

Computing Basics

Hardware

Having monitor issues? Change cable, use monitor on different computer. (Actually many hardware components should be tested first on other computers before reporting)

If you bought a new device and it's not working properly, RMA the defective product.

Max supported RAM for a 32 bit windows installation is 4gb

Using a normal vacuum to clean your computer free of dust can cause damage

Everyday computing (email, browsing and office apps) rarely uses more than 6GB RAM

Hardware does not slow down over time. A format and reload will always make your computer fast again.

For typical home users, if you already have more than 8GB then adding RAM will rarely make your computer faster.

Workstations should be retired every 3-5 years.

If you have a computer that won't boot sometimes turning it off, turning off and unplugging the PSU, and then holding the power button for over 10 seconds will fix it.

A computer needs to be cleaned on a regular basis, and many shops will do this as part of a "tune-up" service if you're unwilling or able to do it yourself.

Get a UPS for your Wireless Router and cable-modem.

Get a UPS for your desktop computer. Your Laptop is a UPS.

Replace your 20 year old power strip. Now.

Laptops should be picked up by the base, and not by the screen.

Laptops suck cold air in through the bottom. If you're using the computer in bed, keep it on a tray or similar, as a duvet or pillow will "choke" it.

Once in a while restart/shut down your computer, especially if you have windows update enabled. It will allow your computer to install the updates and remove unnecessary files.

When power cycling hardware (unplugging from wall and then plugging back in) always wait at least 10 seconds before plugging back in.

Networking

Having internet issues? Check the same issues on other devices in the network.

2.4GHz is slower but has better range. 5GHz is faster but less range.

When encountering connectivity problems right click on the "Network Internet access" icon in the notification area and select "Troubleshoot problems".

Internet & Internet security

Don't open attachments that are unexpected.

Don't allow remote connection to your computer to anyone you don't know or trust.

Always use an adblocker like ublock origin, it may save you from accidentally installing malicious software.

Alt-F4 is the shortcut to close a window - useful for unwanted pop-ups.

Clicking unknown links during a google search is a very common way of being infected with malware.

Never reuse passwords -- consider using a password manager.

There are 8 bits to a byte. Therefore, 100 Megabit per second (Mb) equals to 12.5 Megabyte (MB).

Don't log into accounts on computers you don't trust as they may be infected and steal your account details. Think about PCs in internet cafes and other public locations.

Don't save your passwords on unknown computers either.

Enable 2-factor authentication on your accounts (where possible) to improve security.

Don't include personal information in your passwords (date of birth, your name, etc).

Using something like "Chinese_llama_fridge_transporter" as password is easier to remember, longer, harder to randomly guess and harder to brute-force than "W@chtw00rd" or other random character combinations.

You can close browser tabs and it may help make your computer faster.

Browser extensions frequently make the browser slower.

You do need an antivirus, even if you think you're "good with computers". Windows has one built-in, however, so an extra one is unnecessary.

Prefer HTTPS over HTTP when browsing the web.

Don't submit credit card details over unsecure connections, i.e. HTTP. If a site asking for your CC info is unsecure, you're better off not using it in the first place.

Never tell anyone your passwords, not even people claiming to be employees of Google, Microsoft, Apple, or any other major company.

Microsoft will never call you on the phone for any reason.

Software, maintenance & malware prevention

Using auto driver updaters can cause damage to your operating system and is not recommended.

[See here](#) for our stance and instructions on drivers

Office and Windows versions do not have to match.

Format and reload is always more thorough and often faster than manually trying to clean up a messy infection.

The built-in reset tools are not a full reinstall of Windows. [See here](#) for a guide to do a proper clean install.

Defragging your drive is an outdated and unnecessary ritual. Modern operating systems will avoid disk fragmentation automatically.

Bundled software is typically inferior to the built in Windows features (Photos, Wifi management, anti-virus, etc). You do not need it and can uninstall it.

Keep all of your software up to date.

A full reboot/restart fixes more issues than you'd imagine.

If you don't know what a setting does, you likely shouldn't be touching it.

WinDirStat is a good way to see which files are filling up your hard drive.

You shouldn't touch anything in the C:\Windows folder unless you know what you're doing.

You should never touch anything in the registry, including using registry cleaners.

System cleaners and optimizers can do more harm than good, and often don't increase performance at all.

If you see a file and you didn't make it, don't delete it unless you're 100% sure it's not important.

Software security becomes practically useless once an attacker gains physical access to a device.

You don't need to update your BIOS unless you're 100% certain that the current version is the cause of your problems. If possible, let a professional do it because quite a lot could go wrong.

If your computer crashes, try undoing the last thing you did to it via system restore.

If you don't have a clear, absolute understanding of what any program does and how it will be useful to you, don't run it.

Same applies to other files which could alter your system configuration, common formats of which include: .bat, .ps1, .vbs, , .js, .reg and .cmd.

Enable showing extensions in File Explorer. This will allow you to identify malware using the double extension trick (e.g. "filename.jpg.exe").

Always uncheck any "additional offers" that programs may offer during installation. They're usually garbage that will bog your system down.

If a computer is constantly restarting, go into the Control Panel/System/Advanced System Settings/Startup and Recovery/System Failure and uncheck "Automatically restart" so you can see the error that's causing it.

Data security

You should backup your data. [Here](#) is our backup guide.

A backup stored on the same drive doesn't count as a backup! Upload them to a cloud service or on an external HDD/network drive.

Not backing up your data is planning to lose your data. Data loss is rarely predictable.

Buying

The less you spend on a new computer, the more likely it is to be slow/break.

Power supplies are important, don't cheap out on them. [Here](#) is a buying guide for power supplies. Buying a cheap power supply can damage the rest of your hardware.

There is zero additional risk in buying refurbished products that are under warranty, and they cost a lot less. It's a good idea.

Please research specs before buying a PC/laptop, just because it was released this year does not mean it's blazing fast, there is such thing called "entry level". If it's cheap, understand it may be slow.

Misc

The key between CTRL and ALT on most keyboards is the [Windows Key](#).

Many keys have more functions. The "Shift", "Ctrl", "Alt" and "FN" keys can each make a key do a different thing.

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