature a hole at the end of the handle.

The hole serves a double purpose. You can use it to prop up your wooden spoon

What is Optical Image Stabilization?

Optical Image Stabilization (a.k.a. Image Stabilization) is a hardware feature built into digital cameras and other digital recording devices that compensates for (smooths out) shakiness or vibrations when taking a photo or recording video footage

Q. Name the town in South Australia formerly known as Port Henry.

A. Google the answer

Bonus point if you have over indulged in the Bakery.

Tonight's Topic

GOOGLE PHOTOS REVISITED

to be presented by Mr. Lindsay Chuck

MEETING RULES

We are allowed to use the facilities at the Hall at the rear of St Mary's Catholic Church Morphett Vale. (Corner Bains Road and Main South Road) in return of a small fee plus respect for their property. We ask for your co-operation in respect to the above. While we can not control what our members do away from our club meetings, Piracy of copyright material can not be condoned at our meetings.

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