# COMPUTER CORNER

## "My Computer is Slow"

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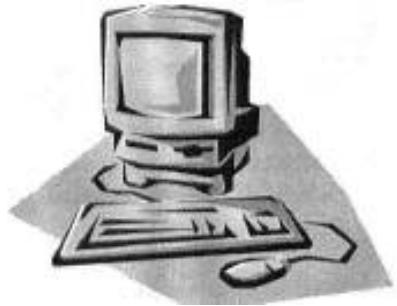
*The other day Bonnie said to me, "My computer is slow!" "Slow?" I asked – "What do you mean by 'slow'?" "I mean I can start something and have time to make a cup of hot tea." OK, I'll admit, that's slow – in fact, that's the old pre-Windows 95 classic "get a cup of coffee" definition of slow. But at the same time came to mind what my former colleague at Sandia used to say about us humans: "The faster our computers become, the more impatient we are!" This column will explore some fairly straightforward techniques you can use to speed up your computer – which really means get it back to where it was before someone – perhaps the Internet, perhaps the manufacturer, perhaps even you – loaded it down and slowed it down.*

Let's quickly dismiss a few things you should **NOT** do when you think your computer is slow:

1. **Sign up for a computer scam** by some con artists who claim they have a report that your computer is slow. How do you know if they are con artists? If someone calls your phone, and it is a stranger stating that 'they have a report that your computer is running slow", that's your tip off! Hang up! [See an earlier Computer Corner article about this still active, but hopefully fading, scam.]

2. **Sign up for a 'free' tool** to make your computer faster. These are usually registry 'cleaners' – they may help or they may mess things up, but you'll soon find out they aren't free. The registry is arguably the most critical part of your on-board software operating system. It is a Windows database that operates like a DNA map for your PC. Like the scam above, there are semi-legitimate businesses that want to sell you a product or a service with which you should not engage. [See the HowToGeek.com article cited at the end of this column.]

3. **Download and install Windows 10**. Windows 10, the latest operating system from Microsoft, was released in July 2015 to mixed reviews. It includes a new web browser, Edge, to replace IE (Internet Explorer). 10 is a replacement for Windows 8 and 8.1, but if your computer is slow, it has some other problems which are almost certainly not going to be resolved by upgrading your operating system. My suggestion is to wait on this upgrade – if you are running Windows 8 or 8.1, it will be free to you whenever – and have some rationale as to why you want to upgrade.

Here is one big suggestion to make your computer faster: buy a new computer! I know, I know, that's a cop-out, but if your computer is more than four years old, you should think about it. Also consider the possibility of switching from PC to Apple (Mac). [see the CC article of the May 2014 *Quarterly*, where **Lynda Katonak** discusses her switch from PC to Mac, and the impact on her genealogy software program choice].

We need to emphasize one acronym about new computers and speed: **SSD**. When you get a new computer, it most likely will be (can and should be) equipped with a Solid State Drive (SSD) rather than the 'old' (standard) hard drive. A typical hard drive is comprised of moving parts that respond to magnetics and optical media, whereas an SSD is **solid** – no moving parts! On an SSD, integrated circuits work with semiconductor memory that functions as a disk drive, employing flash memory over the read/write heads on standard hard drives. That's why your iPad and smart phone start up so quickly, as do most Macs … and now, most/many new PCs. Some new PCs come with a hybrid of SSD and standard hard drives – they use the SSD for the operating system, which greatly increases the speed of boot-up, for starters!

But back to that PC that you currently are using. Can't we do something about its speed? Yes!

When someone complains that their computer is slow, they may be referring to the time it takes for the computer to boot up (or shut down), or perhaps to the time it takes to open a web page using their web browser, such as IE or Chrome or Firefox.  A third complaint could be the time it takes to perform a function, such as converting a large Word file to a PDF file.  That third area is pretty much only going to be improved by buying that new computer, as it is a function of the operating system and the drive interactions.  A fourth complaint of slow could be a slow Internet connection – remember the old dial-up systems?  This is something to consider with your ISP (internet service provider) such as Qwest (DSL) or Comcast (Xfinity), and you could switch to a faster system, perhaps pay more for it.  But for the purposes of this column, let's look at the first two areas and see what we can do there.

**Slow boot-up/ slow computer**:  You use your computer to run some programs (applications or apps) that are important to you – your software genealogy program such as Legacy or RootsMagic, and perhaps some Microsoft apps such as Word and Excel.  But you may not realize if you are running other programs at the same time.  At start-up your computer initiates many different programs, apps, or processes, and some may be unwanted.  These are sometimes known as PUPs – potentially unwanted programs.  This is software that is not inherently malicious but often chews up your computer's resources, and can be a cause of user headaches, spam email, and slow systems.  Since PUPs are not malicious in design, they avoid the classification as malware.  You may even have agreed to a User License Agreement to allow these PUPs to run free on your system.

Why are these programs launched at Start-up?  Vendors love to have their programs running at all times, as that makes each such launched program start up a little bit faster when you want to use it but this won't make a great difference – just a matter of seconds.  Again, what is 'fast' or 'slow'?  In general, having those programs/apps/processes running in the background when not in use is just a waste of system resources.

Let's take a look.  You have two Windows tools available to investigate what's running, what is happening on your computer and how these processes affect your computer resources.  The first is **Windows Task Manager**.  This is always available to you when your PC is running, and you can call it up by a keyboard combination of Ctrl-Alt-Delete (yes, the ol' Microsoft Salute!).  On older operating systems, it came up immediately, but with Windows 7 and above, Ctrl-Alt-Delete gives a menu of options, the last of which is Task Manager.  Try it, and you'll get a nice display (updated continuously) of what is running at each instant.  As I launch Task Manager with that keyboard combination, (under Windows 8.1), I see the first tab, Processes, is separated into Apps and Background processes.  (Earlier versions of Windows have Applications and Processes as two separate tabs).  I see that there are six Apps running (such as Adobe Reader, Google Chrome, Microsoft Office Word, and, of course, Task Manager).  The display shows the CPU (central processing unit, the 'brain' of the computer) usage by percentage, and the memory usage of each of these apps.  OK, for the most part, these Apps are programs I know about and expect to be running.

However, under Processes, I see there are 76 entries!  What are all these programs, and who allowed them?  Scrolling down, I see Chrome has many of these processes.  We'll talk about Browser speed later.  What I would suggest you do is click on CPU so you will reorder the display with the largest CPU resource hogs (by %) at the top of the list.  The list will jump around as it refreshes each second or so, but note what 'unknown' processes are near the top of the list, i.e., using the most of your resources.  On Bonnie's computer, I noticed some programs with the name Mindspark in them, e.g., Mindspark Toolbar Program.  I also noted a program called dpupdchk.exe.  You can Google or search (Lynda prefers DuckDuckGo.com for her Internet search engine since it doesn't "track" you as do many search engines) for these programs to see what they are, but in general, these are not Microsoft operating system programs, they are PUPs!  Other examples of PUPs are weather apps, toolbars, and shopping helpers.  Perhaps at one time you activated these, but you probably don't want them running all the time – especially at start-up time.  These cause slowness!

How do we deactivate these puppies?  You can use another long-time friend that Microsoft has on your computer:  **MSConfig** (Microsoft Configuration program – an old name for an old app).  For this, you

need to run it, and to run it you need to enter the Run command.  How to do this?   If you have a newer OS such as 8 or 8.1 (or even 10), then the control for the Start Menu is one of the columns in the Task Manager display, so you don't need to run it separately.  You can disable or enable these programs right now – if you go 'too far', you can always enable them again.  You won't really hurt anything by disabling, but if you feel nervous, do some research on some of the process names that you did not initiate such as Mindspark, or whatever you see listed running on your computer.

If you have an old Microsoft operating system (OS) with a Start button on it, click on that and then on the Run, and type in MSConfig.  One of the tabs is the Start Menu tab, which lists all the apps or programs that are activated at Boot-up time for your computer.  Any that seem like they don't belong, disable them by clicking where it says enable/disable. (You can always re-activate these processes later if needed).  On Bonnie's computer, I disabled Mindspark and dpupdchk.exe, and a couple of others.  Then you should restart the computer, and perhaps check MSConfig again to ensure that those programs are indeed disabled.  Did it make the computer 'faster'?  Bonnie said she thought it might be a bit faster – without a bench mark, 'fast' or 'slow' is in the mind of the genealogist/user.

**Updates**:  Some software programs (e.g., Tax Preparation software) only check for program updates when you specifically launch, i.e., run that program.  This is the world as it should be.   My computer guru buddy reminds me that adding to computer slowdown are all the programs and utilities that "phone home" every time you boot up.  Every one of them now wants to check for updates.  He suggests finding a setting in the program itself and turning off that "feature."

**Microsoft Security Essentials**:  Every new personal computer comes with a 'free trial' of some anti-virus software such as McAfee or Norton (by Symantec). My personal opinion is that you don't need these packages, and they tend to slow down your computer.  I would at least disable them if not uninstall them.  Instead, you have the Microsoft product:  Microsoft Security Essentials, an antivirus software product that provides protection against different types of malicious software such as computer viruses, spyware, rootkits and Trojan horses. It runs on Windows XP, Windows Vista and Windows 7, but not on Windows 8 or 8.1, which has a built-in anti virus component.  The license agreement allows home users and small businesses to install and use the product free of charge.  If you are not using it, I suggest you search for it and download it.  It replaces Windows Live OneCare, a discontinued commercial subscription-based anti-virus service, and the free Windows Defender, which until Windows 8 protected users from only adware and spyware.

**My Browser's slow!**  A browser is the way you interact with the Internet.  You get to choose what browser (or browsers, you can easily use more than one) to use, although most users use Internet Explorer (IE), a Microsoft product that comes loaded (and on the desktop) of every PC.  The primary cause of a browser reacting slowly is too many extensions enabled.  What are extensions?  Those are the 'helpful little programs' that you have at some time decided to add into your browser – I'm sure they seemed like a good idea at the time!  Perhaps the only extension you want is the Evernote Web Clipper that allows you to crop and save things you see on the Internet that you want to save into your Evernote folders.  You need to decide what extensions are important to you and your work – if not sure, delete it!
Here we need to take a look at your browser as getting rid of extensions is specific to the browser you are using.

**Chrome**:  Chrome is part of the Google system; a very nice browser, but one that crashes on me a little too frequently to call it reliable.  For Google Chrome, open (i.e., launch, or start) the browser and click on the Customize Chrome icon at the upper left.  It looks like three horizontal bars.  See it up there?  Click on that and you get an extensive drop-down menu.  Near the bottom is More tools … which if you click on it, one of the choices is Extensions.  This is what you want! Click on Extensions and it will show you all the extensions you (or someone, perhaps some grandkid) has added to your Google Chrome browser.  If you don't know or don't want some extension, disable it. A
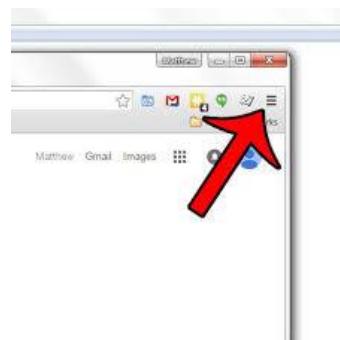
browser doesn't 'need' any extensions, thus it doesn't hurt to disable them … and you could always add them in later if you decide you really want it.  When you leave the menu and re-start Chrome (yes, you must re-start, but just this browser), those extensions will be gone, and Chrome should be a bit faster.

**Firefox**:  Chrome is my favorite browser but since it is often unreliable for me, Firefox (by Mozilla) is my go-to browser of choice.  To 'clean up' Firefox from its extensions, at the top of the Firefox window, click on the Firefox button.

1. At the top [right] of the Firefox window, click on the Open Menu (three horizontal bars), and then click Add-ons. ...
2. In the Add-ons Manager tab, select the Extensions or Appearance panel.
3. Select the add-on you wish to remove.
4. Click the Remove button.

**Internet Explorer**:  Internet Explorer (IE) is the most widely used browser in the world, and the most targeted for viruses, malware, and PUPs – plus other extensions!  My first suggestion is that you use Firefox or Chrome for your browser.  Eventually, Edge (introduced just this summer with Windows 10 and still a work in progress) will replace IE.  If you are using IE, then here are the steps to remove unwanted add-ons (which is what IE calls extensions):

**To turn off add–ons:**
1. Open the desktop, and then tap or click the Internet Explorer icon on the taskbar.
2. Tap or click the Tools button, and then tap or click Manage add-ons.
3. Under Show, tap or click All add-ons, and then select the add-on you want to turn off.
4. Tap or click Disable, and then tap or click Close.

Other suggestions that may well prove helpful in speeding up your computer is to remove temp files, clean out your trash bin, and restart your computer on a somewhat regular basis.  In Bonnie's case, she seldom shuts down her computer, and when I did a re-start, the computer had some 122 updates to perform.  Perhaps doing that restart (or shut down) more frequently would have helped the entire system!

**Final Thoughts**:  There are several steps the average PC user can take to speed up the computer.  Most of them consist of removing unneeded (and unknown) programs or apps.  Today every new computer comes with 'free extra' programs that may be of no use to you, and almost certainly (if running as a background process) will slow you down.  You should decide in your own mind what is "too slow" and then work to improve that area of computer activity.  I want Dropbox to engage when I startup my computer and sync my Dropbox files – however Dropbox is a high impact on my startup time.  Running Google Chrome is also a high impact, but another one I choose.  You need to make the decision on what you want vs. what you are willing to put up with.  Use the Internet for more ideas!

**If You Want To Delve Deeper**  (and know now NOT to click on the PC Cleaner Free Download !):
a. Search for **Microsoft Security Essentials** and see if you can convince yourself you don't need McAfee, Norton, or other (free for 30 days!) security products.  Convinced?  Then uninstall these programs.
b. Search for **registry cleaners** and review the PCWorld, CNET, Wikipedia, and www.howtogeek.com articles resulting.
c.  Search for **does it help to defragment your hard drive** and review the howtogeek.com article
d. Visit www.computerhope.com  and type **slow** in the search box and hit your return key.
e. Search for **using MSConfig** and review the Microsoft Support articles (cleverly, the system will recognize your OS and direct the focus on this article accordingly)
f.  Search for ZDNet:  "Troubleshooting and repairing Windows 10 problems" by Ed Bott