# A Beginner's Guide To Speed Up Your Windows 10 Computer

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#### Introduction

A common issue that customers require to be fixed is that their computer runs slow and is sluggish. It may take ages to start-up, or take ages for simple applications to start. This tutorial is a basic computer repair guide for Windows computers, and it applies to Windows 10 for computers that are slow and sluggish.

#### **Uninstall Unnecessary Programs and Applications**

If you have a lot of unnecessary programs and applications, they may start or have services that start on computer startup. This takes up memory and CPU usage during start up, and the more applications, programs and services that start usually the slower the computer takes to start. To go through the programs and applications installed on your computer follow the steps given below for a default Windows 10 setup.

- 1.) Click on the Windows Button (Bottom left of screen on the toolbar, usually represented by four squares (the Windows symbol).
- 2.) Click on Settings in the pop-up menu.
- 3.) The Settings window will pop-up, click on "Apps" button.
- 4.) The Apps and Features section in Settings will appear, listing the applications and programs in the Settings window. Go through each application and program and if the application is unnecessary, such that you don't use it anymore, left click on the app.
- 5.) Buttons should appear below, one labelled "Uninstall", click on this.
- 6.) Follow the prompts to uninstall the application.
- 7.) Repeat this process to uninstall all unnecessary applications and programs.

## Disable Unnecessary Applications and Services from Starting Up

After uninstalling unnecessary applications and programs via the Settings window, you can also disable certain applications, programs and services from starting, which usually take up extra memory and CPU usage.

- 1.) Click on the textbox that is located to the bottom left of the Windows toolbar that states "Type here to search".
- 2.) Type "msconfig" into the textbox and hit "enter".
- 3.) A window titled "System Configuration" should appear.
- 4.) Click on the "Services" tab, this will display a list of services that start when your computer starts.
- 5.) On the bottom left check/tick the checkbox labelled "Hide all Microsoft services", to hide the default Microsoft services.
- 6.) Go through the list checking off each unnecessary service from starting up. Such services that should be left checked are antivirus, printer/scanner, messenger/chat software. It is recommended that you research each service before disabling it.
- 7.) Once checking off unnecessary services, click on the "Startup" tab.
- 8.) Click the blue text, "Open Task Manager".
- 9.) In the task manager right click on any items in the list that you don't need (do your research into what you require and don't require) and select "Disable".
- 10.) Click the "Okay" button at the bottom left.
- 11.) If a message box appears stating that a computer restart is necessary, restart your computer.

#### **Defragment and Optimise Your Drives and Hard Disks**

By default, your Windows 10 computer should defragment and optimise your hard disk in the background. A lot of new computers these days have Solid State Drives as their primary drives. Solid State Drives tend to be faster than traditional Hard Disk drives. However, if your computer is being sluggish and slow, it is a good idea to make sure your drives are defragmented and optimised, especially where the programs you are using and where the Windows operating system is installed.

- 1.) In the textbox next to the Windows button, that states "Type here to search", type "Defragment" and hit the enter key.
- 2.) The Optimise Drives window will appear, displaying a list of drives and their status. If any has the status "Needs Optimisation" and it is a drive you use consistently, it is recommended that you select it from the list, and click the "Optimise" button.
- 3.) After doing this to all the drives you consistently use, the drives should be optimised, where possible.

## Use a Registry Cleaner such as CCleaner

If you have had many applications, programs, services and plug-ins (such as for your web browser) installed on your computer, your computer might be retaining old settings and old pieces of software that you don't need, and slow down your computer. If your computer is still running slow and sluggish.

1.) CCleaner can be downloaded from the Internet. Google "CCleaner Download" and visit the CCleaner download page. There are two versions you can purchase/download, the base version being the Free version, but does not include the

best features. You can choose to download the Professional version, which also comes as a free trial.

- 2.) Download the setup executable and run and follow the prompts to install CCleaner.
- 3.) A CCleaner icon should appear on the desktop and you can double click on this icon to start it, however after the install you can select to run CCleaner and CCleaner starts. Follow the buttons (Usually "Start" to start a scan when opening it for the first time).
- 4.) After the scan there is a report. If CCleaner found a number of items it will give the option to make your computer better by clicking the "Make it better" button. Click this button.

#### Use a Malware Remover

Malware removal software scans your computer for malware (malicious software) that can corrupt, destroy and and slow down your computer's software and in some cases hardware. It is important to make sure your computer is adequately protected from Malware, which can be infected by questionable and sometimes hard to spot emails, attachments, downloads, visiting a questionable website, software and other apps.

A 14-day trial (for the premium version) of a malware tool that has been around for quite a long time is MalwareBytes. MalwareBytes can be downloaded by Googling "MalwareBytes Download".

- 1.) Once you have downloaded MalwareBytes (the setup executable) from a web browser, run the setup file, and follow the installation prompts. MalwareBytes appears as an icon on the desktop application (and can be opened by double clicking on it) and also can be started after installing the software on your computer.
- 2.) Once MalwareBytes is opened, select "Scan". Wait for the Scan to complete.
- 3.) If any issues are detected, go through them, and select the Malware issues found and if okay by you, researching the type of malware issue found, choose to remove them.

It is important to note that installing a malware removal tool removes and protects your computer from malware, however it does take extra memory, drive space and CPU usage. It is possible for it to be counter productive (slow down your computer) as it is an extra application/service that needs to start when your computer starts up. If your computer runs noticeably slower, after scanning and removing any malware found, you may decide to uninstall the malware tool.

#### Removing MalwareBytes if your computer is running slower with it installed:

- 1.) Click on the Windows button (located bottom left on the toolbar, where it is represented by the Windows symbol).
- 2.) Click on the settings button in the menu that appears located at the bottom left (represented by a cog/gear symbol).
- 3.) In the Settings window, click on "Apps".
- 4.) In the Apps and Features, scroll through the list and find MalwareBytes, usually represented by a blue M icon.
- 5.) Click on MalwareBytes, then click on "Uninstall" and follow the prompts.

## Use An Antivirus Software Package

If your computer is running noticeably slower, you may have a virus if you don't have an adequate Antivirus software package installed to protect you. Having a computer virus poses not only a performance hit, but may expose you to security threats, identity theft and also data loss. It is important to be adequately protected on your computer. Windows comes with a free antivirus package called "Windows Defender", this has a reputation for providing a base level of protection, but other off-the-shelf antivirus software packages include "Norton Antivirus" and "Trend Micro". Our business uses "Norton Security" which includes Security and Performance features, and can be purchased at a computer store and/or online and usually it is a subscription based service.

## **Generic Antivirus Steps:**

- 1.) Purchase a subscription online or in-store at a computer store. Norton is recommended.
- 2.) Follow the instructions on the packaging/card or online depending on how you purchased it to register and install the antivirus to your computer.
- 3.) Start the anti-virus package by typing its name in the "Type here to search" text box in the Windows toolbar and clicking on it in the search results.
- 4.) Once open, make sure you update the virus definitions before doing a scan. This can be done in Norton by clicking the "LIVEUPDATE" link to the bottom right of Device Security panel, on the left of the "My Norton" window. When the updates have been downloaded, hit "Apply Now", if using Norton.
- 5.) Run a virus scan. If using Norton, after applying the updates, click on "RUN SMART SCAN".

## Add More Physical RAM

If your computer is still running slow, it may be because you don't have an adequate amount of RAM (Random Access Memory) installed, and the computer is using your hard disk or SSD for storing memory (called virtual RAM / a Page file). To check how much physical RAM you have installed and how much is being used, follow the steps below.

## **Checking the Amount of Physical Memory Installed:**

- 1.) Close any major Applications you have open in Windows.
- 2.) Go to the "Type here to search" textbox located in the Windows toolbar at the bottom left.
- 3.) Type "msinfo32" into the textbox.
- 4.) Hit enter.
- 5.) A "System Information" window should appear.
- 6.) Scroll the System Information window, using the scrollbar to the right, to find the field "Total Physical Memory", write down this value (it is usually measured in Gigabytes (GB)).
- 7.) Scroll the System Information window, using the scrollbar to the right, to find the field "Available Physical Memory", write down this value (it is usually measured in Gigabytes (GB)).
- 8.) If you find that the Total Physical Memory minus the Available Physical Memory is less than 2-3GB, then you may need to install another RAM module or a bigger RAM module.
- 9.) Scroll up the System Information window, using the scrollbar to the right, to find the field "System Model", write this down.

If you find you may not have enough available physical memory after following the steps detailed above, visit a computer store and tell them the "System Model" you wrote down, and also the "Total Physical Memory" and "Total Available Memory" values that indicate you may be lacking Physical RAM memory. They may be able to determine the RAM module type that will fit and work with your computer from the "System Model". The computer store may also ask you to bring your computer into the tech-bay to inspect it. Installing a RAM module involves opening up the computer, and should be done carefully by an IT Technician if you don't have any experience. You will need to pay for a new RAM module and usually a tech-labour cost for installing and testing the new RAM module.

#### **Reinstall Windows and Have a Fresh Start**

If you have reached this stage, maybe your computer has a software/Windows problem, especially if you have been using it for a while since you have given it a system restore and/or a fresh install of Windows. Most commercial over-the-shelf computers have a system restore that restores the computer to its as-new state, but depends on the manufacturer. For Windows 10 computers, you can follow the steps below:

#### **Steps to Reset your PC:**

- 1.) Create a folder called "Backup" on the desktop and move all your files (such as documents, emails (using an Email export feature if you use a desktop email client), photos etc.) to the "Backup" folder.
- 2.) Buy a USB stick or if you have one available, use it, and copy the "Backup" folder containing your important files that you want to keep.
- 3.) Close all applications on the desktop.
- 4.) Click the Windows start button usually located at the bottom left of the toolbar.
- 5.) Click on the settings icon (it is displayed as a cog symbol) in the start menu.
- 6.) Click on "Update and Security".
- 7.) A menu should appear to the left, select "Recovery".
- 8.) Select the first option, "Reset this PC", by selecting the relevant "Get Started" button under "Reset this PC", if you agree to reset your PC with a fresh installation of Windows.
- 9.) Follow the prompts.

## **Replace Solid State Drive and/or Hard Disk Drive**

If your computer still runs slow, you may have a faulty hard disk or solid state drive. Sometimes the drive has errors which occur and cannot be fixed by software but need to be replaced with a new drive. Drives are not intended to last forever, and have a limited lifespan. Usually with sold state drives, there is a measurement on how many rewrites it supports before it may fail, called DWPD (or Drive Writes Per Day), which is the amount of rewrites supported on average per day for the warranty period.

Different computers may support different hard disk and solid state drive types and connections. Most drives these days have a SATA connector but it may depend if it is a laptop and/or desktop computer. Make a backup of all your important files (such as documents, emails and photos etc.). A hard disk change/install can involve some technical skill, so it is recommended that you take your computer to a computer store where you can purchase a new hard disk or solid state drive and they can also install it for you, along with a fresh copy of Windows.

## It May Be Another Hardware Problem

If you have reached this stage, there is a hardware fault with the computer, which may involve a faulty RAM module, faulty CPU, faulty motherboard, faulty Power Supply Unit, a faulty drive affecting the other drives etc. Please take your computer to an experienced IT Technician to help diagnose the issue.

You can get in touch with Logan IT Services via www.loganitservices.com.au