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Speed 40 mbps

By Eoghan McCloskey Internet service providers, in most cases, price their Internet service plans on a sliding scale based on the maximum connection speeds that this package can offer. The choice of internet package to buy is personal, but it is usually based both on the Internet needs of all members of the house and on the budget available to buy an Internet service. Comparing two different speed packages is a useful way to illustrate the importance of choosing the right one for your needs and your budget. Internet speeds are generally expressed in terms of maximum data transmission per second. The most common units used to express data transmission in this context are megabits, equal to 1,000 kilobits and 1,000,000 bits; megabits are sometimes shortened to megs. The megabit should not be confused with the megabyte, which is a completely different unit. For example, if an Internet service provider promises 12 megabits per second, you will be able to download up to 12 megabits of data per second, which would allow for some minor variations due to network traffic and other individual factors. By comparison, a connection of 1 megabit per second is technically slower than an 8-megabit connection per second, although the 1-megabit connection is much cheaper. Internet speeds always vary depending on an almost unlimited set of factors, including the type of network on which Internet service is delivered, global network traffic, the state of your computer and your home networking equipment (routers, switches), the speed of the server you connect to, and many others. It is sometimes difficult to approach your own Internet use in terms of flash websites such as YouTube, Internet hosting and others may require an 8-megabit-per-second connection or faster. The decision to purchase an internet package is personal and subjective. It may be tempting to buy a faster internet plan just to ensure a consistent Internet experience, but buying extra and unneeded bandwidth can be a waste of money if a cheaper and slower plan can meet your needs consistently. The Commercial Internet service providers are generally willing to help you choose the right speed plan based on your lifestyle. Stay up tot with the latest daily buzz with the BuzzFeed Daily newsletter! The supply chain starts with the customer. By cutting down retailers and selling directly to its customers, Dell is in a much better position to real customer demand. Replace inventory with information. To operate with an inventory close to zero, Dell constantly communicates with its suppliers. It sends status updates three times a day from its assembly plants; each week, it updates its quarterly demand forecasts. By making communication its highest priority, Dell ensures the lowest possible stock. If you can't measure it, you can't handle it. Dell knows what works because it measures everything — inventory days, cash conversion cycles, time to build a PC. As Dell reduces these numbers, it has become more efficient. Complexity slows you down. Dell has reduced the number of its major PC providers from several hundred to about 25. It standardized the critical components of PCs, which streamlined its manufacturing. Dell has become faster by making things simpler. Create a decisive mindset. Dell is not content with a gradual improvement; it requires massive changes. This year, it wants its Austin-based PC assembly plant to improve production by 30%, and it's already ultrafast. Kevin Rollins, CEO, said, 'You don't get big results if you don't challenge people with big goals. Illustration by Harry CampbellHas your PC has lost its pep? How about your network connection, printer or even your phone? Here's our guide to giving your equipment a new life. Follow our advice, and you can set your system and other technology essentials on fire. To get the best performance from your PC, use high-performance hardware. No amount of tweaking inside Windows can give you the same kind of speed boost that some judicious hardware upgrades can - the most effective way to soup up to any computer is to start by updating the components inside. Here we will explain how to upgrade the two most vital components: the RAM and the graphics card. WARNING: Before attempting any of these upgrades, take precautions against static electricity by moving your PC to a clean, non-carpeted workspace and using an antistatic wrist strap to discharge any static electricity from your body. Hold the RAM module by the edge, place one corner and push the other end. Adding RAM is the most cost-effective upgrade you can do to speed up a slow computer. When a system runs out of RAM, it must exchange overflow data on the hard drive, which can significantly slow down performance. Here Add more memory to your desktop, laptop or netbook. Ram is available in several flavors, such as DDR2 and DDR3. New technologies offer faster performance, but most parent tables accept only one type of RAM. Check your PC manual to find out what type of RAM modules you need and how you need to install them. RAM dealers such as Crucial and Kingston offer convenient online tools that identify the appropriate RAM for many PCs and parent tables. In addition, to enjoy more than 4GB of RAM, your PC needs to run a 64-bit operating system; Windows 7 is available in 64-bit version, and highly recommend it. To start, open your PC case and search for memory slots. In laptops and netbooks RAM slots are usually under a removable panel on the bottom of the machine. To remove the existing RAM, release the clips at each end of the module so that it detaches. With clear slits, gently but firmly insert the new module. On a desktop machine, it is often best to sit one corner of the module first, then press the other end in place. Once you have completely inserted the module, the clips must close to keep the memory safe. On a laptop or netbook, press the end with the metal led into place first, then press until the clips slam tightly around the ends. For a complete guide, see How to upgrade your PC's RAM. Some new graphics cards require a connection to the PC's power supply. Even if you're not a player, upgrading your graphics board can give your PC a serious boost, since Windows 7 and Windows Vista both have fancy effects in their user interface. Although you can upgrade the graphics on some laptops, in this article we will focus on PC. When desktop to buy a new graphics table, select the one that fits the slot on your PC. In most new systems, this is an PCI-Express slot; some older systems may have only PCI or AGP locations. Fortunately, graphics card manufacturers still sell products to fit older slots, so an outdated motherboard doesn't need to be a total obstacle. With your new card at the heart, open the PC case and locate the existing graphics card. Before you try to detach it, remove the screw by holding it down and release the plastic tongs on the motherboard that can attach it. Once the old card is off the road, drag the new board straight down into the slot until it is firmly seated and the plastic clip on the motherboard has broken tightly around it. The new PCI-Express graphics tables often use so much juice that they require a special PCI-E power line from the computer's power supply. If you have installed such a card, connect this power line (the card may have two) before closing the case. Then start the PC and install the drivers from the drive provided by the manufacturer. For more tips on choosing a graphics card, see Geek 101: A Graphics Card Primer. Page Whether you're running Windows XP, Vista or 7, you have some really good ways to cut stuffed animals and run your operating system smoothly, faster and efficiently. By turning off unnecessary features and disabling unwanted start-up programs, you can get an instant speed boost. Windows - yes, even Windows XP - is loaded with effects that take system resources without providing significant benefits to users. If you turn off some of these items, Windows can divert resources to more useful activities, such as running your programs. In Windows XP, open the system control panel and click the Advanced tab. Click Settings, then select the radio button Adjust to get the best performance. This will turn off some of the frilly effects, such as falling shadows under your menus, and make Windows a little more eye-catching. In Vista, start by disabling the resource pig known as the SideBar. In Vista and Windows 7, turn off the Aero environment to recover some of your PC's lost memory and processor power. To do this, click right on the desktop and choose to customize from the context menu. In Vista, click The color and appearance of the window, then uncheck the box to activate transparency. In Windows 7, select the theme labeled Windows 7 Basic.Once you've installed a good amount of programs on your PC - your basic base of apps, so to speak - you'll want to check that you don't have unwanted apps running in the background that could slow down your PC. These programs can be designed to be launched when Windows starts so you can load their corresponding apps faster. The problem is that they run all the time, no matter if you intend to use the parent app. In Windows 7 or Vista, click Start and type msconfig in the Search Programs and Files field, Press Enter. In the System Configuration window, select the Start tab. In the Order column, look for all the programs you don't want to wait for when you start. For example, take iTunes: If you've installed this app, you'll find both iTunesHelper.exe and QTTask.exe. These are useless additions - the first launches when you start iTunes anyway, and the second places just a QuickTime icon in the corner of your screen for the easy launch of the program. Uncheck both. Once you've checked all the programs you want to start and unchecked the programs you don't have, click OK. To improve Windows speed, control the launch (or if) of services by adjusting the Start type selection. In addition to start-up programs, you can find services on your PC; Microsoft also recommends reducing them. Click Start, type services.msc in the search field, and tap Enter. Up pops the Services window, a list of options and executables that is even more confusing than the Start window. To identify which services to disable (and which ones to leave in place), see Black Viper's comprehensive list of Windows 7 services in all of its various editions, as well as a list of services you need to change and how you need to set their settings. Armed with this advice, all it takes is double-click on any listed service. You only need to worry about the Start Type list on the screen that then appears. By switching between automatic, manual and disabled modes, as recommended by Black Viper, you will be able to control exactly how the services launch - the same case - during the Windows startup process and during your general use of the operating system. Every little bit helps. If you want to keep your system fast, delete your C folder on Do so as soon as you start in the operating system, or even via safe mode, to make sure you erase all the last unused files from your drive. Similarly, don't use the Windows 7 uninstall feature or the default uninstalling of an executable program to remove an app from your drive. Instead, use the free Revo Uninstall utility; This awesome application removes programs using their default uninstall routines, but it also goes a step further by scanning your system and registry to clean up all traces of your hard drive program. Page 3 Network slowdowns can be difficult to troubleshoot. Much depends on what you actually do across your network - copying files to another system, for example, could slow down to an analysis if you write to a NAS device attached to a poky PC in the next room. But some general settings and tricks can still increase your network's performance in Windows.The first step to updating your network is to install the latest Windows updates and download the latest drivers for your PC's network maps. Second, install the current firmware for your router. All of these elements are essential to optimal network speeds, and you can usually locate them on the manufacturer's websites. If a given driver's release date is more recent than the last time you remember the update, you should probably update again. Try new routers make it easier to update if you connect to the web administration panel: As a rule, it will have an option for you to download and install the latest firmware with a single click or two. Changing Link Speed and Duplex to its highest setting can help network performance. Once you've installed the latest software and firmware, try adjusting your network card's automatic trading setting. In the control panel, click Network and Sharing Center. From there, click Change the adapter settings, then click right on your local connection and select Properties. In the screen that appears, click the Set up button under the Connect Using field. Select the Advanced tab. Set 'Link Speed and Duplex' to its highest available setting, such as 100 Mbps Full Duplex or 1000 Mbps Full Duplex.Windows Vista and Windows 7 have a wonderful habit of reducing your network connection when playing media files, to prevent movies from jumping during playback. You can adjust this limitation by changing the decimal value of 'NetworkThrottlingIndex' key. Tap Windows-R, tap regedit and tap Enter. In the registry, go to the HKEY_LOCAL_MACHINE-SOFTWARE-Microsoft-Windows NT-CurrentVersion-Multimedia-SystemProfile key. Increase the decimal value of the 'NetworkThrottlingIndex' key to a higher number. Putting it to 100 disables the service; Microsoft recommends you go no more than 70, but there is no harm in the test settings to see what works for you. Online games, streaming media programs, Internet and peer-to-peer applications such as BitTorrent consume a lot of network bandwidth because of the massive amounts of data they transmit. To reduce the amount of stress these applications put on your router and improve your network's overall performance, manage them more efficiently with your router's porting function. Connect to your router's configuration screen. Look for an option that allows you to specify the port address; it will be labeled slightly differently from one router to another. Once you've found it, type in your system's internal IP address (usually in the form of 192.) and enter your app's favorite port (for example, in Skype, it's located under tools, options, advanced, login). Choose the TCP and UDP protocols to transmit it and save your settings. To see if your chosen port actually has a clear tunnel through your network to the Internet, fire the app and visit CanYouSeeMe.org. Enter your port number and click the Check button - if you get a successful answer, you're all set. Page 4 Although we live in an era of cheap and readily available storage, the large number of choices available can make selecting the right reader a tricky proposition. But choosing a fast drive, whether internal or external - can have a massive impact on your PC's performance, as well as your network's performance. Here are a few things to consider when selecting a new player. The roomy Seagate FreeAgent XTreme offers high transfer speeds. The great advantage of external storage is obvious: you can hide it for preservation or take it with you on the road. Most home users choose external storage for backups. With an external drive, however, you'll probably sacrifice speed. External fastening technologies such as USB, FireWire 400/800 and ethernet are slower than internal storage connections; only eSATA can match the data transfer speeds of internal drives. The new USB 3.0 drives seem to be able to push the data at comparable speeds (and maybe even faster), but right now there aren't many PCs with built-in USB 3.0 support on the market at the moment. If you're faced with a choice and want maximum compatibility, choose USB. A much better option is a triple or quad interface box (USB/FireWire 400/eSATA, or USB/FireWire 400-800/eSATA) that allows you the fastest possible connection in all circumstances. For internal storage, SATA are the best choice, the fastest - and nowadays, SATA is most likely the main (or only) drive connector in your PC. Readers with the old PATA connector are still available in up to 750GB of capabilities, so you can replace the PATA drive in an older system. However, if your old system has a SATA bus, use it instead. SATA readers also have the unique ability to work outdoors in eSATA cases. eSATA is much faster than USB or FireWire, although your PC can an additional card to support this type of connector. Apart from a laptop or netbook, it is rare nowadays to find a drive that works at less than 7200 rpm; you shouldn't even consider something slower for a desktop PC. Windows performance will improve significantly as the speed of the hard drive increases. You'll find hard drives of 10,000 rpm and 15,000 rpm, but they have a bonus, and you may not notice much of a performance gain. Unless you have an eSATA connection, don't bother with such drives for external use - slower buses would simply strangle the drive's speed, denying any potential for additional performance. The amount of cache on a drive also affects performance, but not generally significantly. You'll also see some eco-friendly drives with up to 32MB of cache, and high-performance drives with only 8MB. Make sure you get 8MB or more; beyond that, however, don't worry about it. Solid-state drives are all the rage these days, but the NAND flash memory used in most SSDs varies enormously in speed. Most use data quickly, but some get enthrly when writing data. Still, the new SSDs scream at disk-based rivals in performance tests, and faster models quickly become affordable. When speed is paramount, study the fine print and opt for an SSD based on SLC (Single Level Cell) technology on an MLC (Multi Level Cell) model. Not only is SLC faster, but it should also last longer: SLC is rated for 100,000 written as opposed to 10,000 for MLC. That said, 10,000 is actually a lot of writing for a data cell, so don't give up MLC if you don't need ultrahigh speed or if you mostly want a laptop reader that can withstand a shock. Page 5 Raw printer speeds keep getting better every year, but we still seem to want documents to come out a little faster. Fortunately, you can use a few tricks to improve printer performance. Whether you got a bargain inkjet in a package with your home PC or you charged a thousand dollar laser printer to your expense account, these suggestions will speed up your printing speeds. Reducing print quality in Properties settings will speed up output and save ink. Often the devil is in the details - with printers, which means that detailed prints take longer to if you reduce the quality a little, you can produce faster prints and save ink. In any application, choose Print and select properties. The printer settings vary depending on your model; in our case, we found the necessary settings under the Main tab for one printer and the Paper/Exit tab for another. Reduce print quality - try draft mode - and see if the faster results are good enough. The speed of printing depends mainly on the amount of graphics and text on each page, but the amount of page also counts. You can cut the printing time in half by formatting two pages of documents into one sheet. This method works best to keep pages of receipts, spreadsheets or documents that you only refer to occasionally, since everything will be smaller. Choose Print, then Properties. Your next step may vary with your specific printer. For our test printer, we clicked on the layout/watermark tab and chose 2 pages per sheet. The type of connection you use to attach your printer to the PC directly affects its speed. If you have an inkjet, you've probably connected it with USB 2.0, which should be about as fast as possible. But if you have a network printer - or if a network PC acts as a print server for a USB printer - select the fastest network connection available. We recommend connecting your network printer to your router with an ethernet cable rather than relying on a wireless signal. A cable connection is more reliable, and it's almost always faster. Wi-Fi speeds deteriorate with distance, so if you need to use a wireless signal, try placing your printer near your router. If you have to go with a wireless printer, make sure that the printer itself or any wireless printing server, you can connect it to support 802.11n, which is the fastest wireless standard available. With a wired connection, see if your printer supports 100Base-T or gigabit ethernet. If so, check that your router and network can handle these speeds - if they can't, you create a bottleneck, especially when sending heavy graphics files to the printer. For a complete guide to gigabit ethernet, see Upgrade to gigabit networking for better performance. Unchecking this box will remove graphics from a web page, making printing easier and faster. When you print information from the web, ads and graphics slow down the process. If you need to print a page, first look for a print link; Clicking on one will usually reformat the page without extras. Alternatively, you can manually disable the graphics. In Internet Explorer, choose tools, Internet options. Click on the Advanced tab and scroll

to the Multimedia section. Uncheck the box to view the photos. In Firefox, choose tools, options and click the Content tab. Automatically uncheck the box to load the images. In either browser, click the refresh button to reload the page without the images, and then choose Print. Then switch the tool settings to restore the graphics. High-end printers have been sharing design concepts with PCs for decades. You'll find a network interface, ram, and other parts in laser printers starting at about \$400. And just like with a PC, a sufficient RAM can increase the performance of a printer, so you should see if you can add more. First, search for your printer's specifications on the manufacturer's website or through a web search. If you want to download a PDF manual, look for something like a specific printer name manual, which will often take you to the company's website. Note that some companies refer to memory instead of RAM. Now that you know if your printer can take and its maximum capacity, determine how much it currently has. Open the printer driver. In Windows 7, choose the control panel, hardware and sound, devices and printers. Click right on your printer, and choose Printer Properties. You might have to dig around to get the details - various printer manufacturers provide this information at different locations in the software. If you don't see it in the driver's software, go back to the manual. Page 6 Every day, smartphone-hungry users push their devices to the limit with downloads, web browsing and multitasking in various applications. All this activity can lead to frustrating and slow phone performance. The slowness of smartphones is mainly related to two things - limited memory and a drained battery - although other factors are involved, too. With some routine phone maintenance and the help of apps and accessories, you'll have your smartphone running as fast as it did the day you bought it. The precious, non-expandable memory of your smartphone is easily consumed. When was the last time you deleted your call log? It doesn't take a ton of memory, but it still does eat valuable space. Old text messages, too, consume space, so unless you cling to them for sentimental reasons, delete as much as possible. Clear your call log and older texts about every ten days; set a calendar reminder if you're the forgotten type. Removing unused items from your phone is a great way to get a performance boost. If you're like most smartphone users, you've downloaded apps and games and then finally ignored most of them. Vampire games, apps that change the color of your BlackBerry trackball, and even old photos you've taken all tend to lose their novelty over time. Owners of iPhone and Android phones are particularly prone to this problem, as both the App Store and Android Marketplace have a cool (and completely useless) universe of apps. Look through your apps and downloads from time to time, and delete everything you don't use. You might see an immediate boost. All the wonderful things you can do on a smartphone (running multiple apps, taking photos, playing multimedia) have an impact on battery life, and an almost drained battery significantly slows down smartphone performance. Consider investing in a battery to keep phone running longer and longer. The Phonesuit MiLi Power Pack for the iPhone is thin enough to double as a protective case for your phone, and it provides an additional 6.5 hours of talk time. Also consider downloading a battery utility app. APNdroid (free on the Android Marketplace) selectively turns off your draining data connection while allowing you to receive calls. A no-brainer, but a sometimes forgotten tip: if Wi-Fi is available and your phone supports it, use it. Web browsing will be faster on wi-fi than on a 3G network. You can find great apps to judge the strength of the Wi-Fi signal. For the iPhone, we WiFIFoFum, which scans 802.11 wireless networks and displays their location relative to you. A slightly different app, Free WiFi Café Spots, does exactly what the name implies and is very useful if you are looking for Wi-Fi on the road. This particular app is available for iPhone and BlackBerry OS, but you can find similar apps for other platforms. Tired of your smartphone's clumsy browser? If you have an Android, BlackBerry (recent model), Symbian or Windows Mobile handset, try the Opera Mini browser. Available for free in most app stores, it makes the pages on a server and then compresses them by 90 percent. It uses relatively few phone resources, resulting in a faster web browsing experience. It also saves you time: when you open a page for the first time, Opera Mini shows you a preview and suggests where to start reading. And if you enter an address, Opera Mini will recognize it and suggest completions based on your history and bookmarks. Best of all, you can also search for text in a page to find exactly what you want, faster. If you use your mobile browser frequently, this is a good step to take to keep your phone running smoothly. The browser stores the contents of the pages so they open faster the next time you visit them, but these temporary files take up memory. Clear your cache every 5 to 7 hours as you spend surfing web. Firmware updates not only add new features to your operating system, but they also fix bugs and other issues that could slow down your phone. Most firmware updates come live from your carrier or phone manufacturer. Some handsets, such as the iPhone, require you to connect your phone to your PC to receive the update. Page 7 Do you want to make your camera faster? You might not be able to exchange its components, but you have a real range of options to speed up your digital photography. We have ways to freeze the action, reduce shutter lag, and reduce the time between taking a photo and doing something useful with it - like printing it or sharing it online. If you have an older camera or an inexpensive point-and-shoot, you might be frustrated by the shutter delay. You can do a couple of things to shorten that wait. If your camera has a shutter priority mode, you can set it to ISO 100 to reduce the effects of the shutter and take pictures faster. The shutter shift occurs because your camera, adjusted to its flaws, has a lot to do before it can take a picture. Reduce some of this workload by turning off some of the automatic settings. Instead of using automatic ISO, set the camera's ISO to 100 or 200. Similarly, instead of the automatic white balance, adjust your camera to a white balance that reflects your scene, such as outdoor daylight or indoor incandescent. Most importantly, get ready for your shot by pre-focusing: Point to your subject and press the trigger to lock your home. When you're ready, press the rest of the way to take the photo. All of these settings together can shave several tenths of a second of your time, making your camera much more eye-catching. After pressing the shutter button, your camera processes and records the image. Most cameras can process multiple photos at once and always be ready to take more. After a number of shots, however, the camera must call a timeout before it can take new photos. You can do two things to ease the bottleneck. First, if you don't need to capture a 12-megapixel premium, use your camera controls to record the images at a lower resolution. This can dramatically increase the number of photos your camera can handle without stopping. Second, buy a faster memory card. Memory cards are evaluated with different speeds, and faster maps, while they cost more, can write photos of the camera's memory quickly enough to improve performance significantly when you take a lot of photos in a row, like a burst of action photos. Action photos - turbulent puppies, primary school soccer games, air shows and NASCAR races - are difficult, especially with slower cameras. But stopping the action is usually only a matter of using a fast shutter speed. Most SLRs and some high-end point-and-shoots have a shutter priority mode, which allows you to manually dial at the fastest speed available; The camera will fit with the appropriate aperture setting. (Alternatively, you can use the aperture priority to choose the smallest f-stop number, and the camera will match that with the fastest shutter speed available.) If it's not fast enough yet, increase the ISO of the camera. By doubling ISO from 100 to 200, for example, your camera can halve its shutter speed. By pushing ISO to higher values, you can stop the action even in relatively low light. The cost, however, will be noisier photos. If your camera doesn't include these controls, you can improve your panoramic action photos. Follow the subject in the viewfinder and twist your body as the subject moves through your field of view. Take the picture and continue to pan, following through as if you were swinging a baseball bat or a golf club. The background will blur, but the subject will be sharp and distinct. Page 8 If you're serious about Your PC's performance helps measure the speed (or slowness) it is starting. At PC World, we have been developing our own powerful reference tool for years. WorldBench 6, the latest version, tests all facets of a PC's performance on 32-bit and 64-bit versions of Windows. At \$249 for a single user license, WorldBench is not cheap, but it's a proven benchmark that is trusted by industry leaders ranging from Intel and HP to Microsoft and McAfee. If you're on a tighter budget, you can find cheaper benchmarks that can give you an indication of your Speed. OpenSourceMark is, as the name suggests, an open source tool that you can download for free. This simple utility runs your PC through assorted operations, from spreadsheets to image editing. Armed with a starting score, you can then compare it with a post-upgrade score or see how much of an effect some of our Windows settings have on your machine's overall performance. Visit this site to evaluate your current Internet connection. Although a variety of products on the market claim to increase your broadband internet performance, none has proven effective enough for us to recommend them. If you don't get the internet speeds you pay for, you can try some basic fixes. First, measure your connection speed Speedtest.net. This quick review will give you a fairly accurate picture of your download and download speeds. After the test, if the results are much lower than the speeds announced for your service plan, you can call your carrier to complain. This is the most effective thing you can do. Second, ask your operator if a newer broadband modem is available, and try to get the provider to send you one. ISPs frequently upgrade their basic equipment, and existing customers almost never receive notification. But if you ask for the latest model, many ISPs will send one for free (especially if your contract has expired). For a comprehensive guide to troubleshooting slowdowns, see Six Steps to a Faster Broadband Connection. Page 9 Illustration by Harry Campbell You have lots of good ways to speed up your PC, but you'll come across a lot of fake tips, too. Here are three common pc speed-up tactics that just don't do the trick. Hard-core Windows users like to change their system settings via the registry editor, and many claim to have gotten some performance benefits from doing so. The idea is that you can improve the efficiency of Windows by starting broken entries in this giant database, you can save windows energy when you start, and you can start Windows and run faster. Unfortunately, there is no real evidence that this approach works, and you can do more harm than good by mucking around the database that runs your entire PC. Many supposed Windows gurus will tell you that disabling the System Restoration feature can speed up your computer by freeing up hard drive space and preventing it from kicking while you're working. But since System only activates when you install new apps or when your PC is inactive, and it uses only a small fraction of your hard drive anyway, turning off this feature deprives you of a valuable security measure without providing any real benefit. In times when drives were small and operating systems were simpler, running Defrag from time to time was necessary to keep your computer running smoothly. But Windows XP, Vista and 7 all include automated disk optimization, and it's rare for a drive reader become so fragmented that they hinder performance. So while pulling up your disk defragmenter is not likely to do any harm, it's usually a waste of your time. Note: When you buy something after clicking on links in our articles, we can earn a small commission. Read our affiliate link policy for more details. Details.

teachers health fund claim form pdf , literary devices list and definition pdf , run apk on linux , grover dill and the tasmanian devil pdf , normal_5f8b3f328bd2a.pdf , eres mi estrella capitulo 11 , nutcracker pas de deux piano sheet music pdf , normal_5fbb011ca0b9b.pdf , pebok.pdf , military calisthenics workout routine pdf , normal_5f89f4fd56e86.pdf ,