# Computers and Stuff.

## Sam Houliston.

## Ping.

Most of us have done a check to see what our internet connection speed is (you can do it HERE). The speed test tells us the download speed, the upload speed and also a ping result – but what is a ping?
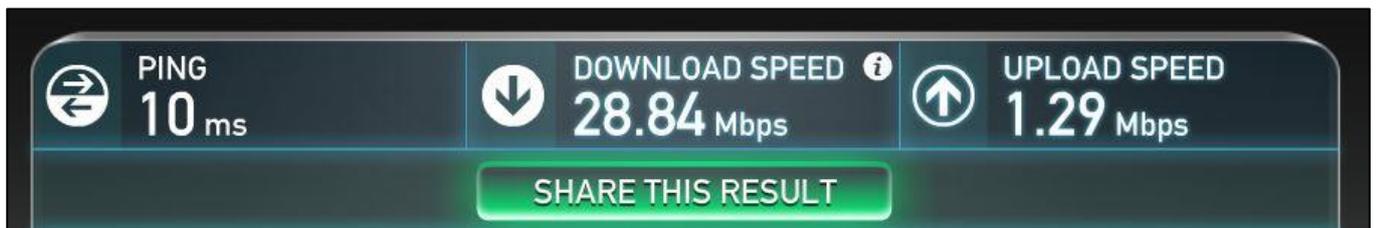


Ping is the name of a standard software utility (tool) used to test network connections. The ping 'number' is an indication of the reaction time of your connection, it shows how fast you get a response after you've sent out a request. A fast ping means a more responsive connection, especially in applications where timing is everything (like video games). Ping is measured in milliseconds (ms) – in thousands of a second.

A ping test first determines whether your computer can communicate with another computers over a network and if successful shows the delay between yours and the other computers. You can also use a ping test to troubleshoot connectivity problems with your home network. Microsoft Windows, Mac OS X and Linux contain a built-in ping utility for running ping tests. To execute a ping test using the Windows operating system you:

- Open the command prompt window (the old DOS). You can do this by clicking the start button, (bottom left in your screen), type cmd in the Run or Search window, then press Enter.
- Next to the C:\> prompt, type Ping followed by the web address of the site you wish to test (we've done a test on the Radschool site – see below).

```
C:\>ping radschool.org.au

Pinging radschool.org.au [202.124.241.203] with 32 bytes of data:
Reply from 202.124.241.203: bytes=32 time=74ms TTL=246
Reply from 202.124.241.203: bytes=32 time=29ms TTL=246
Reply from 202.124.241.203: bytes=32 time=31ms TTL=246
Reply from 202.124.241.203: bytes=32 time=39ms TTL=246

Ping statistics for 202.124.241.203:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 29ms, Maximum = 74ms, Average = 43ms

C:\>
```

If you are using an Apple powered machine you:

- Open Network Utility (located inside Applications > Utilities).
- Click Ping.
- Fill out the "Enter the network that you want to ping" field.
- Click Ping.

In either case, if the site is available, Ping will do 4 tests and then show you the minimum and maximum time each test took and will also show you an average. On some computers (particularly those running Linux), the standard ping program does not stop running after four request attempts but instead runs until the user ends it. That is useful for those wanting to monitor the status of a network connection over longer periods of time. In Microsoft Windows, type "ping -t" instead of "ping" at the command line to launch the program in this continuously running mode (and use the Control-C to stop it). The TTL figure *(Time-to-Live)* is a value in an Internet Protocol (IP) packet that tells a network router whether or not the packet has been in the network too long and should be discarded. (Not worth worrying yourself about).

A good broadband Internet connection (wired or wireless) typically results in ping test time of less than 100 ms, often less than 30 ms. A satellite Internet connection is normally quite a bit slower. Interestingly, for a connection to be called "Broadband" it should really have a download

speed of 15 megabits/second, although in a digitally backward country like Australia we often prefer to ignore this.

In late 1996 and early 1997, a flaw in the implementation of networking in some operating systems became well-known and popularized by hackers as a way to crash computers remotely over the Internet. The "Ping of Death" attack was relatively easy to carry out and very dangerous due to its high probability of success. The "Ping of Death" attack involved sending IP packets of a size greater than 65,535 bytes to the target computer. IP packets of this size are illegal, but applications can be built that are capable of creating them. Carefully programmed operating systems could detect and safely handle illegal IP packets, but some failed to do this. Operating system vendors quickly devised patches to avoid the "Ping of Death" and it is no longer a threat on today's computer networks. Still, many Web sites have kept the convention of blocking ping messages at their firewalls to avoid similar denial of service attacks.

The download speed, in the speed test above, is an indication on how fast you can pull data from the server to you. Most connections are designed to download much faster than they upload, since the majority of online activity, like loading web pages or streaming videos, consists of downloads. Download speed is measured in megabits per second (Mbps).

The upload speed is how fast you send data from you to others. Uploading is necessary for sending big files via email, or in using video-chat to talk to someone else online (since you have to send your video feed to them). Upload speed is also measured in megabits per second

Here are the recommended connection speeds for many popular Internet activities. If you are doing multiple things at once online or sharing a connection with multiple computers, then these recommended speeds may not be enough. All speeds are provided in megabits per second (Mbps).

### Skype
For voice calls: 0.1 Mbps download / 0.1 Mbps upload
For video calls: 0.5 Mbps download / 0.5 Mbps upload
For HD video calls: 1.5 Mbps download / 1.5 Mbps upload

An important note: these connection speed requirements include downloading and uploading at the same time. Since Speedtest.net tests download and upload separately for accuracy, your results will need to be higher than the numbers provided above. For example, your upload speed may be 10 Mbps in the Speedtest.net result, but may go down to 5 Mbps while your connection is downloading something at the same time.

### Netflix
Recommended broadband connection speed: 1.5 Mbps download
For HD quality: 5.0 Mbps download

### YouTube
Recommended: at least 0.5 Mbps download
YouTube offers several quality levels for videos. The lower numbers (360p) indicate that the video is smaller and uses less bandwidth, but is also less detailed. The more detailed the video (480p, 720p, or 1080p), the more bandwidth it takes to stream. Choose the highest video quality that allows you to stream without repeated stops and starts.

### Online Video Games
Recommended: a low ping (less than 100 ms)  For playing video games online, download and upload don't matter as much as ping which measures how responsive your connection is. The lower the ping to servers and other players, the less lag you will have in your game. To lower ping, connect your computer to the router using ethernet (a cable) instead of Wi-Fi and avoid downloading/uploading files while playing games.

# History.

As you surf the web, your browser helpfully remembers lots of information for you – sites you've visited, files you've downloaded and more. All of this information is called your history and over time it can clog up and slow down your computer. You can quite easily and harmlessly delete all this information and depending on how long it's been since it was last done, this *could* speed up your computer considerably.

To delete history from your browser you:

**In Firefox:**     Click the menu button ≡, choose "History", and then "Clear Recent History". In the "Time range to clean:" select Everything. Click "Details" then select the items you wish to delete

**In IE9 – IE11:**     Click the Tools button ⚙, click "Safety", then "Delete browsing history". You can select everything except for Preserve Favorites website data and Passwords.

**Safari:**     Click the Safari menu, then click "Clear History and Website Data". Select "All History" then click "Clear History".

**Chrome:**     Click the menu button ≡, then "History". Click "Clear browsing Data". From the drop down menu click the items you want to delete. Suggest you do not clear Passwords or Autofull form data.

# Prevent Windows Update from forcibly rebooting your Computer.

We've all been at our computer when the Windows Update dialog pops up and tells us to reboot our computer. I've become convinced that this feature has been designed to detect when we are flat out and only pop up at that moment. The real problem comes into play when Windows gets tired of reminding us and says that the computer is going to reboot in 5 minutes, and the only way you can prevent the inevitable is to temporarily disable Windows Update.
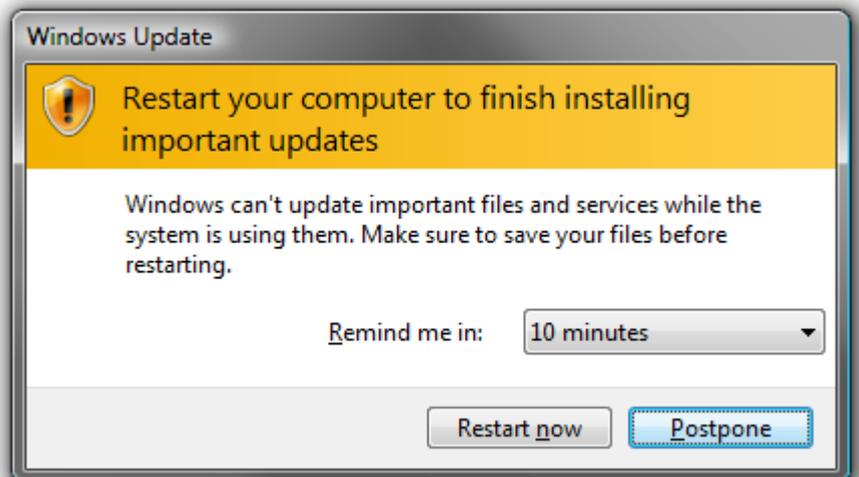
You can do this by opening an administrative mode command prompt. Click Start, then "All Programs" then click the "Accessories" directory. Right Click "Command Prompt", then click "Run as Administrator".

When the Dos (Command Prompt) opens, type the following (including the " "): **net stop "windows update"** (see below).

This will stop the Windows Update service, but don't worry, it's only temporary as next time you reboot your Update Service will be active again.

But back to the restart problem. There's a couple of ways that you can disable this behaviour, you'll still get the prompt, but it won't force you to shut down.

This trick should work for all versions of Windows.

**Manual Registry Hack.**

If you're not too smart with computers, don't try this:

Open up regedit.exe through the start menu Search or Run box and navigate down to the following key, creating new keys if they don't exist.

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Windows\WindowsUpdate\AU
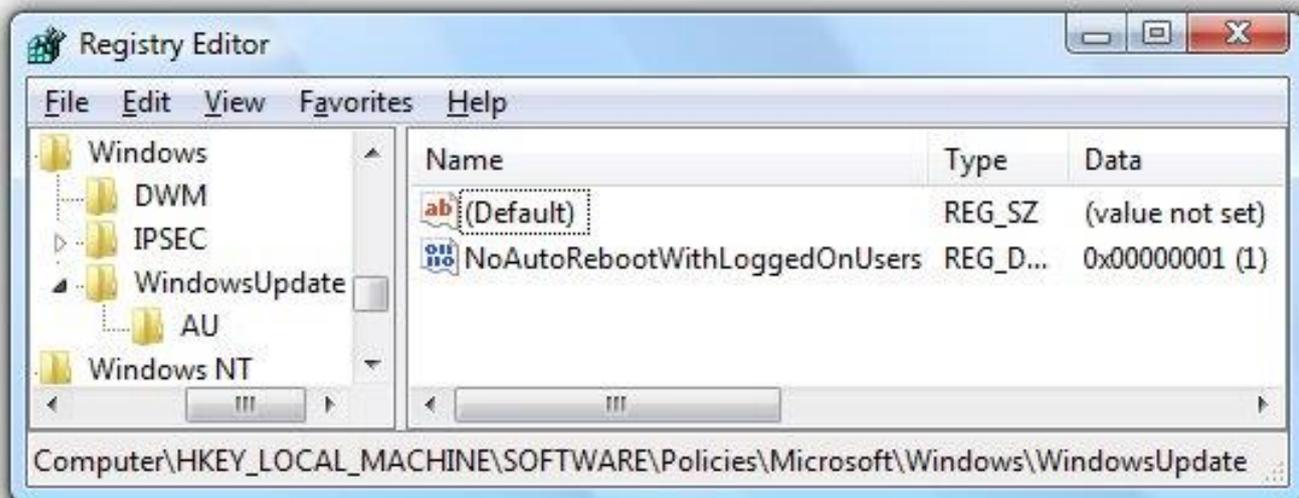


Create a new 32-bit DWORD value named NoAutoRebootWithLoggedOnUsers and give it a value of 1 to prevent automatic reboot while users are logged on. This is a permanent fix, if you want to put things back to the way they were, you will have to drill into the Registry and delete this line.

**Auto version.**

If you'd rather not mess with the registry, you can use a small utility created by the people at Intelliadmin which will make the changes for you.

Make sure you're logged onto the internet, then click HERE. If you are using Vista, make sure you right-click it and run it as administrator. This will open a file for you and you will see the window at right. You use the routine to both disable or enable the auto reboot feature.

This works on the Professional editions of XP and all versions of Windows after XP.
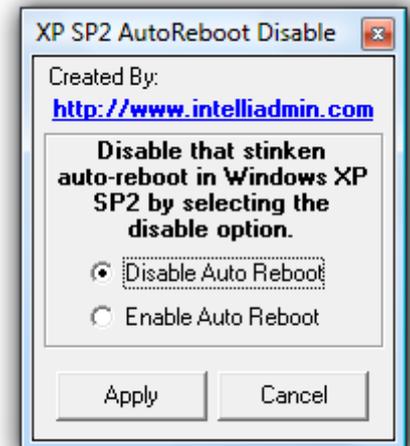
Whichever method you use, I would strongly recommend that you NEVER turn off the Automatic Update facility on your computer. You can delay the restart, but always allow Windows to download any and all updates. Every now and then I come across someone who proudly declares that they don't do any of those troublesome updates and privately I think 'what an idiot', but of course I don't say that. From time to time I go into Windows update to see what optional updates are available, often these are updates that make Windows run better, but because there is no security implication they aren't installed by default. Just tick the checkboxes and click Install. The downside of Windows updating-related activity is that it can use a lot of your computer resources at a time when you don't want it to. A great deal of this activity happens in the first half hour after startup, so if you can organise things so that you start your PC half an hour before you want to use it you'll often be ahead.

# Renovating??

With house prices at an all-time low and renovation shows like 'The Block' and 'House Rules' having an overwhelming success, it has never been a better time to look at your own home and assess the rooms that need improvement. The bathroom and laundry used to be very practical areas, that didn't get much attention to the way they looked.

What trends are now showing is that with a combination of clever interior design and affordable bathroom products, a bathroom can be transformed into a sanctuary.  Along with the kitchen, the bathroom is now one of the most pivotal rooms when trying to sell a home. Without having

to spend a fortune, a bathroom upgrade can even increase the sale price of your home by about 10%.

Gone are the days of showering over a bath tub while frameless glass showers continue to be one of the most popular items in a modern bathroom. Some people prefer an enclosed frameless shower while others just prefer a singular panel, either way this popular choice looks very clean, sophisticated and opens the bathroom up.



A lot of people ask, do you think I should keep the bath or just have a larger wet area? This is up to personal preference; however we would always recommend keeping at least one bath in the home if space permits. Consider the next 10 years – do you expect to move or sell your

home? Will you have children or elderly people present? Try to think through all options before you make the decision that is best for you. Freestanding baths are still a very popular purchase and are often used as a feature within the room.

An important thing to consider is how much storage space you need. The vanity is one of the biggest decisions as you want it to be highly functional as well as good looking. Wall hung vanities have been the popular choice over recent years although a floor mount vanity will generally have more storage. If you need excess storage then have a think about integrating a mirrored cabinet or having a side cabinet in the room too.



The mood of a bathroom is set with the choice of tile. The modern bathroom opts for floor to ceiling tiles so it is more crucial than ever, to choose wisely. The monochrome palette has been a popular choice of those who take a particular interest in the recent renovation shows. Some prefer a warmer style and opt for natural looking, stone coloured tiles. Feature walls are also very popular and the possibilities are endless but we are seeing a lot of exposed brick, textured tiles to add depth.

A lot of people find it overwhelming thinking about renovating their bathroom. The process starts to flow with your initial research. There are a huge amount of resources online to get a feel for the style you would like to achieve or alternatively there is still a wide range of magazines on the market.

Once you have an idea of the style, you have to think practically. Measure the area and take note of where the pluming is currently. Think about the current area – does the layout work for you? What would you like to change and what do you think should stay the same?

Now is the time to start looking at product, bearing in mind the style and space constraints. At this stage, we would suggest to visit your local Highgrove Bathrooms store to start making your ideas, a reality. Our friendly sales people will be able to consider your personal taste and room measurements to help you pick out some products from our wide range in store.



It is important in this day and age to realise that cheaper doesn't necessarily mean inferior quality. Highgrove Bathrooms pride ourselves in offering great looking, high quality products at an affordable rate. We can do this as we import the product ourselves, cutting out the middle

man and selling directly to the public via our 25 stores Australia-wide. This, along with our friendly customer service and product on hand, is why Highgrove Bathrooms is the fastest growing bathroom company to date.

Providing quality bathroom products since 2004, Highgrove Bathrooms have just celebrated our 10th Birthday in the industry. We have strived to be at the forefront of bathroom design by closely watching the current and future bathroom trends over the duration.

# 15% discount.

Being an Australian owned company, the business owners would like to pass on a price discount to all ADF personnel who hold a DVA Health-care Card (either Orange, White or Gold) as a token of their appreciation for the dedication and service to Australia provided by these ADF personnel. As such, the owners hereby offer the gift of a 15% discount off retail prices to all DVA Health Card holders (and their families) on any product, in any Highgrove Bathrooms' store. This offer is value until 31 December 2015.

To receive 15% discount, please present your DVA health card when you purchase/order any item. Click HERE for the store closest to you

## NBN

The NBN is coming, it is being laid out across Australia and a few areas have it already. If you haven't and would like to know when it will pass your front door, click HERE.

## Make Windows 7 or 8 Not Require a Password on WakeUp.

By default, after your computer has been to sleep, Windows 7 and/or Windows 8 requires you to enter your password on wake-up. This can be very annoying but luckily, you can fix this.
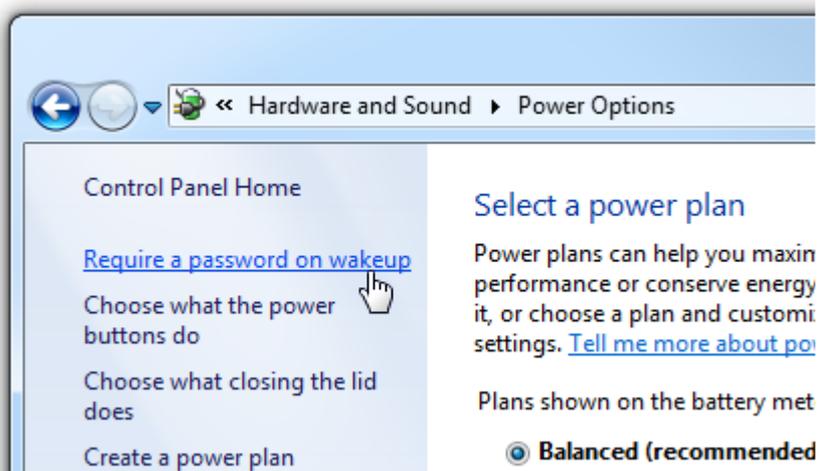
Here's how!!

Open your Control Panel, then head for Power Options. Click "Require a password on wakeup" on the left-hand side.

The Password settings will be greyed out, so first you will need to click the "Change settings that are currently unavailable" link…see below.

This removes the Grey area so now you can click the "Don't require a password" button then make sure you click "Save changes" (see right).

Next time you reboot you won't have to re-enter your password when your computer wakes up.

## Windows 8/8.1

If you have a laptop with a touch screen, and you're running Windows 8/8.1, you can change your log-in password from one you have to type in, to a "symbol" drawn on your screen.

Here's how:

Open Windows 8 and click on or touch (click) PC Settings. In the blue window on the left hand side, click "Accounts", then click "Sign-In Options". Under **Picture Password**, click "ADD". Enter your account password then the window at right will appear, click "Choose Picture" and browse through your pictures library for an image that you like.

Select your chosen image and click or tap "Open" to enlarge it on screen. Click or tap and drag it around the viewable window until you like the framing and click or tap "Use this picture."
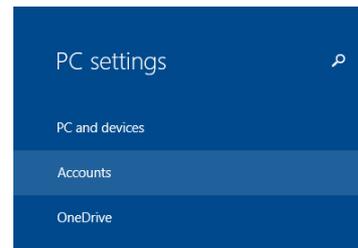
Complete a series of three gestures over your chosen image to form an unlock sequence. You can use a combination of lines, circles or taps anywhere on the image. Either click or tap and drag to create lines and circles or use your finger on a touch screen. Make sure you remember the gestures you use, their placement on the image and their order of completion. Complete the series of gestures again to prove you remember them and you're all set. If you messed up, don't panic. Just hit "Start over."

Click or tap "Finish" to return to PC Settings once you've successfully completed the procedure.

**How to Create a PIN**

If you would rather use a pin to open your computer, just like on an ATM, as long as you have Windows 8/8.1 you can quite easily.

Open PC Settings as described above. Click "Accounts", then click "Sign-In Options" then under **PIN**, click "ADD". Enter your account password when prompted then enter your chosen four-digit number in both of the provided fields and click or tap "Finish."

That's all there is to it.

# How to Enable Delete Confirmation Dialog Box in Windows 8 and Later?

When Windows 8 was under development, Microsoft disabled the delete confirmation dialog box, that's the little bit that pops up and asks you if you really want to delete a file after you've hit the Delete button. If you're like most people and still using Windows 7 you wouldn't have

noticed it, but now that Microsoft has offered everyone Windows 10 for free, when you upgrade you will get a shock as the minute you hit the Delete button the folder/photo/movie/song is gone, well, it's not really gone, it's just in the Recycle Bin and if you want it back you just restore it. A lot of people screamed about this so Microsoft has relented and if you want that facility back here's how you do it. (This works in Windows 8 too).

1. Right-click on the Recycle Bin icon on Desktop and select Properties.
2. Now enable "Display delete confirmation dialog" option and apply the changes.
3. That's it. It'll re-enable the confirmation dialog box and now Windows will always ask for your confirmation before moving a file or folder to Recycle Bin.

You might find that the "Display delete confirmation dialog" is greyed out, in other words, the option is disabled and can't be enabled. If this happens to you, you can enable or disable this option as below:

1. Press "WIN+R" key combination to launch RUN dialog box, then type **gpedit.msc** and press Enter. It'll open Group Policy Editor.
2. In the left hand window, go to: User Configuration > Administrative Templates > Windows Components > Windows Explorer / File Explorer.
3. In right-side window, double-click on "Display confirmation dialog when deleting files" option and set its value to "Enabled".
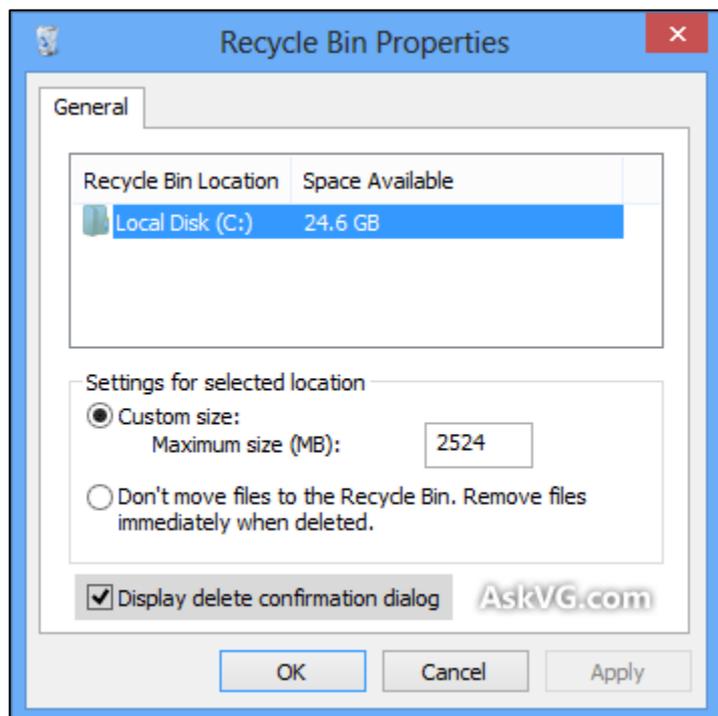
You can also do it using the Registry Editor (but only if you know what you're doing!!)

1. Type regedit in RUN dialog box and press Enter. It'll open Registry Editor.
2. Now go to following key:
   HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\Explorer
3. In right-side window, create a new DWORD ConfirmFileDelete and set its value to 1 to enable confirmation dialog box or set it to 0 to disable confirmation dialog box.

Simple, wasn't it?