

Revitalising an older PC

Hugh Macdonald

You might have received an older PC from someone and now you're wondering what to do with it. I often get handed old laptops and desktop PCs that clients no longer want. Rather than these going into e-waste, I like to fix them up so they can either be handed onto other family members or to charities.

If you're not afraid to handle a screwdriver and have enough technical know how to install an operating system, then you can follow the steps below and breathe some new life into your recently acquired PC, or the one that has been sitting in the cupboard for a few years.

Install a SSD

There's a high likelihood that your older PC is sporting a mechanical hard drive running at 5400rpm or 7200rpm. Mechanical hard drives have been almost entirely replaced by solid state drives for running operating systems, and mechanical hard drives are now used to provide large amounts of data storage instead.

So the first thing you should do is visit your local PC store (or order from them online) and get yourself a 2.5 inch solid state drive (SSD). If you are putting it into a desktop PC then you might also need to buy a 3.5 inch to 2.5 inch mounting bracket. You can get a 250gb SSD for about \$45 and a 500gb SSD for about \$75. A 500gb SSD should be big enough for most people to store their operating system, application and files and still leave plenty of room for future updates.

The next stage is to install the SSD into your PC. If it's a desktop PC then this will involve opening the case, removing the old mechanical hard drive, installing the new SSD and then plugging in a power connector and connecting it to the motherboard using a SATA cable. If it's a laptop, then it will involve taking off the back case, removing the old mechanical hard drive, and putting the SSD in its place. For some laptops it's a fairly simple process, for others it involves greater disassembly. Your best bet is to Google your laptop manufacturer and model number and hard drive removal at the end. For example my search query would be 'Toshiba Portege R500 hard drive removal', You'll then get either step by step instructions from a website such as iFixit or a YouTube video that someone has produced.

(An optional step at the same time that you're replacing the mechanical hard drive with a solid state drive is to put more RAM into your older PC. This can only increase the performance further. However if you're tossing up between spending money on extra RAM and spending money on a solid state drive, go for the solid state drive, as you'll get a bigger performance boost from it.)

Install Linux

Your older PC probably came preinstalled with Windows. Most PCs do, and whether it was Windows 7 or Windows 8/8.1 that it came with, the option does exist to reinstall this version of Windows. However both these versions of Windows are now end of life, so from a security point of view, that's not recommended. The other option to stay in the Microsoft world is to upgrade to Windows 10, which will be supported until 2025. You can probably do this for free if the older PC did come with Windows or later. However Windows 10 only really runs well on a modern dual core processor with at least 8GB RAM. If your older PC lacks in either or both of these areas, then you're going to find Windows 10 sluggish.

The other option is to install Linux. Unlike Windows, Linux comes in many different configurations (known as distributions). Some of these distributions work best on the latest and greatest hardware, while others will happily work well on older hardware because they've been designed to require only minimal resources in terms of processor speed, number of processors and amount of RAM. And no matter which

Linux distribution you choose, it will be up to date. It will support the latest versions of popular web browsers like Google Chrome and Firefox and enable you to install the latest versions of open source alternatives to the most used applications for Windows. For example, for office work there is LibreOffice, for email there is Thunderbird and for image manipulation there is The GIMP. Plus there are many others available as well.

For these kind of situations, the Linux distribution I've come to really appreciate lately is Lubuntu. It's built on the foundations of Ubuntu, one of the most popular and widely used distributions, but uses the LXqt desktop environment, which requires less than 1GB RAM. Even with for example, Firefox and LibreOffice open concurrently, Lubuntu uses less than 2GB RAM. This makes it perfect for getting the most out of virtually any older computer (or any new one as well). It also works in a very similar way to Windows XP and Windows 7, so you should feel pretty comfortable using it.

Installing Lubuntu is no harder than installing Windows 10. You download the installation file (with the extension .ISO) from the Lubuntu website, burn the file to a USB stick using either Rufus or Balena Etcher, put the USB stick in your older PC and boot from it. The first time round you will boot into a live environment where you can try out Lubuntu. Once you are happy that you like what you see, you can click a shortcut to begin the installation process. Follow a few straightforward steps to get the installation going, and usually within about 10-15 minutes you'll be booting into Lubuntu for the first time.

Finishing Up

Following the above process should lead to a very functional PC for yourself or someone else that is secure and up-to-date, and runs quality software that is capable of undertaking most everyday computing tasks (and many that aren't everyday for that matter). As mentioned above, when it comes to installing an SSD, there are guides online for virtually every laptop and desktop PC you can find, so you should be able to find one of those and follow it. When it comes to installing Lubuntu, there are plenty of guides that will take you through the process step by step with screenshots to guide you.

The other option is to head over to our own Yammer. Here you'll find many members who truly embody the 'members helping members' spirit and who will gladly talk you through installing an SSD or installing Lubuntu, or both.

Good luck if you do embark on the above journey with an older PC, and I'd love to hear about your experiences for future editions of PC Update.