

Computer Specs

1. Specifications (Specs)

Specifications are the pieces of info about what's in your computer. Some is about the **hardware** which means the things the computer is built from that you can touch (it hurts if you kick it!). Other info is about the **software** which is the means of making the **hardware** in the computer work as you want it to. We start with an **Overview**. Para 2 goes into detail.

1.1 Abbreviations, names and acronyms

1. If you know what these mean it helps to understand the language of computers which is a language of its own.

1.2 Why do I need to know the Specs?

1. It's helpful if something goes wrong and you need to talk to someone to explain it if you know what your computer consists of.



2. If you know what's in the computer then there is a chance that you may be able to understand more when someone asks you a question about it.

1.3 How do I find the Specs?

There are 2 main places which we shall explain later

1. Control Panel - System
2. Accessories – System Tools/System Information

1.4 What do the Specs mean?

1. A lot of what you find won't mean much and is likely to be too detailed for what you want. However if you know where to find something then it's always useful.

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2. Specifications Details

2.1 Abbreviations, names and acronyms

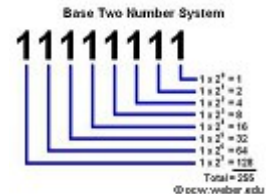
Here are some of these

1. Bit – a single piece of **data** which can be a 1 or a 0 (sometimes referred to as true or false).

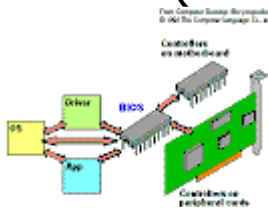
No, not this sort of (drill) bit!



2. Byte – a number of bits, e.g. 8, making up a word of **data**.



3. BIOS (Basic Input/Output System) – these are the instructions to components on the PC which are executed on switch on and are stored on the BIOS ROM. This starts up the Operating System.



4. CPU – Central Processing Unit. This is another name for the Processor.



5. Download – this is a means of getting **programs** or documents or **data** onto your computer by connecting to the Internet and allowing your computer to receive them.



6. Error Message – this is a message, often shown in a separate small window, which alerts the user to an error which occurred whilst trying to carry out some course of action. Often the computer beeps to draw attention to it. Sometimes a course of action will be given.



7. FTP - File Transfer Protocol. This a standard for transferring **files** between computers.



8. Graphics (or Video) card – this is the piece of **hardware** in the computer which drives the display. For games the faster the better.



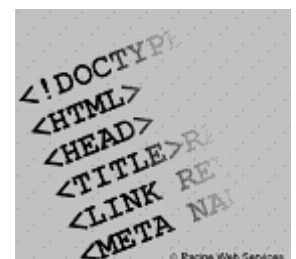
9. **Hardware** – the individual parts that the computer is made of. These include the Processor, Memory, Hard Disk, CD-ROM, Keyboard and Monitor.



10. HDD - Hard Disk Drive - this is the **hardware** which stores your **programs** and **files** so that they can be used by the computer. They are available to run at different speeds. The faster they run the quicker the computer will load (i.e. start) **programs** or retrieve **data**.



11. HTML - HyperText Markup Language. This is the language used in creating websites so they can be seen on the internet.



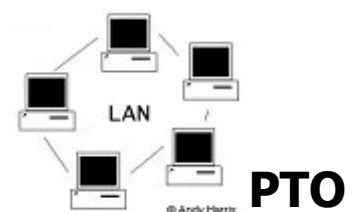
12. HTTP - HyperText Transfer Protocol. This is the method of transferring website **data** and **files** across the web.



13. ISP - Internet Service Provider. A company which provides your internet and broadband connections e.g. BT, Virgin, Pipex.



14. LAN - Local Area Network. This is a network of computers connected together by cable.



15. Memory – these are the stores within the computer which hold information whether **data** or **files** or **programs**. See Pass IT On document S1 “Stores – where's my data?”



16. Operating System – this is the **software** which runs the computer e.g. Windows or Linux. Some are known as 32-bit or 64-bit Operating Systems which is a way of saying how big are the **data** words used by the Operating System and hence how efficiently they operate.



17. PATA – Parallel AT Attachment (AT, short for Advanced Technology, is an early term for type of PC made by IBM).



This is a standard for connecting storage devices such as hard disk drives, floppy disk drives, solid-state drives, and CD-ROM drives in computers.

18. PC – Personal Computer. This is a picture of a Desktop PC with some peripherals.



19. Peripherals – these are the pieces of **hardware** that you might attach to your computer e.g. printer, scanner, monitor, keyboard or web-camera.



20. Processor – the heart of the computer which executes the **software** instructions to make the computer work. See also CPU above.

21. Processor Speed – how fast the processor works measured in GHz, (1GHz is 1000million cycles per second), which determines how fast your computer reacts to the **programs** you are running. The faster it is the quicker the computer will carry out operations. Nowadays it should be something like 2GHz or more.



22. **Program** – e.g. Open Office, Explorer and games which you and then run on the computer to make it do what you want to achieve.



Internet load onto

23. RAM – Random Access Memory. This is memory whose contents change, so is for temporary storage. It is used to load the **program** and **data** being currently used. You may come across different types e.g. SDR i.e single data rate, DDR i.e. double data rate RAM. There are DDR2 and DDR3 as well. Each is twice as fast (i.e. better) as the previous.



24. ROM - Read Only Memory. This is memory whose contents are fixed and can't be changed. It consists of an electronic component (chip) on a board inside the PC. One example is the chip used to store the BIOS.



25. SATA - Serial Advanced Technology Attachment. This is a standard (faster than PATA) for connecting to mass storage devices such as hard disk drives and optical drives.



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26. **Software** – the **programs** which you use to make the **hardware** work e.g. Picasa.



27. Speed – see Processor Speed above.

Or it could be the speed of the hard drive in RPM (revolutions per minute), maybe 5,400RPM to 12,000RPM. The higher the better.

Or the speed of RAM determines how fast **data** can be stored or retrieved. It is measured in MHz (the higher the better) or nS (the lower the better) e.g. 133MHz equates to 8nS. Alternatively the RAM speed can be measured in MBps or MBs (Mega Bytes per Second), not to be confused with Mbps or Mbs (Megabits per Second) which refers to how fast **data** is being transferred.

28. URL - Uniform Resource Locator. This is another name for a web address.



29. USB – Universal Serial Bus – this is the method of connecting things like printers and other peripherals to your computer using a standard connector.



30. USB Drive – this is another name for a Memory Stick. It is a store which inserts into a USB connector on the computer.



31. VGA – Video Graphics Array. This is a means and format for sending information from the PC to the Display Monitor with a certain resolution. If your PC has a connector like this then it's got a VGA output.



2.2 Specifications and how to find them

There are 2 places, the Control Panel and System Information.

2.2.1 Control Panel

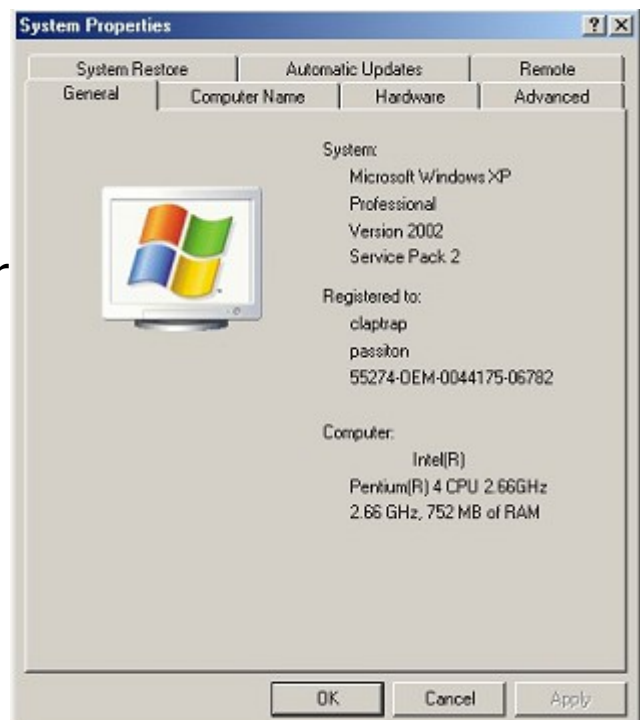
1. The first place to try is the Control Panel.
2. Left-click on Start and then on Control Panel.



3. Then you double-click on System to get more information.

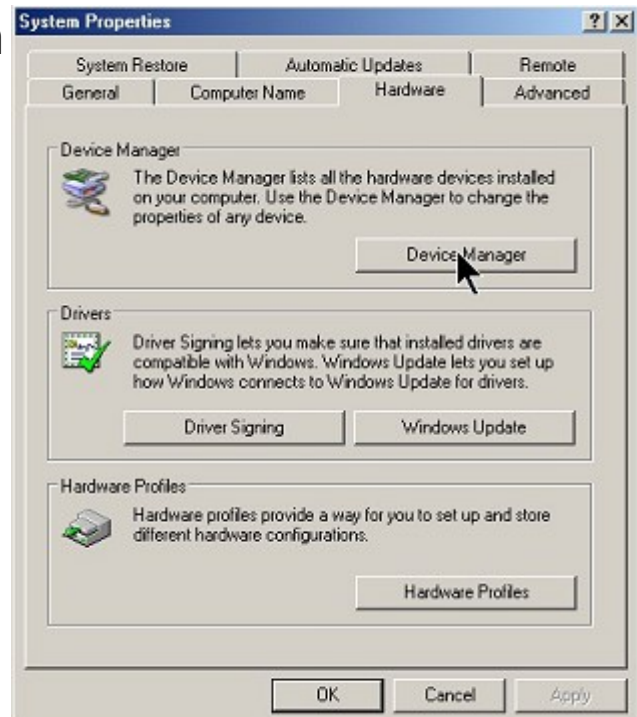


4. You will be presented with a System Properties window with a number of tabs to select from. Each of these give information about the computer and its current settings as you can see if you try.



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5. For example if you left-click on the Hardware tab and then on Device Manager you will get information on the **hardware** fitted to your computer.

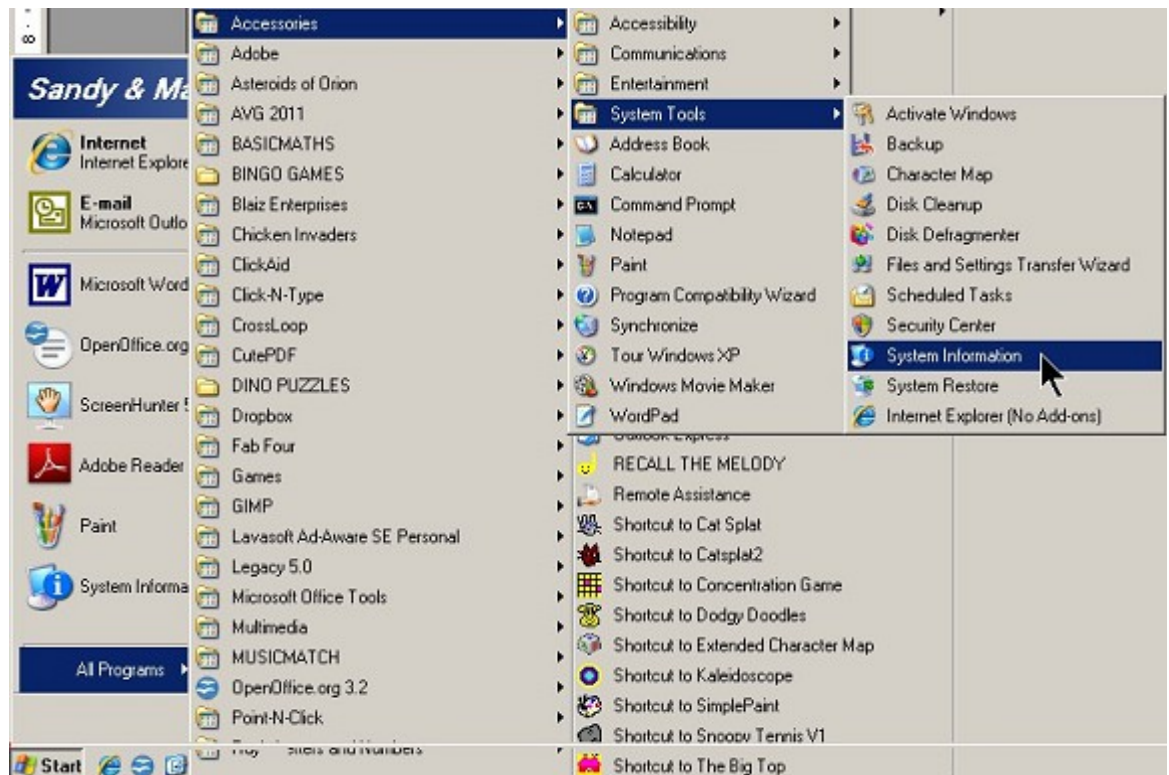


6. Here we have shown how to get information about the Processor by left-clicking on the + next to Processors. It shows the maker, type and speed.



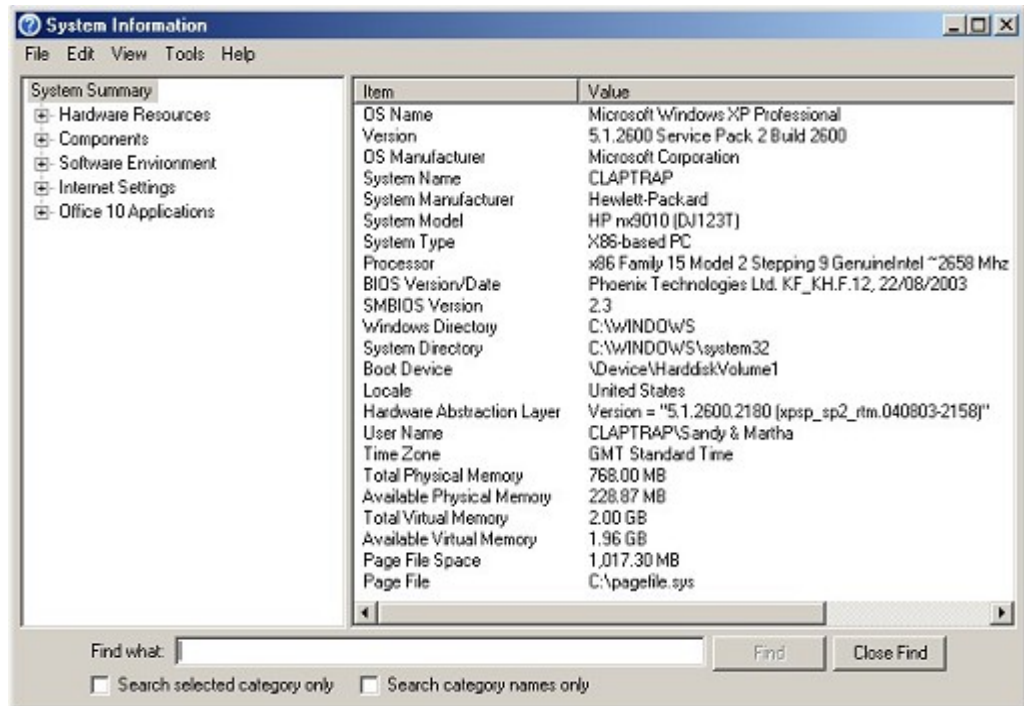
2.2.2 System Information

1. The second place to try is the Accessories – System Tools/System Information.
2. Left-click on Start and holding the mouse button down slide to All Programs then still keeping it pressed slide to Accessories and then to System Tools and then to System Information.



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3. You will be presented with a System Information window. Some of this information will be the same as found elsewhere and some is different.



4. By left-clicking on one of the icons in the left hand column you can get more information but you may not need to get into that detail unless you are specifically asked a question about something.