White Paper: PC Maintenance

There's more to life than watching an egg timer!

Introduction

We've all experienced the joy of a shiny new computer or laptop - the speed and ease of it all, zipping around the web and enjoying your new purchase. But invariably, after six months, that edge seems to go. Things slow down, break, take ages to load and generally become a chore. What happened to those glory days?!

Windows used to be notoriously bad for this "clogging up", and Mac users loved boasting about how it never happened to them. Things have definitely improved with Windows 10, which runs a host of maintenance tasks that run in the background, however it's not immune.

This guide contains a few simple to follow tools which, two or three times a year, will help your new purchase last longer and run smoother; all it needs is a little TLC.

Disk Clean-up

"Disk Cleanup" has been around forever; just click on the Start button and search for "Disk Cleanup" to open the little app. Tick all the boxes and click OK – you'll be amazed how much rubbish it removes
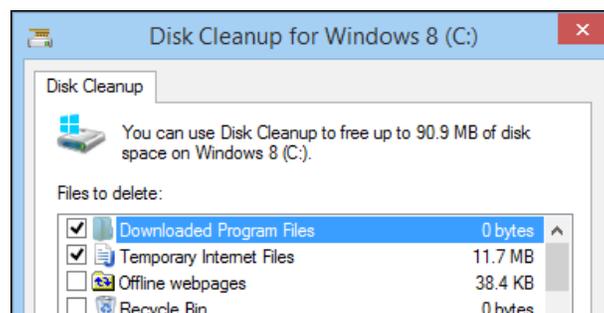
Defragmenter

As you use your computer, data gets sprayed all over your hard disk. Usually Windows lumps relevant files next to one another, but when it gets side tracked with other activities it often forgets to keep this all neat and tidy. The result is that parts of the same file can get recorded in different physical parts of your hard disk; it still works, but loading it takes longer because the drive needs to go off to different sections to pull together one file – called Fragmentation. Another age old friend in Windows, the Defragmenter will correct this.

Windows 10 runs this task automatically once a week on average, but it only does it when your PC is idle. If, like us, you're *all too rarely* "idle", it can create a backlog, so running it manually doesn't hurt. Click on the Start button and search for Defragmenter to open up the little application
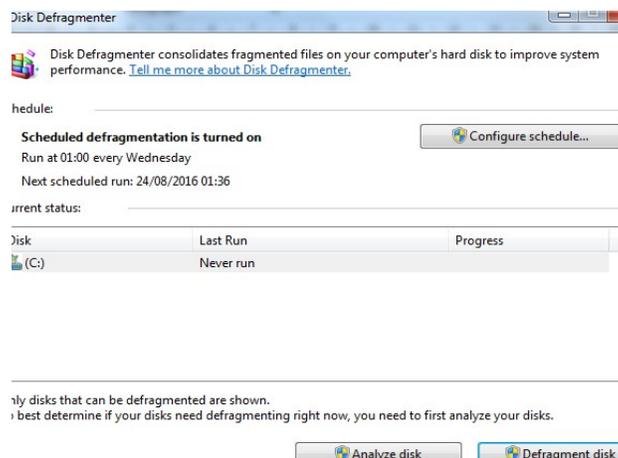

Select your C:\ and click Defragment disk. Leave it running (ideally, don't use the computer) and it will tidy up all these files. It will take an hour or two, and it may ask you to reboot before it kicks in. Just let it do its thing and it will get your files nice and neat again on the hard drive, and opening them in future will be faster and less prone to corruption

Uninstall all the pre-bundled rubbish

Sadly new computers always come bundled with a whole heap of "included" software – we call this bloatware, because it bloats out your computer. Almost without exception, you can bin these programs. Windows contains all it needs to run out the box, so anything on your machine that is installed by the manufacturer (e.g. "Toshiba Service Station" or "Lenovo Battery Manager" or "HP Security Manager" or whatever the make of your PC is) can be uninstalled and free up memory and space on your system.

Go to the Start menu and search the word "uninstall" and select Uninstall a Program. This will bring up all the programs installed on the PC; of course some of these you might use, and it will vary case by case, but anything you don't use, get rid of. You are not going to break your PC by clearing virtually everything you don't use here; they aren't core operating system files but are additional programs installed on top of Windows. If you are unsure what a program does, just type the name into Google and you'll quickly be able to tell what the program does and if you can safely remove it.
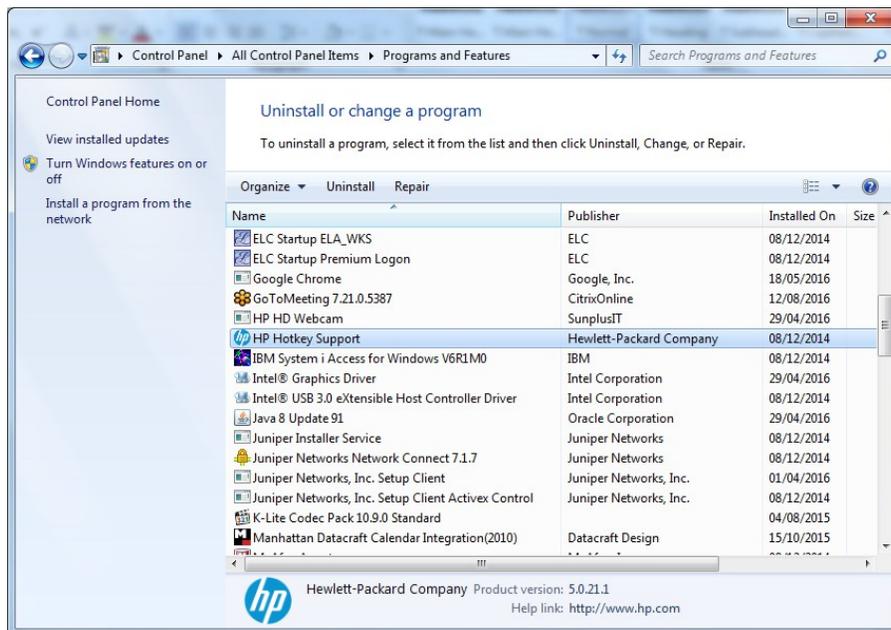

Run Windows Updates

Keeping up with relentless "updates" might seem like a bore – a never ending treadmill of annoying pop-up messages to update, but they are very worth doing. Software is constantly being improved and enhanced, made more efficient, and secure. For Windows, the updates that Microsoft release provide three things:

1. Security holes are plugged (patched) – important for obvious reasons

2. Windows itself is improved – made leaner and meaner so it runs faster and crash less

3. Features are added – to help productivity and make life that tiny bit simpler

If you use Windows 10 (which we would thoroughly recommend you do – a guide to Windows 10 is available free on our Knowledgebase) these updates are automatic, but they don't always happen because the system waits until your PC is completely idle, which it rarely is.

Whatever operating system you use, running a manual check for updates should be done as part of your maintenance tasks, to catch any that haven't had a chance to install yet. To do this, just click the Start button and type Windows Update. Select the Update program and click "Check for Updates"; leave it about 20 minutes and it will gather them all and then give you the option to install. Let them install and restart your PC to update it with the latest security patches and improvements
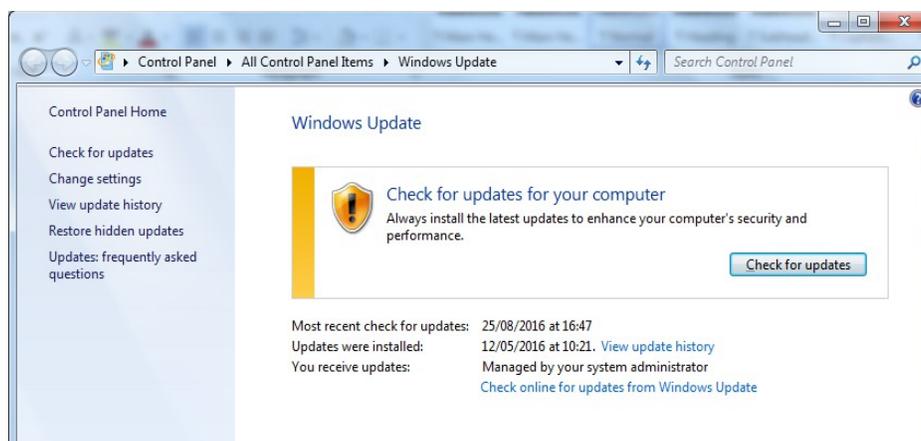
Use a clean-up tool - CCleaner

Third-party tools can also help automate some clean up tasks, but **be very careful** – there are LOTS of fake clean up tools that actually install spyware or viruses on your computer. As a general rule of thumb, anything you see online asking you to click to "improve your PC" or speed it up, or tells you "there are errors on your PC, click here to resolve" – should be completely ignored. These claims are usually false and very dangerous.

One tool you can use safely is [CCleaner](#), which has been removing junk from computers for decades now. This free program is easy to use and really useful for complementing the activities mentioned above. There is a "pro" version which is not free, but you don't need that; just download and install the free version from the CCleaner website and run all the tools down the left hand side; you just click next and let it do its thing, it's very intuitive but there's also a simple user guide [here](#) and a handy little video walking you through the basics [here](#). As a minimum, run both the Cleaner and the Registry tools from the menu down the left hand side
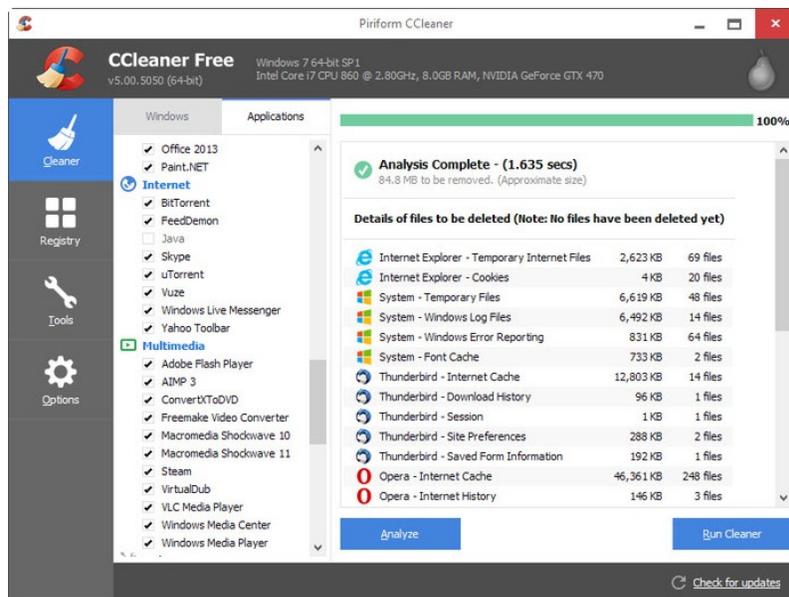
My PC is still horrendously slow, what else can I do?

If your computer is really old (a typical lifespan of a decent laptop or desktop PC is considered to be about 4 years) or incredibly slow, doing the above may still not help. You've got two options:

1. Buy a new PC – a budgetary figure for a standard use laptop is around £500

2. Rebuild your existing one – wipe everything, reinstall Windows and restore your data

Option 1 is, of course, expensive. Option 2 won't cost you money but you can expect it to take at least four or five hours, possibly more; the best part of a day realistically. That said, you'd be amazed at what a rebuild can do, effectively taking your machine back to brand new again.

There's no single way to achieve this – it will vary by machine, but if you still have the original discs that came with your computer then these will allow you to easily do it, just by putting in the Restore disc and going through the options to totally wipe or "factory reset" your machine, after having taken a copy of all your data off, of course.

You can also speak to us about the process, as well as upgrading the memory in your current computer, as we've done it many times on many different makes and models of computer! Finally, there is some good reading online here and here. The rebuild option is dramatic, but should not be ignored – with a little preparation and advice, you can end up with a computer that's as good as new, and you will learn a lot in the process too.

Our Conclusions

Maintenance is an area that Windows was notoriously bad at; within six months you could see your nice new PC grind to a halt. These days things are improving, as Microsoft learns from Apple and puts in processes to self-maintain. But taking an hour or so every few months to tidy things up and give your machine a little TLC will go a long way to keeping it happy and making it last longer.

The steps in this guide cover the "usual suspects" but it's by no means exhaustive. There are some fantastic resources online, such as this series of articles aimed to take you from beginner, to

intermediate, to pro, over a few levels. They are worth reading; not only to keep your PC running well, but to empower you with the skills and confidence to run your computer – not let it run you!

At Ethical IT we are always [here to help](#) with these sorts of subjects too, so don't hesitate to get in touch with us to discuss this – on a personal level or for your organisation – we're all ears. Our Twitter feed also contains regular tips and tricks about these sorts of things, so please follow us [@ethicalituk](#)