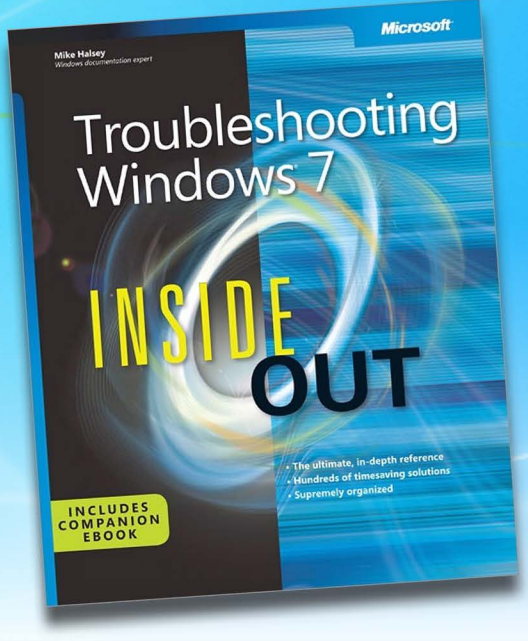
by the author of ***Troubleshooting Windows 7 Inside Out*** from Microsoft Press

9/10 I highly recommend it! WinUser.co.uk

★★★★★ Contains a TON of useful information
Definitely recommend! reader review

★★★★★ Must have book for troubleshooting Windows 7
reader review

The Windows 7 Power Users Guide



by Mike Halsey MVP

TheLongClimb.com

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First published in 2009 by Mike Halsey
www.thelongclimb.com

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Rory Webster

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Finally a big thank you goes out to my mother, whose desire to find out more about how Windows works was all the prompting I needed to write this book.

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Part 1

Starting

The Windows 7 Power Users Guide

by Mike Halsey

INTRODUCTION

Microsoft Windows 7 offers a great many advanced features and is highly configurable. There is a great deal you can do to customise your system, maintain it, simplify using it and make it a more pleasurable experience all round.

This guide will take you through everything you need to know in easy steps with *quick tips* and *step-by-step guides*.

WHO IS THIS GUIDE FOR?

This guide is for non-technical, *casual*, users of Windows. If you use a PC at home for sending and receiving email, browsing the web and maybe odd jobs like writing letters and editing digital photographs then this is the book for you.

Any features for advanced users will be highlighted with this logo.

WHAT IS WINDOWS 7?

Windows 7 is the latest in a long line of different versions of Microsoft's operating system.

Windows 7 builds on the success of operating systems such as Windows XP and fixes many of the problems associated with Windows Vista. You can find out more at...

www.windows7.com

WINDOWS 7 EDITIONS

As with all editions of Windows, Windows 7 comes in different product versions. The ones you'll encounter will be ***Starter***, ***Home Premium***, the most common edition and ***Professional*** for advanced systems and businesses. ***Ultimate*** will contain every feature.

Not all features are available in every product edition. In this guide I will display icons to show what versions features are available in.

WHY SHOULD I INSTALL WINDOWS 7?

Windows 7 makes great leaps over previous versions of Windows. It is significantly more secure than *Windows XP* and *Windows Vista*.

EASE OF ACCESS AND DISABILITIES HELP

Look for this icon within this book for information on how to use the ease of access features.

These are here to help people who may have trouble using the Windows 7 and software because they have trouble reading small text, listening for prompts or using a keyboard and mouse.

QUICK TIP

The benefits of Windows 7 over XP and Vista

I have Windows XP : Windows 7 is considerably more secure and safer to use on the internet than Windows XP. For this reason alone you should consider upgrading to Windows 7. Use the *upgrade checker* on the Microsoft website to see if your PC will run it.

I have Windows Vista : Windows 7 fixes almost all of the performance issues that caused Windows Vista to run slowly. The security system, User Account Control (UAC) is also now considerably less annoying. Any PC running Windows Vista will happily run Windows 7.

Part 2

Installing

The Windows 7 Power Users Guide

by Mike Halsey

Contents

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QUICK TIP

What is the difference between a clean install and an upgrade

If you have files on your computer that aren't backed up then you should opt for an upgrade. This will keep all your files intact. However any problems that exist on your PC may also be there after installing Windows 7.

A clean install will delete all the files on your drive and you will also have to reinstall all of your programs.

Not every edition of Windows will allow you to upgrade, some will force you to do a clean install

It is always a good idea to back up all your files and data first.

WINDOWS VERSIONS

As with all editions of Windows, Windows 7 comes in different product versions. The ones you'll encounter will be ***Starter***, ***Home Premium***, the most common edition and ***Professional*** for advanced systems and businesses. ***Ultimate*** will contain every feature.

In this guide I will display icons for the different features to say in which versions of Windows 7 they are available.

Each version of Windows 7 contains more features than the editions below it, a superset of each one. *Home Basic* lacks the glass *aero* effects and Media Centre but is fine for low-power computers. *Home Premium* will contain all the features a home user needs.

Each version of Windows 7 contains more features than the one below it.

Later in this chapter is a list of the most common features in Windows 7, broken down by each edition of the operating system.

WILL MY PC RUN WINDOWS 7?

You can find an upgrade checker to find this out from Microsoft for Windows 7 at..

www.windows7.com

...run this software under Windows XP or Windows Vista.

CLEAN INSTALL OR UPGRADE?

When you upgrade your copy of Windows all of your files, data and programs will remain intact. However not every version of Windows 7 will allow you to upgrade. **You cannot upgrade from any copy of Windows XP** and you cannot upgrade from a copy of Windows Vista that is a higher product edition to the version of Windows 7 you are installing. For example, you cannot upgrade Windows Vista *Ultimate* to Windows 7 *Home Premium*.

The best advice is always to make sure all your files and data are backed up, see the **Guaranteeing** chapter of this book for how to do this, and do a clean install. This will make sure you get the fastest, least problematic installation possible. Upgrading can cause any problems you currently have with your copy of Windows to also exist after the upgrade to Windows 7.

UPGRADING FROM WINDOWS XP

Windows 7 will not allow you perform an in-place upgrade from any edition of Windows XP, trying to do so will give you an error message.

On the Windows 7 DVD is a program called *Windows Easy Transfer* that you can run in Windows XP (and Vista) to back up out files and settings to another location, either an external hard disk or another partition, that can later be restored after performing a clean installation of Windows 7. *Getting Started* in the Start Menu has an option to restore this.

UPGRADING FROM WINDOWS VISTA

You can perform an in-place upgrade from Windows Vista. The following versions will allow an upgrade depending on what editions of Vista and Windows 7 you are upgrading from and to...

UPGRADING FROM OTHER VERSIONS

Windows 7 will not allow upgrading from other versions of Windows. This includes all versions before Windows XP (*Windows ME, Windows 98 etc.)* and all versions of Windows Server.

WHAT IS 64 BIT WINDOWS?

Each edition of Windows 7 comes in two flavours, 32 bit and 64 bit. The edition you have will be printed on your install DVD. Most new PCs now come with the 64 bit version of the operating system pre-installed, however there can be a downside.

While the 64 bit versions of Windows offer better security and stability, there is still hardware and software that won't run on it.

If you have the choice of which version to buy then opt for the 32 bit version. You should only buy the 64 bit version of Windows 7 at this stage if it has been pre-installed on your PC.

This is the best way to ensure that all your hardware and programs will work properly.

UPGRADING FROM 32 TO 64 BIT

Windows won't allow you to upgrade *in-place* from a 32 bit version of Windows to a 64 bit version, nor will it allow you to perform an upgrade the other way around. To change between these versions you will have to perform a clean install.

CLEAN INSTALL FROM UPGRADE ONLY PRODUCT KEY

It is possible to perform a clean install of Windows 7 with a product key that will only allow you to upgrade it.

To do this do a clean install Windows once *without* entering a product key, it will allow you to do this. Now run the installer again and perform an *upgrade* over the clean install you have just done. Your product key will now be accepted as valid for installation.

Windows Vista	Windows 7
Home Basic	Home Basic, Home Premium, Professional, Ultimate
Home Premium	Home Premium, Professional, Ultimate
Business	Professional, Ultimate
Ultimate	Ultimate

QUICK TIP

32 or 64 bit?

The difference between 32 and 64 bit software is the size of the numbers the PC can do calculations on.

64 bit operating systems are slightly faster because of this.

Windows 7 also includes additional security functionality that makes the 64 bit version of the operating system more secure.

On the downside older hardware and software might not be supported. For best results run the Windows 7 upgrade checker and check with a manufacturer's website for your hardware to see if 64 bit drivers exist.

QUICK TIP

Always backup your files

Remember that all sorts of things can potentially go wrong when you're installing a new version of Windows from a hardware failure to a simple power cut. All of these can lose your valuable documents , photos and music.

Always back up your data before installing Windows 7.

For information on how to do this refer to chapter **Guaranteeing.**

To find out how to back up your files in Windows XP or Vista follow the links on page 7 of this guide.

PLUG IN AND TURN ON YOUR DEVICES

You will have a much happier installation experience if all your hardware is plugged in and switched on when you are installing Windows. This greatly increases the chance that Windows will install the drivers for all your hardware and that it will all work when the installation is complete.

This includes printers, scanners, mp3 players etc.

WINDOWS EASY TRANSFER

Available in every version of Windows since Windows XP, *Windows Easy Transfer* is a way to transfer all your documents, email, internet favourites and more to your new PC.

The wizard in your "old PC" will guide you through making a backup.

You can transfer files toy our new PC through am *Easy Transfer Cable* available from some PC and electronics stores, across a network or via an external hard disk or USB flash drive.

Bear in mind that the size of the backup the *Windows Easy Transfer* wizard makes on your old operating system could be very substantial as all your music, documents, video, pictures and photos will be copied.

If you do not have a storage medium onto which you can make the backup, or cannot connect the two PCs directly via a cable or across a network, you should back up all your data and settings (see the chapter **Guaranteeing** for how to do this) onto removable media such as CD, DVD or BluRay Disc.

COMMON WINDOWS FEATURES BY VERSION

	ST	HP	PR	UL
Windows Basic UI				
Windows Aero Glass UI				
Aero Peek				
Aero Snap				
Aero Shake				
Aero Background				
Windows Flip				
Windows Flip 3D				
Live Taskbar Previews				
Explorer File Preview				
Jumplists				
Windows Search				
Action Centre				

	ST	HP	PR	UL
Basic Games				
Premium Games				
Calculator				
Paint				
Snipping Tool				
Sticky Notes				
Windows Journal				
Wordpad				
Windows Photo Viewer				
Windows Media Player				
Windows Media Centre				
DVD Player				
Windows DVD Maker				

	ST	HP	PR	UL
Windows Update				
Windows Firewall				
Windows Defender				
Windows Backup				
Create System Image				
Advanced Backup				
Encrypted File System				
Bitlocker Drive Encryption				
Bitlocker To Go				
Automatic Disk Defragmenter				
Windows ReadyBoost				
Previous Versions				

	ST	HP	PR	UL
Parental Controls				
Multi-Touch / Tablet PC				
Sync Centre				
Offline Files				
Windows Mobility Centre				
Windows Sideshow				
HomeGroup sharing	Join			
Location Aware printing				

	ST	HP	PR	UL
Remote Desktop				
Remote Desktop Host				
Join a domain				
Connect to a projector				

QUICK TIP

Missing drivers?

If the drivers for any hardware have not been installed in Windows it's easier that in previous versions of Windows to install them.

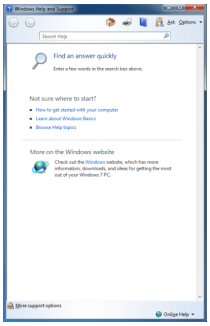
Find out how to do this in the chapter **Configuring.**

CHOOSING A WEB BROWSER (EU ONLY)

If you live in the European Union the *Internet Explorer* web browser is not installed by default in Windows 7. The browser ballot screen will let you choose and install a browser.

More information on this as and when the EU get their fact together!

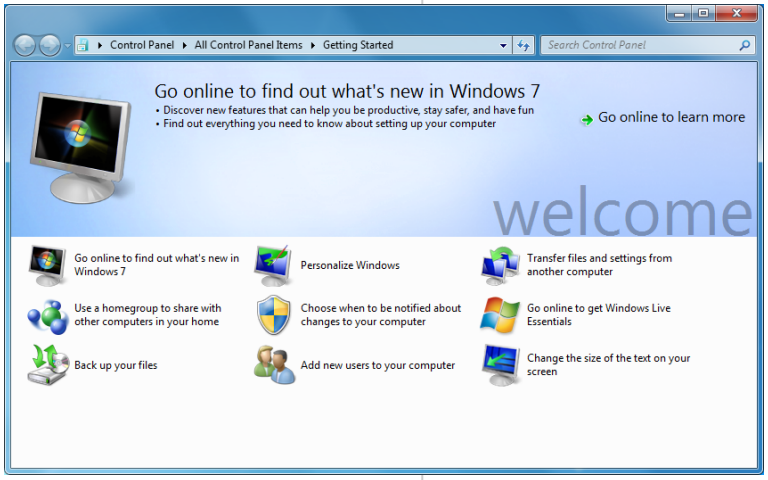
HELP



Help is always available in Windows 7 by selecting *Help and Support* from the Start Menu.

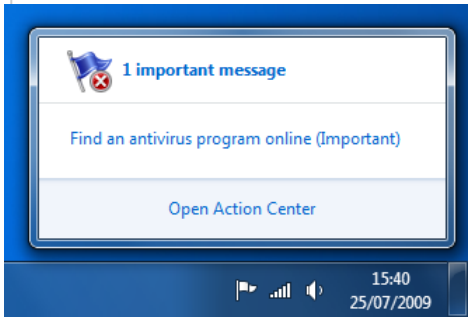
GETTING STARTED

You can open *Getting Started* from the Start Menu. Here you can personalise Windows, transfer files from your old computer or add users to your PC.



INSTALL ANTI-VIRUS

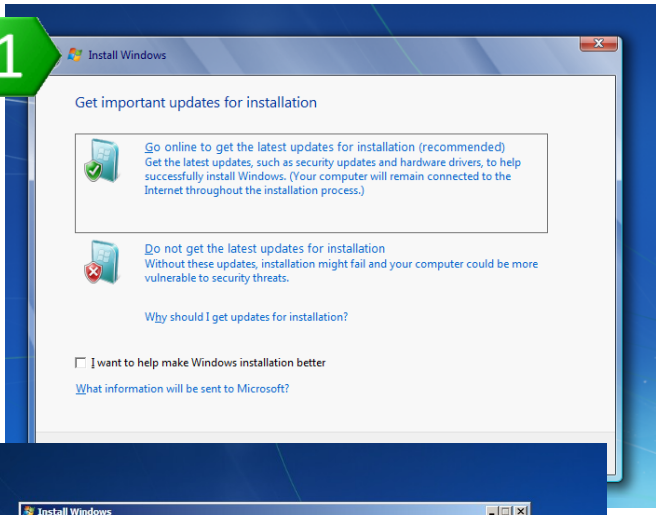
The new *Action Centre* in the system tray will highlight it's warning flag with a red cross to alert you that you will need to install anti-virus software.



STEP BY STEP—INSTALLING WINDOWS 7

1 Your experience installing Windows 7 will change slightly depending on whether you are upgrading or performing a clean install. Your install experience therefore may not include all the steps shown this guide.

If you are upgrading from *within* your existing copy of Windows you will be asked if you want to "go online to get the latest updates". Doing this can make for a smoother installation experience and ensure more of your hardware works from the moment Windows is installed.

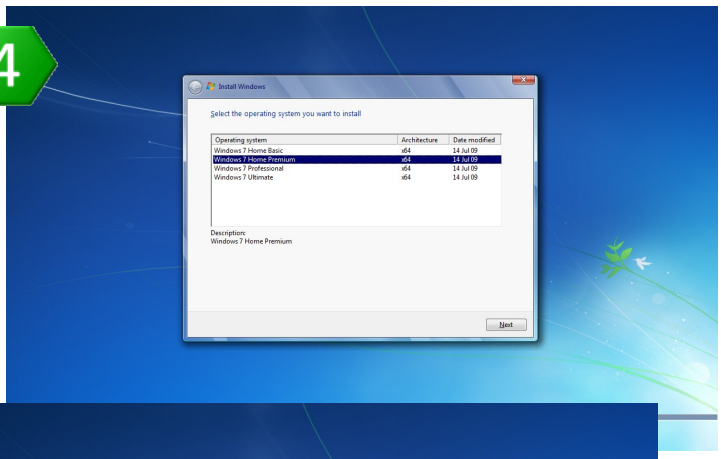


2 If you are performing a clean install you will be asked what country you live in and what language you want Windows 7 installed in.

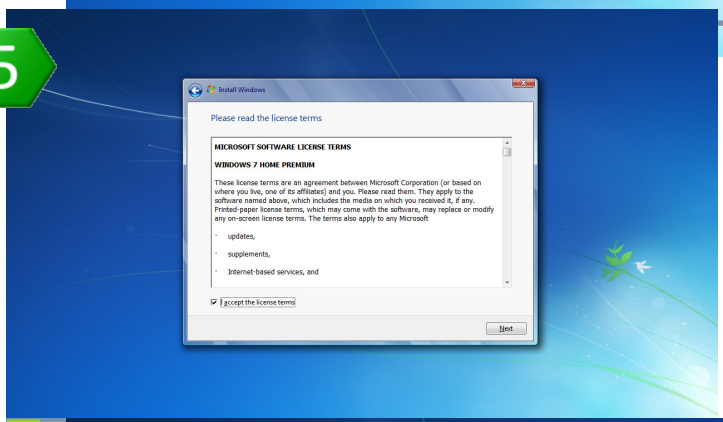
Choose these and Press **Next**.

3 When prompted at the next screen, press the **Install Now** button to begin your installation.

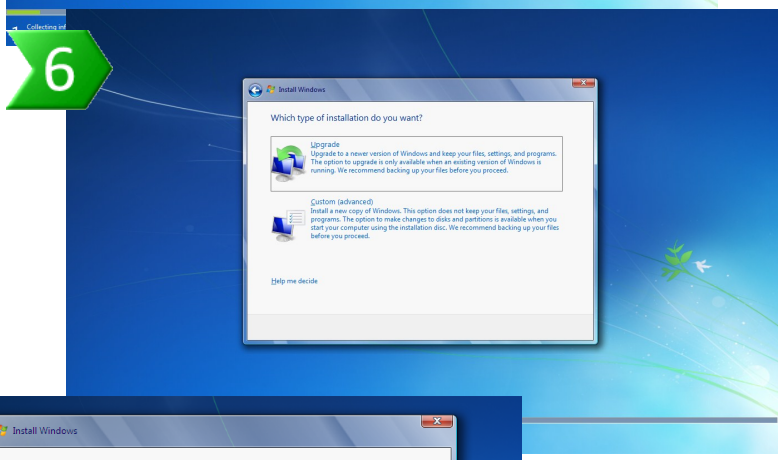
4 At the next screen, depending on whether you are performing an upgrade or a clean install, you will be asked which version of Windows 7 you are installing. Choose the version for which you have a valid licence and click **Next**.



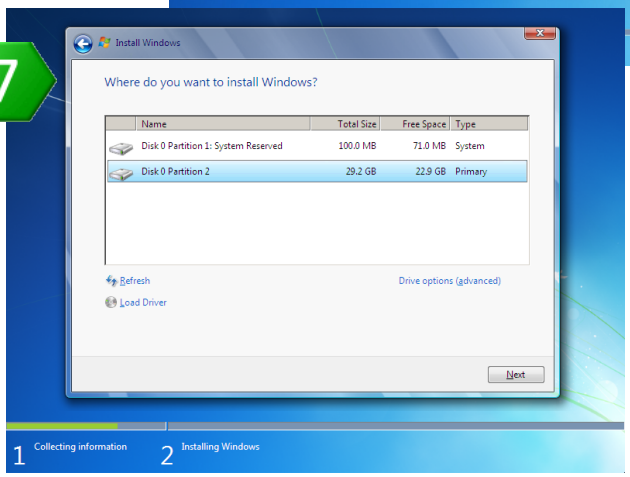
5 The next step is to accept the licence agreement. You will need to pick a tick in the *I agree* box and click **Next** to proceed.



6 At this point you must choose whether you wish to *upgrade* your existing copy of Windows, if you have one installed, or perform a *clean install*. Performing a clean install will give you a better, faster copy of Windows but you will need to make sure you have backed up all of your files first as it will wipe them.



7 The next few steps only apply to doing a *clean install*. First ask on which disk or want to install Windows glossary for more on what these are) *[step next page]*

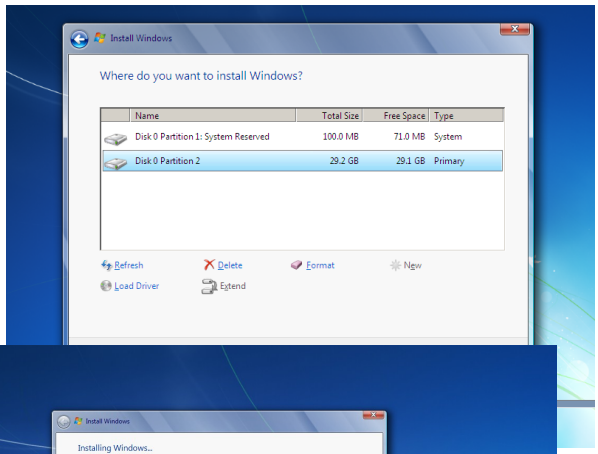


Windows will partition you (see the information *continues on*

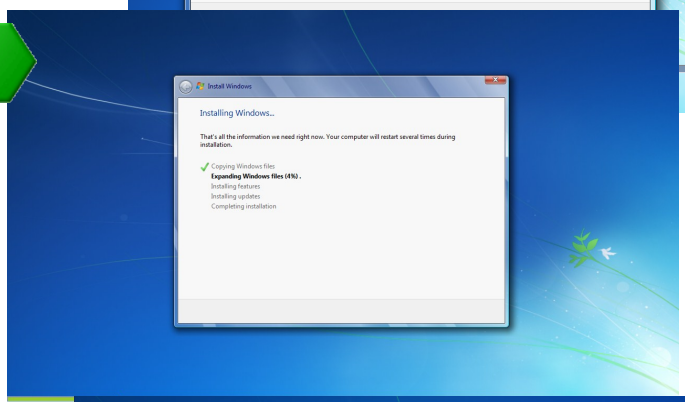
You may want to wipe the drive or partition before installing Windows. This deletes all files and data on the disk so you can start with a clean drive. You can click on **Drive options (advanced)** to get to this feature and then choose **Format**.

Be very careful to only format the drive on which you want to install Windows 7.

Click **Next** to start the installation.

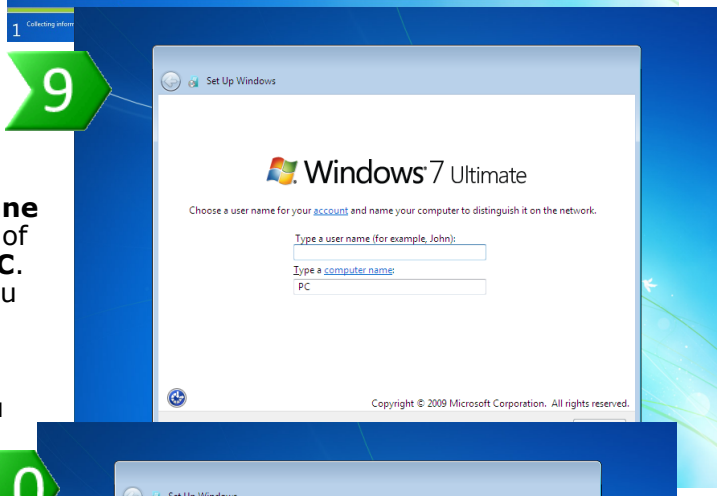


8 Windows will now begin the installation process. Your computer will restart once or twice during this process but you will not need to do anything else until it completes.



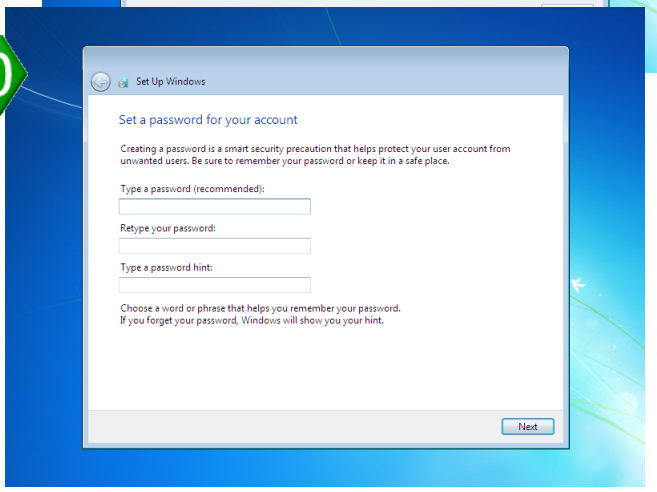
This can take 20 to 30 minutes for a clean install or up to several hours for an upgrade.

9 When installation is complete you will be asked for your name, this will be the name for the main *administrator* [master] account on the PC and your name for the PC itself.



You might like **Bob** or **Mary and Jane** as the account name and the name of your PC could be **Study** or **Phil's PC**. You can set these to be anything you want.

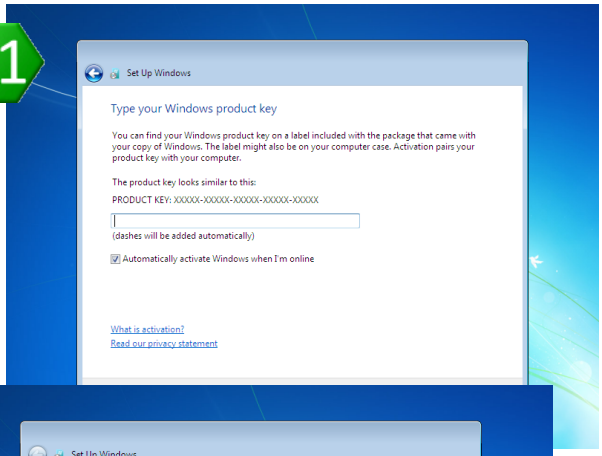
10 You will then be asked if you want to set up a password for this account. If you do not want to do this just leave the boxes blank and press **Next**.



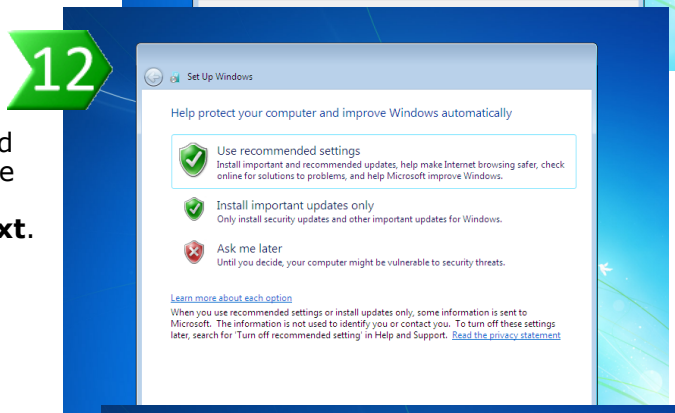
If you plan on using the *parental controls* in Windows 7 to help determine what games your children can play and when they can use the PC, you will need to set a password.

11 Windows will now ask you to enter your product key. This is the 25 character code that came with your copy of Windows. You will find it on a sticker on the case for your PC or inside the box your Windows 7 install DVD came in.

You can proceed *without* entering a product key if, for instance, you are just evaluating the features in a version of Windows 7 before choosing which one is best for you to buy.

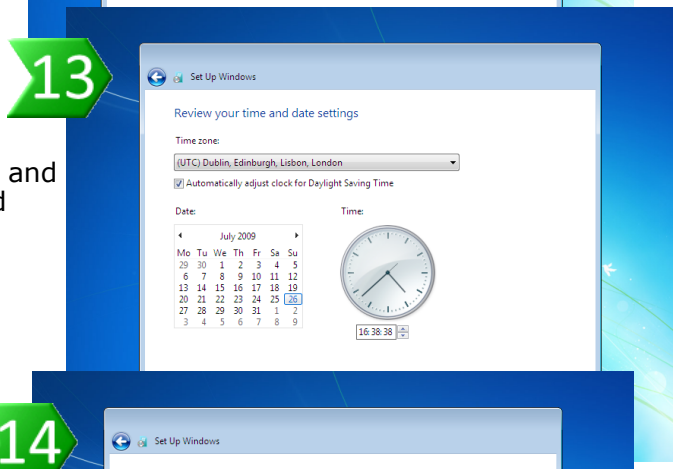


12 *Windows update* is the system that helps keep your copy of Windows secure and up-to-date with the latest patches. You will be asked if / how you want Windows to update itself. I recommend you select *use recommended settings* and click **Next**.

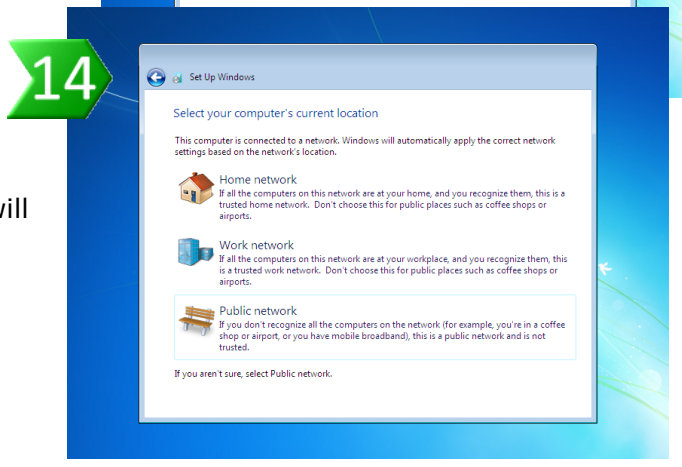


13 We're almost done. The only steps left are to set a few settings particular to your location and preferences.

This screen will ask for your time-zone and for you to confirm the current time and date.

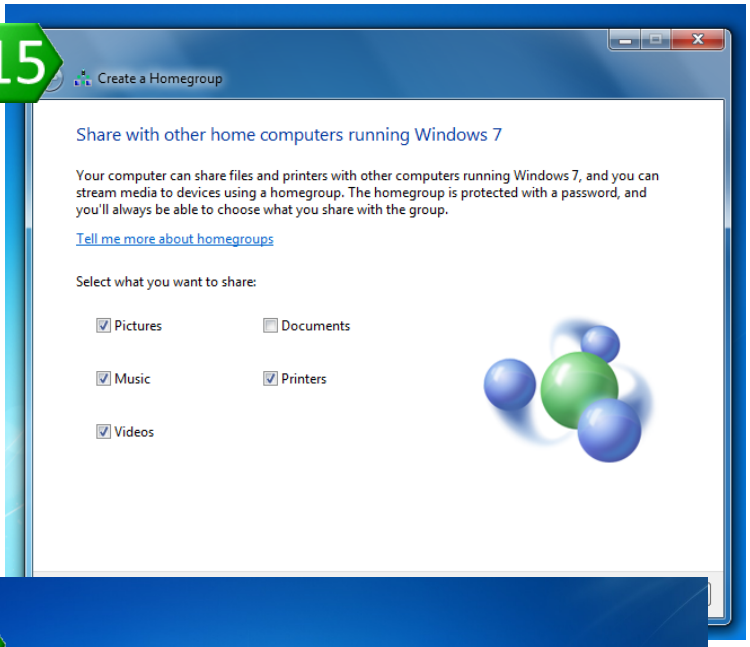


14 If you have a wireless *wi-fi* network set up and Windows has recognised the drivers, you will be asked what type of network this is. Select the option that best describes your wi-fi network and click **Next**. Windows will now set your internet security accordingly.

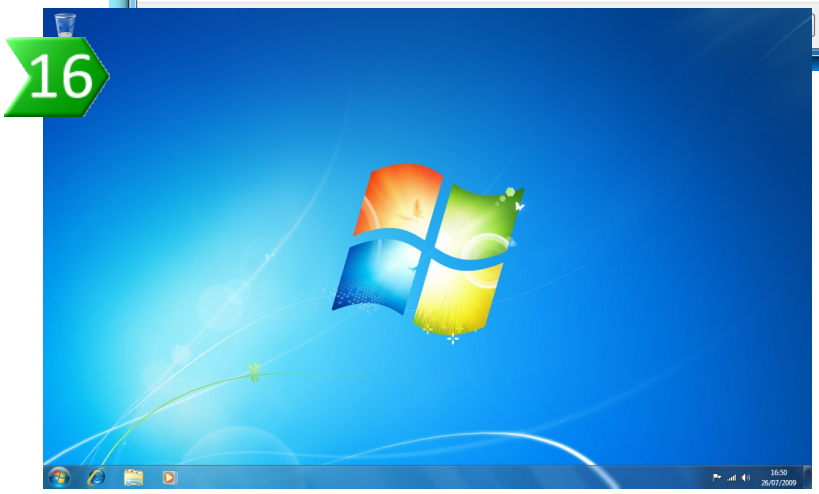


15 Windows may now ask you if you want to set up a *Home Group*. This will enable you to share files, photos, music and video with other PCs running Windows 7 in your home.

You can skip this step by pressing **Cancel** as this feature can be set up later. We will cover this in the chapter **Connecting**.



16 We're finished! You will now see the Windows 7 desktop and can get started using Windows.



Part 3

Exploring

The Windows 7 Power Users Guide

by Mike Halsey

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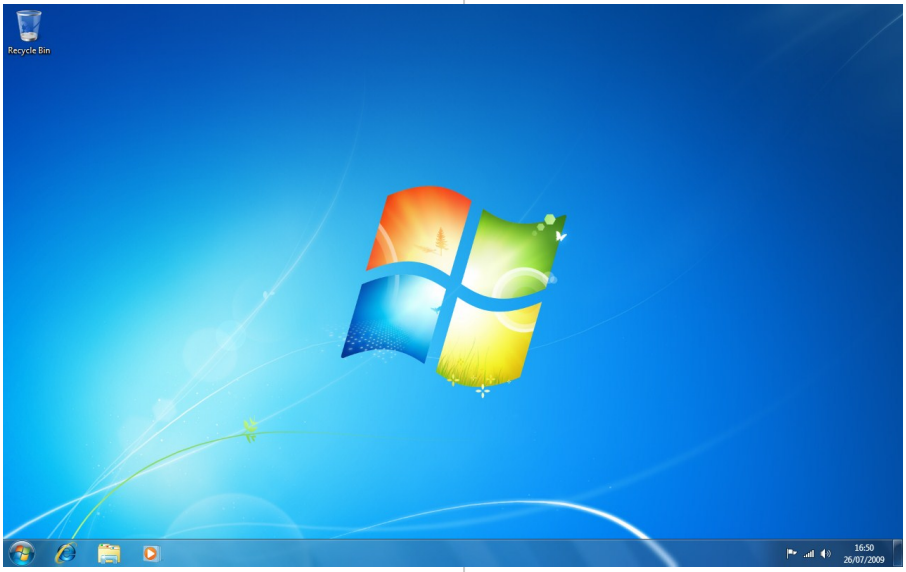
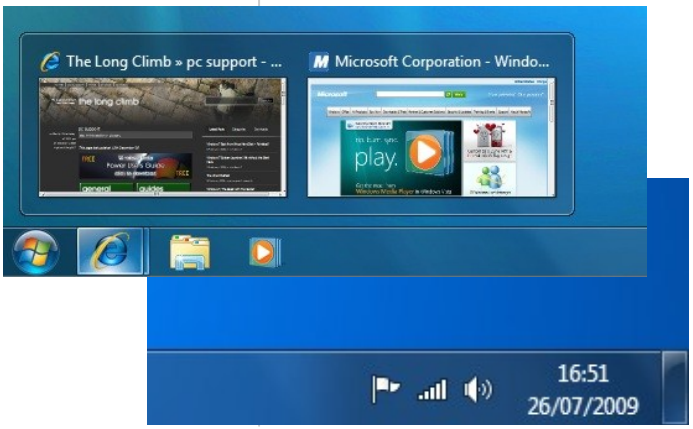
THE WINDOWS 7 DESKTOP

There have been some changes made to the desktop with Windows 7. Some of these changes may be familiar to you, especially if you've been using Windows Vista, others are completely new.



THE TASKBAR

Sometimes called the *superbar* this is completely redesigned in Windows 7. You can read more about the new taskbar and how it works later in this chapter but it is now a place from which you can both launch and manage running and non-running programs and applications. It is essentially a merging of the old taskbar and *quick launch* area.



THE NOTIFICATION AREA

One of the criticisms in previous versions of Windows was how annoying the *notification area* became. This is the area on the right side of the taskbar that filled up with icons and alert balloons, telling you about things happening on your PC.

I will talk at more length about the new notification area later in this chapter.

QUICK TIP

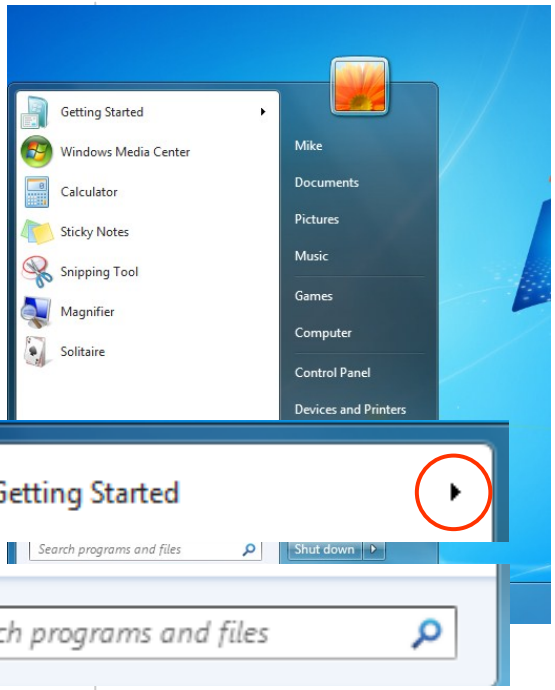
A call to Action

The new flag in the notification area, the far right of the taskbar, is now the only place you need to go to , to receive notifications about Windows and other software (including anti-virus software).

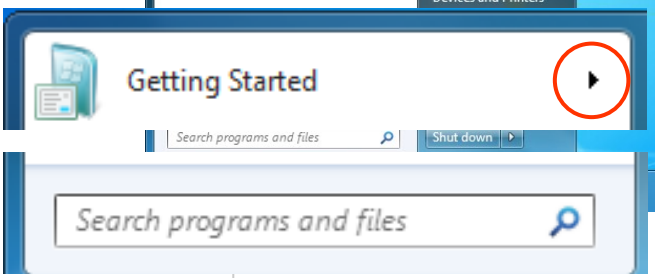
The flag will highlight with a cross when there's a message for you.

THE START MENU

The Start Menu hasn't changed much since Windows Vista but now includes *jumplists* which will pop out when you click the arrow on the right side of some Start Menu items.



There is also a search box you can use to find programs and files.



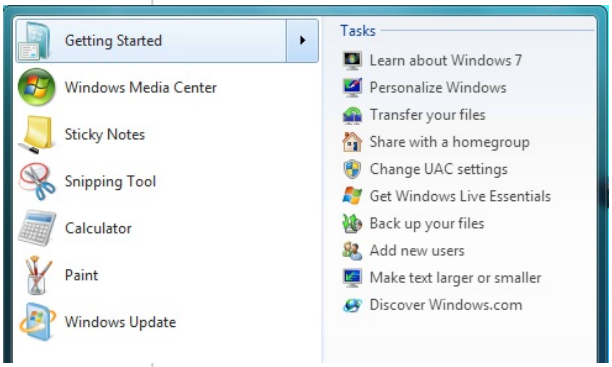
PINNING START MENU ITEMS

You can pin programs to the Start Menu so they always appear there. You can do this by *right clicking* with your mouse and selecting **Pin to taskbar**. You can also pin items to the taskbar this way and *unpin* items.

GETTING STARTED

The first item in the Start Menu is called *Getting Started*. You can click on this to open it in it's own window or open its jumplist.

Here you can perform post-install duties such as personalising your desktop and adding more users.



QUICK TIP

Jumplists in the Start Menu

Some Start Menu items have a small arrow to their right. Clicking this will bring out a list of options or recent files / disk locations.

This can simplify access to common files and features within programs.

Pin items to the Start Menu

If you pin a program to the Start Menu it will always appear in the Start Menu whenever you press the Windows key.

Right click the program with your mouse and select **pin / unpin to Start Menu** to do this.

USING THE TASKBAR

The new taskbar is the main place from which to launch programs and manage running programs.

You can pin programs to the taskbar in the same way as pinning them to the Start Menu (see *Pinning Start Menu Items*) on the previous page.

SHOW DESKTOP

HP PR UL

At the very bottom right of your screen (the far right of the taskbar) is a small button which will show you your desktop.

Rolling your mouse over this button will make all the windows on your desktop go transparent. Clicking it will minimise every window. If you click this button again every window will be restored to its full-size.

LIVE THUMBNAILS

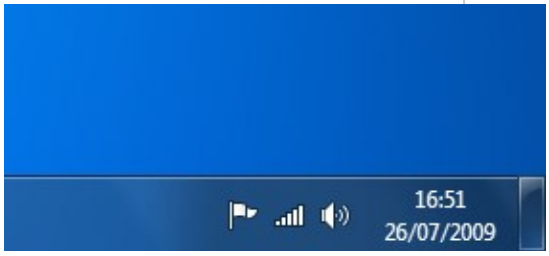
HP PR UL

The live thumbnails have been improved since Windows Vista. Rolling over an icon on the taskbar will show you thumbnails of the program. In the case (above) there are two tabs open in *Internet Explorer* and it will show you both tabs.

Rolling your mouse over a thumbnail will show you the Window full size, making all other windows transparent. This will also work for minimised windows, it will restore them for you.

NOTIFICATION AREA

By default Windows 7 shows three icons in the notification area. The flag is the new *action centre*, more on that in a bit. Next is your network connection, either wired or wireless. The icon for wi-fi connections will show connectivity and signal strength. The final icon is for sound. Clicking on it will bring up the volume control.



QUICK TIP

Using thumbnails to organise windows

If you have a lot of windows open on your desktop you can use the live thumbnails to organise them. Hovering over a thumbnail on the taskbar will make all other windows transparent and show you the selected window, even if that window is minimised.

QUICK TIP

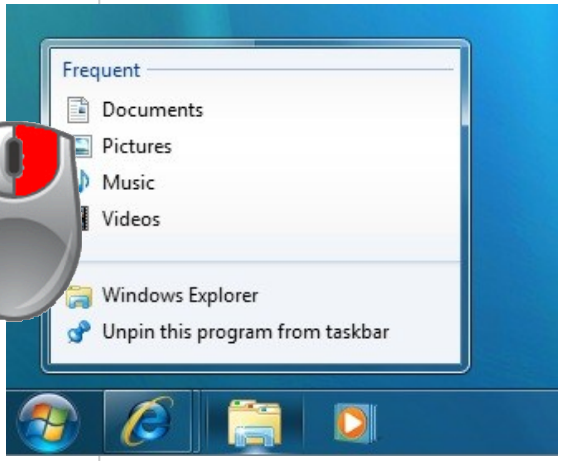
Running two instances of a program from the taskbar

If a program is open clicking it's taskbar icon will only minimise and maximise it. There are two ways to open a new instance of the program (say, two explorer windows).

1) right click the icon and click on the name of the program to open a second instance of it.

2) click the scroll wheel between the buttons on your mouse (if you have one) which will also open a second instance of the program

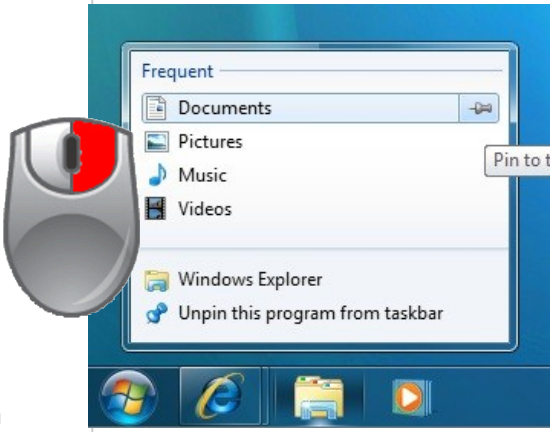
TASKBAR JUMPLISTS



The new Taskbar also has jumplists for many programs. You can access these either by right clicking on the icon with your mouse or by left clicking with your mouse and pushing the mouse upwards, away from the icon.

These jumplists can show you recent files and disk locations. They can also contain features within a program you may want to access easily.

PINNING ITEMS TO JUMPLISTS

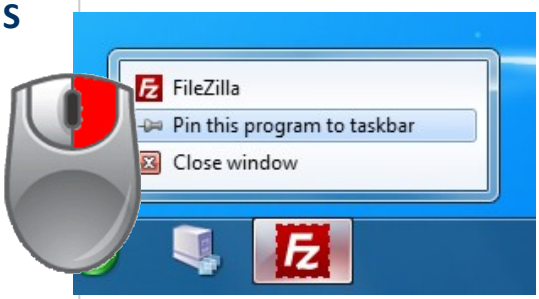


You may want to pin items to jumplists on the taskbar.

You can do this by right clicking on the jumplist item and selecting *pin / unpin to this list*.

This can be used to gain quick access to documents or disk locations you use regularly, such as a home finance spreadsheet.

PINNING PROGRAMS TO THE TASKBAR



If you want to pin a program to the new taskbar you can either *right click* on it in the Start Menu and select *Pin to Taskbar* or right click on it's icon when it is running and do the same.

THE ACTION CENTRE

Clicking on the flag in the *notification area* will bring up the *action centre*. This is where all the alert messages, informing you about things happening with your computer are to be found.

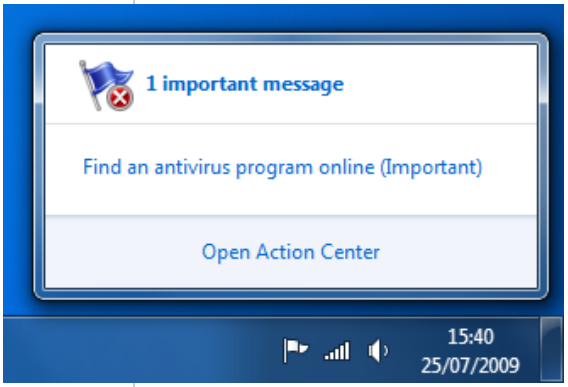
If there is a message this flag with change from plain white to a flag with a red cross on it.

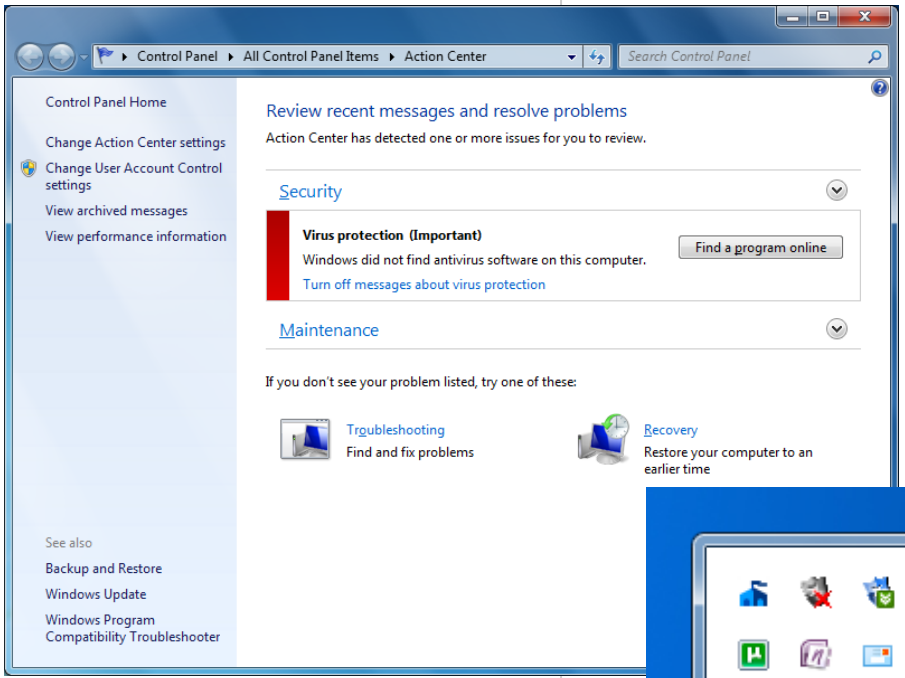
The first alert you will see after installing Windows 7 is one advising you to install anti-virus software. You can click on the message to find out more about it or click on *open action centre* to see the action centre full size.
It's in the full action centre that you have control over what alerts you choose to see. You can follow step-though guides to fix common problems and also view archived messages.

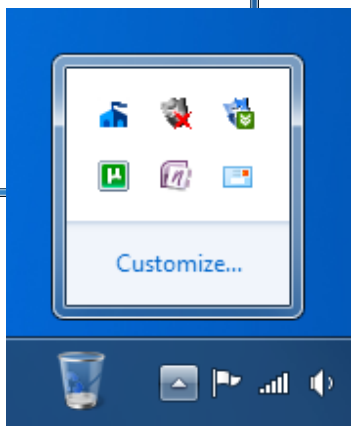
The action centre is your first port of call to diagnose and fix problems with Windows 7.

There are options here to **Troubleshoot** problems with Windows or use **Recovery** tools if Windows needs repairing.

Alerts will be colour-coded red, yellow or green depending how serious Windows believes they are.







QUICK TIP

Where have all the notification area icons gone

Icons that the new notification area hides by default can be displayed by clicking a small *up* arrow that appears next to the action centre flag.

Clicking the *customise* link in the window that appears will allow you to set programs, such as anti-virus software, to *always* display in the notification area.

QUICK TIP

Customise your favourite links

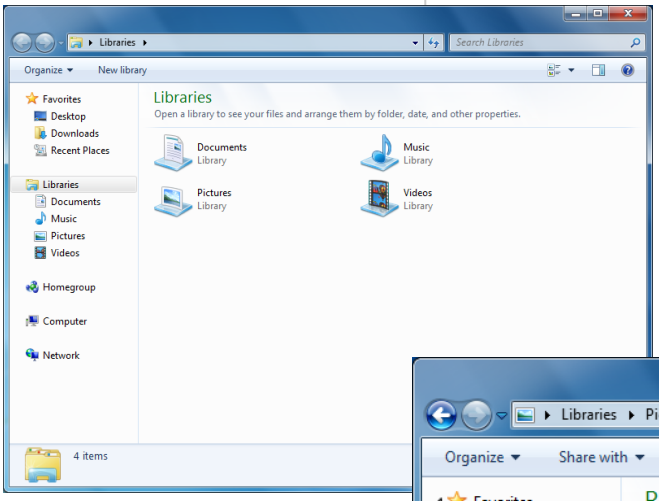
Customising the favourite links in the Navigation Pane on the left side of explorer windows can be a tremendous time saver.

Here you can drag and drop your favourite and most commonly accessed folders and drives, either on your own PC or on a local network.

It's well worth spending some time setting this up.

WINDOWS EXPLORER

As with previous versions of Windows, *Windows Explorer* is the main way you access and organise your files and folders. It's not changed much since Windows Vista, but there are important changes none the less.



By default now, starting Windows Explorer will show you the new *Libraries*. I'll write about these more later in this chapter. The toolbar along the top of the screen now has handy text labels that will change depending on the content you're looking at. These commands will allow you to do things from creating folders to burning files to CD or DVD.

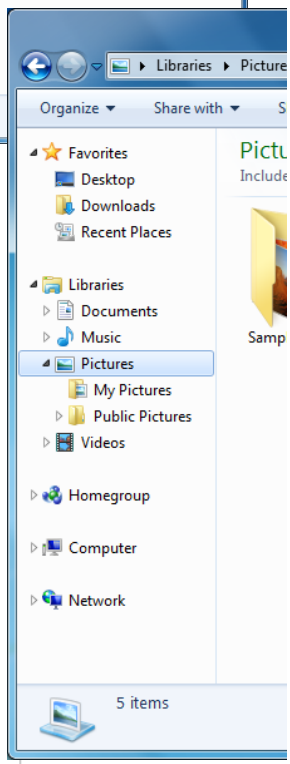
The Breadcrumb bar also still sits at the top of Windows Explorer and I'll talk about this more in a moment.

The biggest change is the Navigation pane along the left side of the window.

NAVIGATION PANE

The new navigation pane on the left side of explorer windows allows quick access to *Libraries*, drives and your network.

Each section is collapsible and folds out into a full tree. In addition you can view your *Homegroup* (more on this in the chapter **Connecting**) There is also a new *Favourites* section into which you can drag and drop folders, drives and other locations for quick and easy access to them.

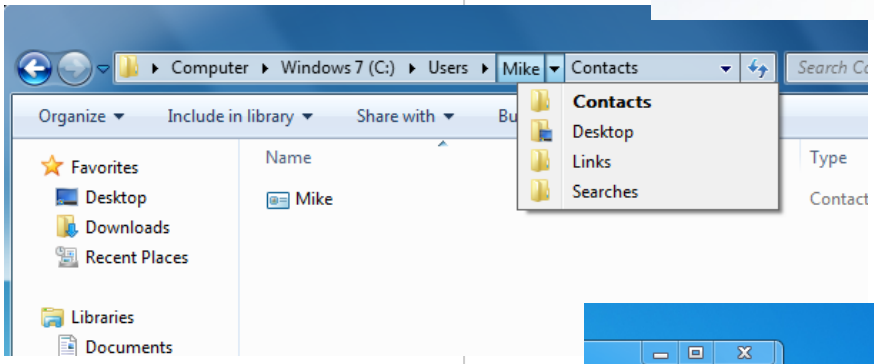


It's well worth spending some time putting your most commonly used places into the *Favourites* section as it's an enormous time saver.

THE BREADCRUMB BAR

As with Windows Vista the breadcrumb bar is your main way of navigating Windows Explorer through the drives and folders on your PC.

Each section (folder) is separated by an arrow. Clicking this arrow will display a drop-down menu that will allow you to instantly move to any other branch in that point of the tree.

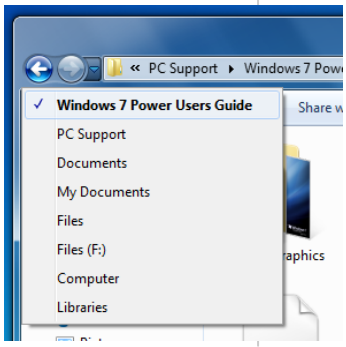


For instance, in the image (above) you can see we're on the *Windows 7 (C:)* drive, in the *Users* folder and then in the *Mike* and *Contacts* folders, both sub-folders of that.

PREVIOUS LOCATIONS

In the top left of explorer windows are left and right arrows to take you to back and forward between the folders and disks you've looked at.

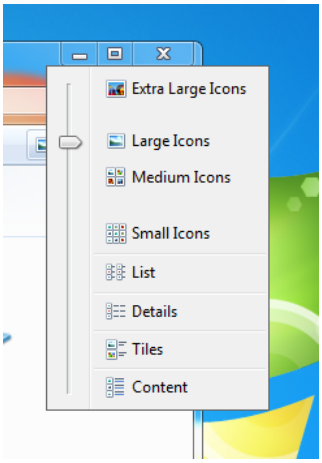
You can also jump directly to anywhere you've recently been by clicking the down arrow between these buttons and the breadcrumb bar.



CHOOSING HOW TO VIEW FILES

The default way of viewing files and folders is by no means the only way of doing so.

In the top right of explorer windows are two icons to



change the view you can see. Clicking the first icon will bring up a slider control you can use to change the thumbnail and icon size for files and folders in that explorer view. You can also select other views here including *List*, *Details* and my personal favourites, the very interesting and helpful *Tiles* and *Content.*

QUICK TIP

Change the default explorer view

By default, Windows Explorer will just show you an alphabetical list of a folder's contents.

It's worth customising this view to another that is more helpful and better suits your personal needs.

Follow my step-by-step guide on how to do this later in this chapter.

QUICK TIP

Sorting and Grouping by more criteria

There are more than just the standard criteria for sorting and grouping files. Clicking on **More...** Will bring up a long list of many different criteria you can sort files and folders by.

These include Exif data from a digital camera and artist and composer details for music files.

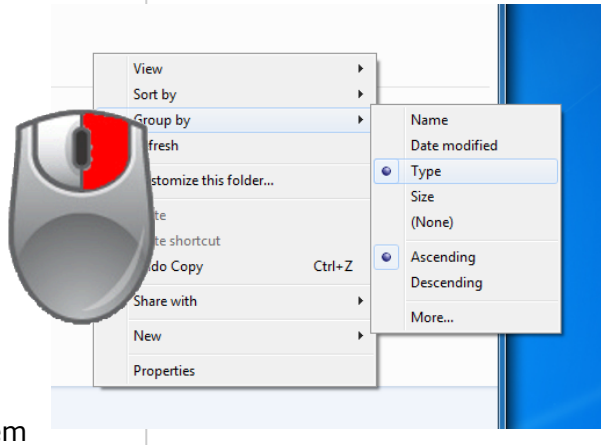
Different views in different folders

The view you set for an individual folder will not affect any others, so you can set different sets of folders to display files differently.

SORTING AND GROUPING FILES

By default the standard view of files and folders in Windows Explorer isn't very helpful, being just a simple alphabetical list. You can change this as per previous versions of Windows easily though.

Right clicking anywhere in a blank space in the explorer window will bring up a context menu that will allow you to sort and group files by different criteria such as when they were last modified, how big they are or, my personal favourite, what type of file they are.



Sorting files by a criteria will keep them as one large list. Grouping them will separate them into groups determined by the criteria you have set.

PREVIEWING FILES

Just next to the help button in the top right of explorer windows is a button to toggle the preview pane. This will open up at the side of the window and will give you a large preview of many file types when you click on them.

COLLAPSING GROUPS

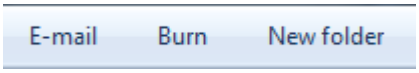
When you are viewing files and folders organised by groups you can collapse some groups to make it easier to see and get access to the files you want.

At the left side of each group is a small arrow you can click to collapse and restore the group.

WORKING WITH FOLDERS

While the *Favourites* in the *Navigation Pane* and the *Breadcrumb bar* make it easy to navigate through your files and folders, if you have lots of files sitting together in your documents folder, creating additional folders you can move some files into can help make things easier to find and organise.

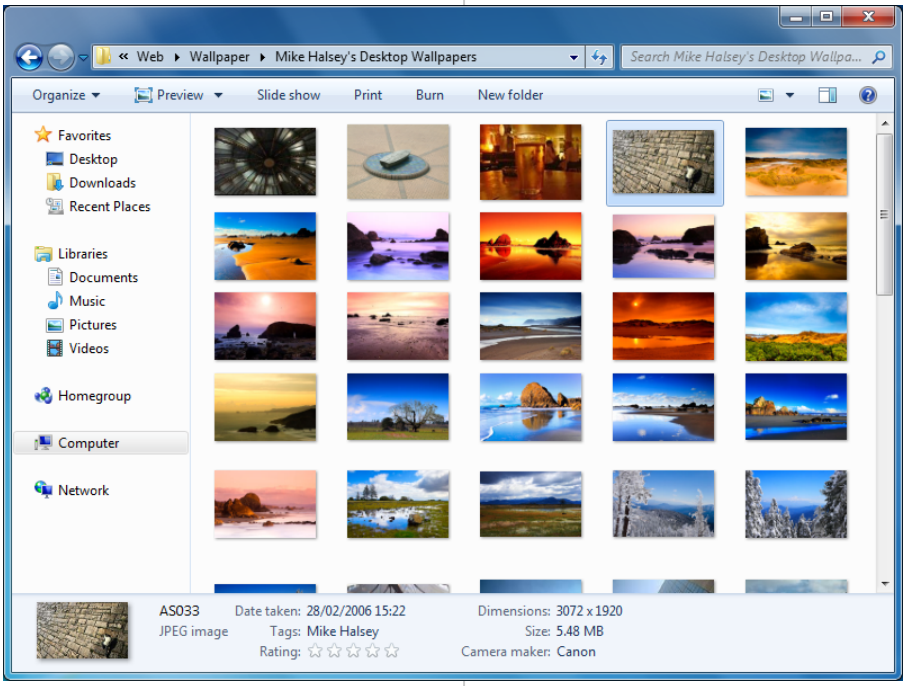
The *New Folder* button on the explorer toolbar will allow you to do this.



THE DETAILS PANE

Along the bottom of explorer windows sits the details pane. Clicking on a file will bring up information about that file here. This information could include the date the file was created, it's size, tags or ratings (for information on tags and ratings see the chapter **Searching**).

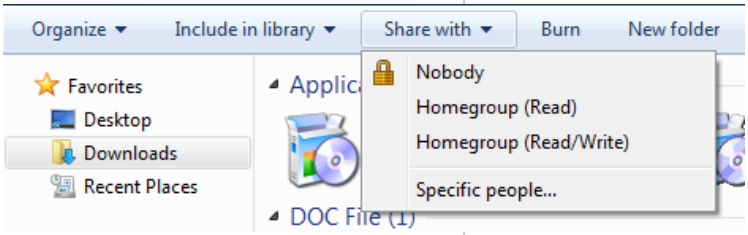
You can change the size of the details pane by *right clicking* in it when no file is selected and choosing how big you want from the *size* context menu that appears. The bigger it is the more information it will display.



This can be especially useful with digital photographs where the details pane can show what camera the photo(s) were taken with, the resolution of the photograph and additional information.

THE MENU BAR

Along the top of every explorer window is the menu bar. The menu items will change depending on the content the window is displaying but can include options from sharing files to burning them to disc.



QUICK TIP

Use the details pane

The details pane along the bottom of explorer windows is interactive, you can use it to add and update information about a file, such as its Tags or Rating (see the chapter **Searching** for ore information on these).

Want more detail on files?

If you want more details about the files you click on displayed in the details pane you can right click in the details pane when *no* file is selected and change its size. The bigger it is, the more information it will display.

QUICK TIP

Hide the names of all your pictures

You might want to hide the names of all your pictures, especially if all the images on your PC tend to be digital photographs.

To do this right click in any folder displaying images and select *View* and *Hide file names*.

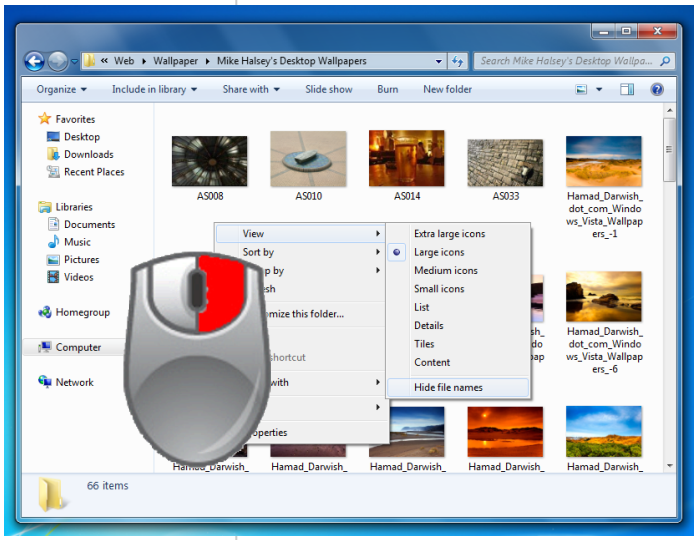
Then click on the *Organise* button in the top left of the explorer window and *Folder and Search options* from the menu that appears.

In the window that pops up click on the *View* tab and press the *Apply to folders* button.

HIDING PICTURE AND PHOTO NAMES

With most photos from digital cameras named DSC123 we don't really need to know what the names of the photos are. Fortunately we can turn this feature off when looking at a folder of pictures.

Right click anywhere in a blank space and in the context menu that appears select *View* and then *Hide file names*. You will now only see thumbnails of the pictures in that folder.



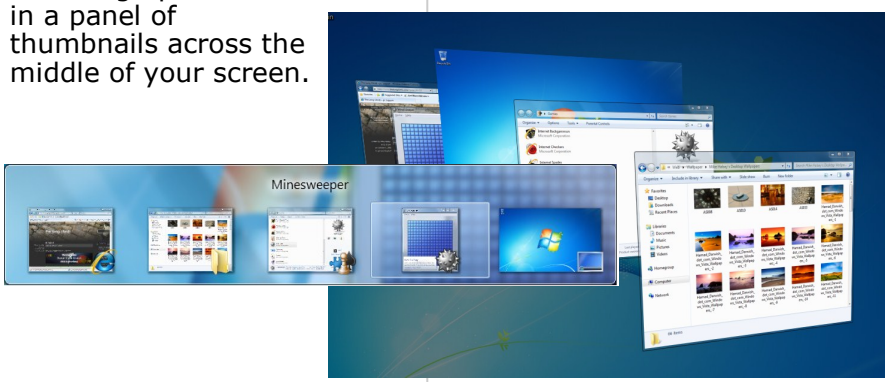
FLIP 3D

A more attractive way to switch between windows is to hold down the *Windows key* while also pressing the *Tab* key will bring up *Flip 3D*. This will show all your windows in an attractive three-dimensional way.

You can cycle through these by pressing the *Windows key* + *Tab* or by using the scroll wheel on your mouse.

SWITCHING BETWEEN WINDOWS

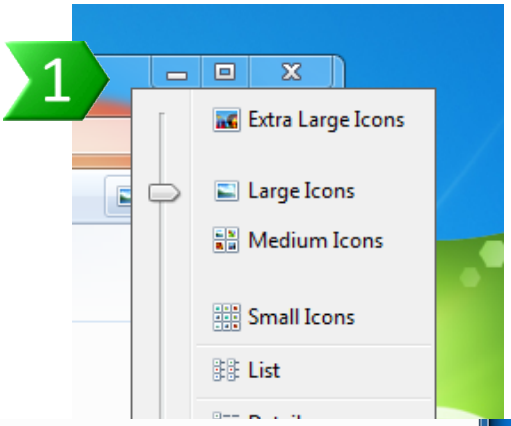
There are two ways to switch between open windows. Hold down the *Alt* key on your keyboard while pressing the *Tab* key will bring up each window in a panel of thumbnails across the middle of your screen.



CHANGING THE DEFAULT VIEW IN WINDOWS EXPLORER

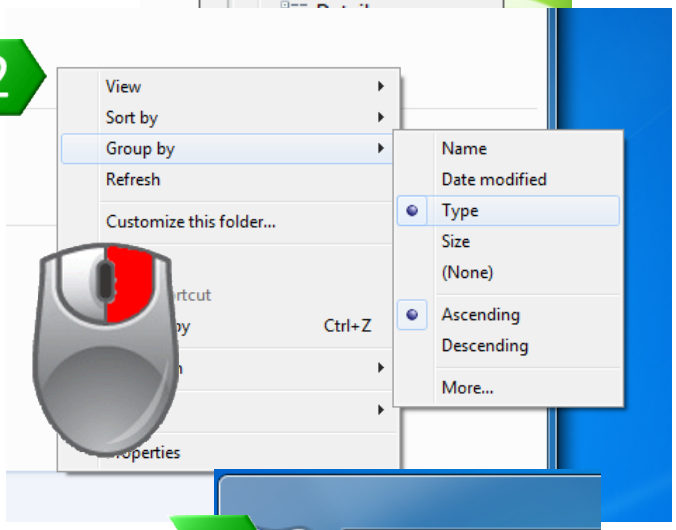
1 Click on the *Change your view* button near the top right of any explorer window.

Here you can select the view you like. My preference is *Tiles*.

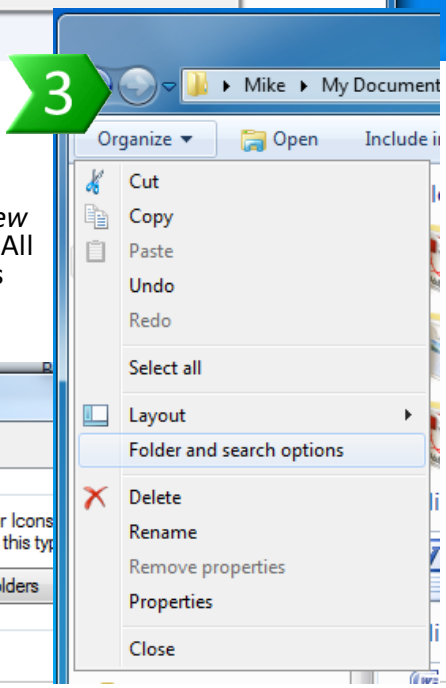


2 *Right click* anywhere in a black space in the explorer window and select *Sort by* or *Group by* and then select a criteria.

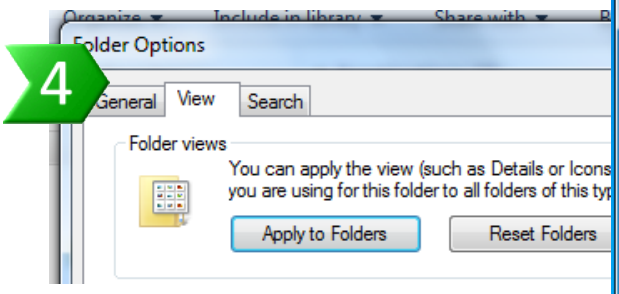
My preference is so group by *Type*. This will separate files and folders into their file type.



3 Click the *Organise* button in the top left of the explorer window and select *Folder and Search options*.



4 In the window that appears, click on the *View* tab and press the button *Apple to Folders*. All your documents folders will not take on this appearance.



QUICK TIP

Keep your documents safe

By default all your documents are stored in the same place as Windows stores all its files. This means that if disaster strikes and Windows 7 needs a clean install, all those documents will be wiped.

You can use a second hard disk or create a new partition on which to keep your files safely. Follow the step-by-step guide later in this chapter for details on how to do this and keep your documents, photographs and videos safe.

REMEMBERING WINDOWS SIZES

By default all *Explorer* windows will always open at the same size, but this size may not suit you. The good news is that this is easily changed.

You can resize the window by dragging and dropping it from a corner. When you have it the size you want hold down the *ctrl* key while closing it. The next time you open that windows it will be the size you want.

MOVING YOUR DOCUMENTS AWAY FROM WINDOWS

Your hard drive is a big block of storage space, a bit like a garage. In this space is installed your copy of Windows 7 and also kept here are all your documents, photographs, music and video.

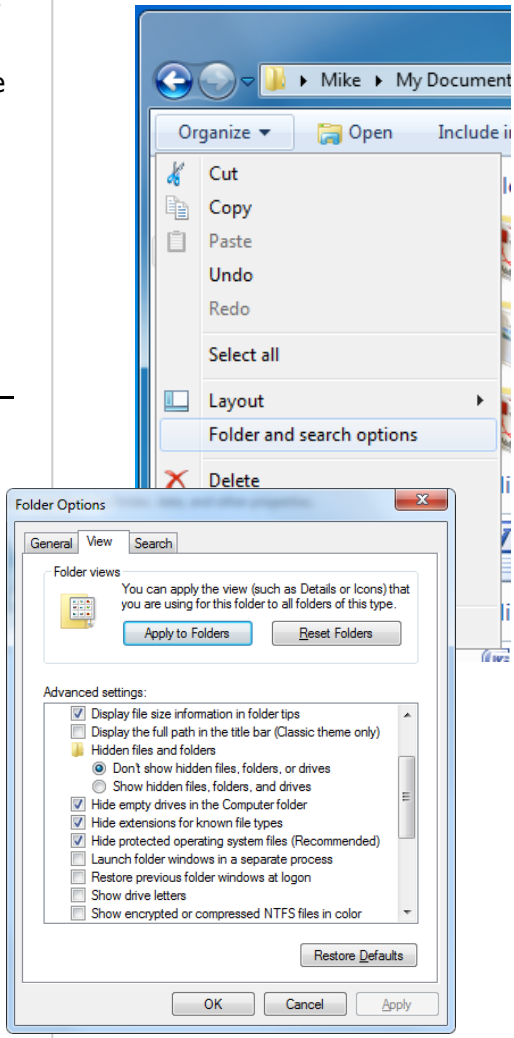
Windows 7 is extremely stable but disasters *do* unfortunately happen. Should your copy of Windows 7 become corrupt and need a fresh install, those files could be wiped.

You can back up your files and restore them from that but how recent will your backup be? Will you still lose files?

A simpler way is to move your files to another hard disk or partition. When you partition your hard drive, you divide it into several sections using software, each of which is treated as its own drive. So if one of those partitions needs to be wiped, the others won't be.

DRIVE LETTERS AND FILE EXTENSIONS IN WINDOWS 7

Why do we need to see drive letters (C:, D: etc) and file extensions (.doc, .pdf) in Windows? Fortunately they're easily turned off.



Click the *Organise* button in the top left of an explorer window and select *Format and search options*. Under the *view* tab you can untick *Show drive letters* and toggle *Hide extensions for known file types*, which will be on by default.

MOVING YOUR FILES FOR DATA SECURITY

Moving your documents away from the drive Windows 7 is installed on can remove any chance that your files will be lost if there is a serious problem with the operating system.

If you have two separate hard disks on your PC, or your hard disk is already partitioned into separate drives you can ignore steps 1 to 9 and go straight to step 10.

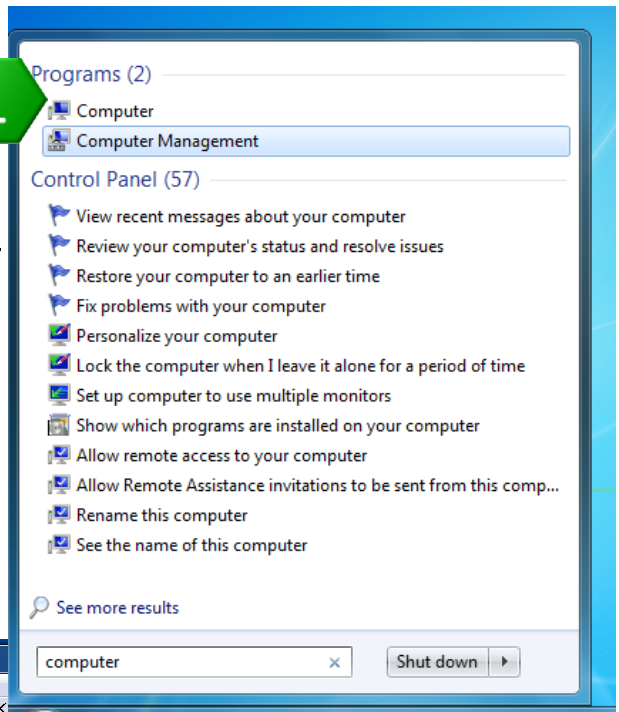
Always back up your files before doing this. If you can move them to an external disk while you partition your disk you will be able to shrink your Windows 7 disk more.

PART 1—CREATING A NEW PARTITION

Firstly, make sure all your files are backed up. Changing anything with the partition structure on your computer can occasionally result in disaster!

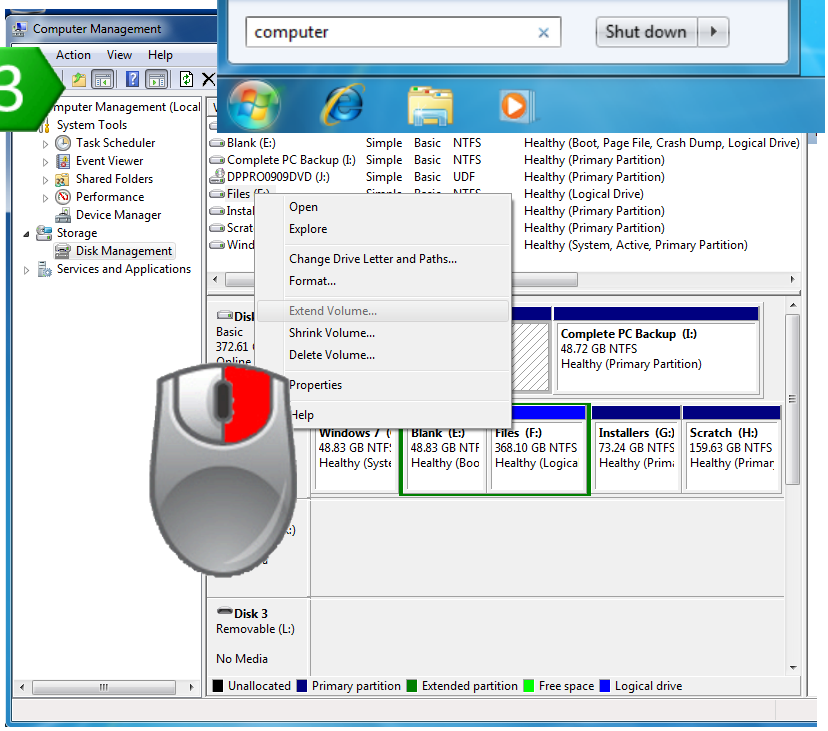
1 Open the *Start Menu* and type **computer** into the search box there. When *Computer Management* appears, click to run it.

If you already have third-party partitioning tools you can also use those.



2 In the window that appears click on *Disk Management* in the left column.

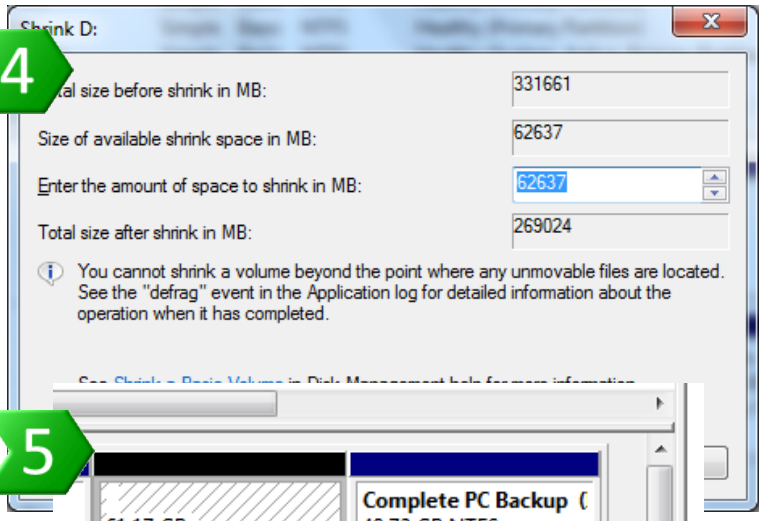
3 Next *right click* on your Windows 7 drive and in the context menu that appears select *Shrink Volume*.



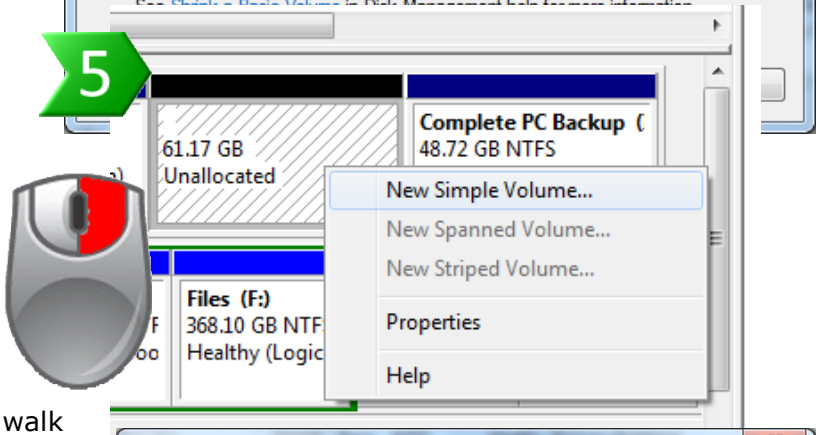
4 Windows will then tell you how much space it can shrink the drive to. Select the amount you want.

You should leave your Windows 7 drive as a minimum of 50Gb ideally, but make sure you will have plenty of room left for your files.

The shrinking process might take some time so be patient. Press **Shrink** when you are ready to start.

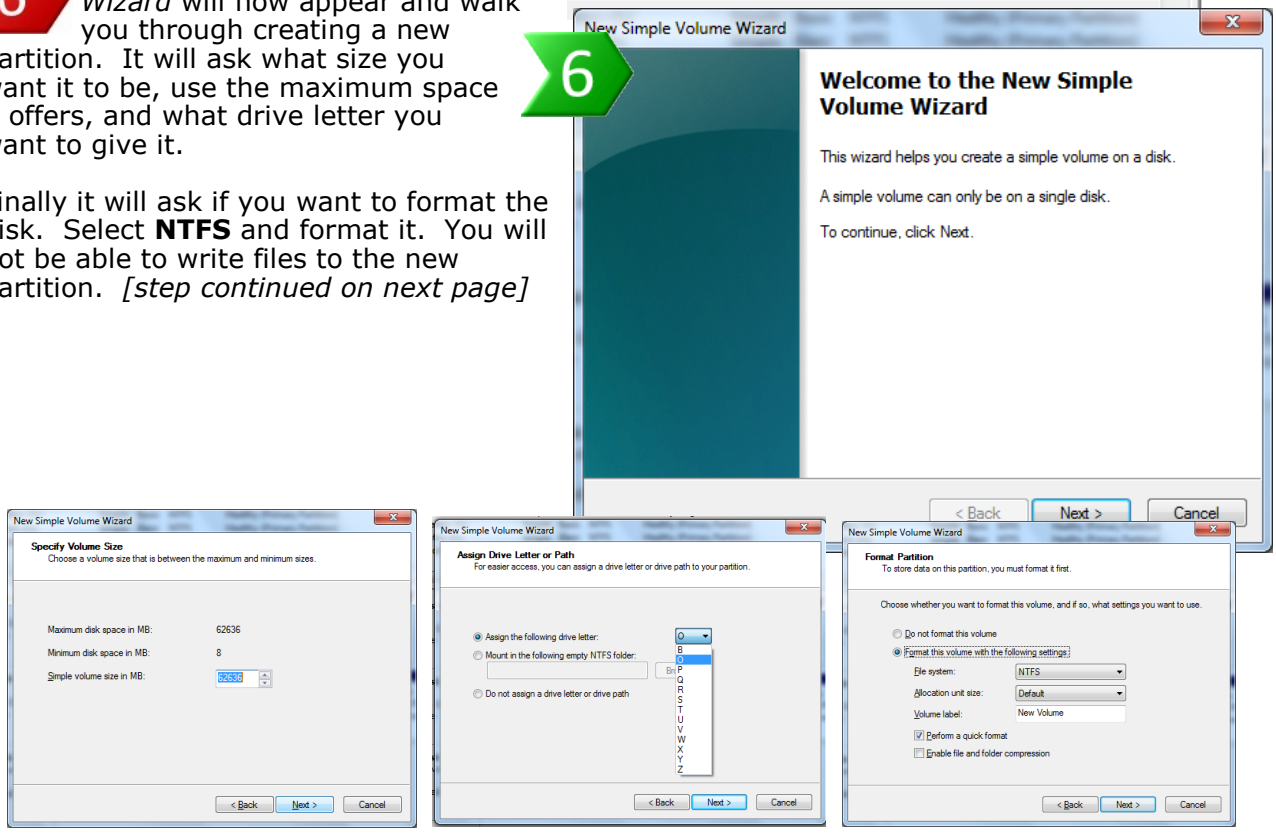


5 You will now see some disk space that is marked as **unallocated**. *Right click* in this space and select *New Simple Volume*.

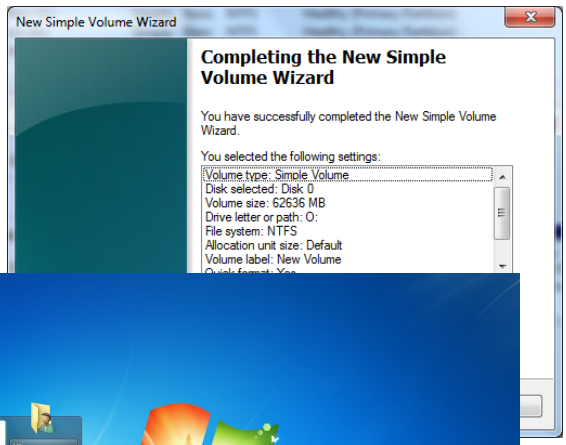


6 The *New Simple Volume Wizard* will now appear and walk you through creating a new partition. It will ask what size you want it to be, use the maximum space it offers, and what drive letter you want to give it.

Finally it will ask if you want to format the disk. Select **NTFS** and format it. You will not be able to write files to the new partition. *[step continued on next page]*

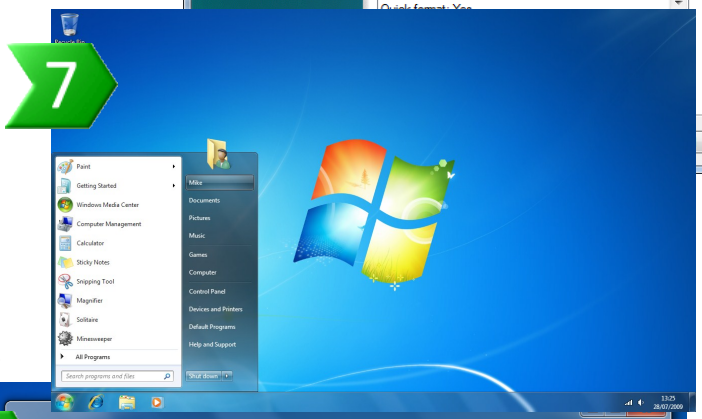


You now have a fresh partition. The next step is to move your document folders to it.



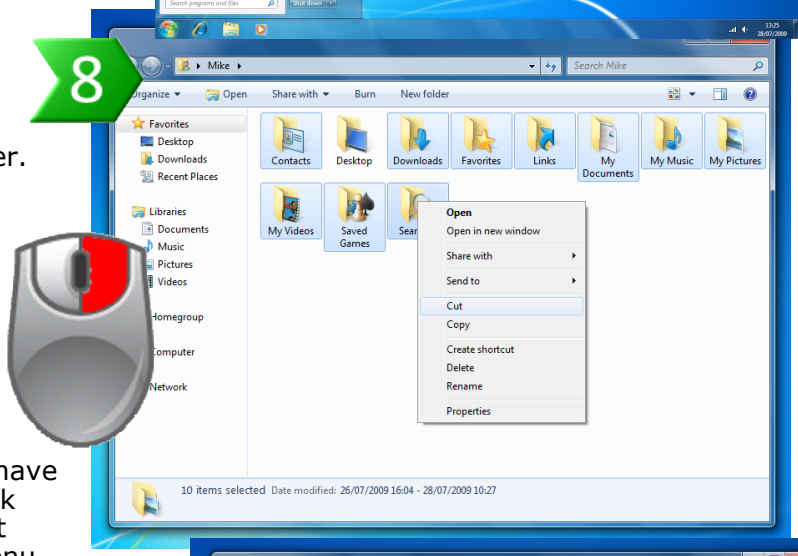
PART 2—MOVING YOUR FILES

7 Open the *Start Menu* and click on your name at the top right to open your user folder.



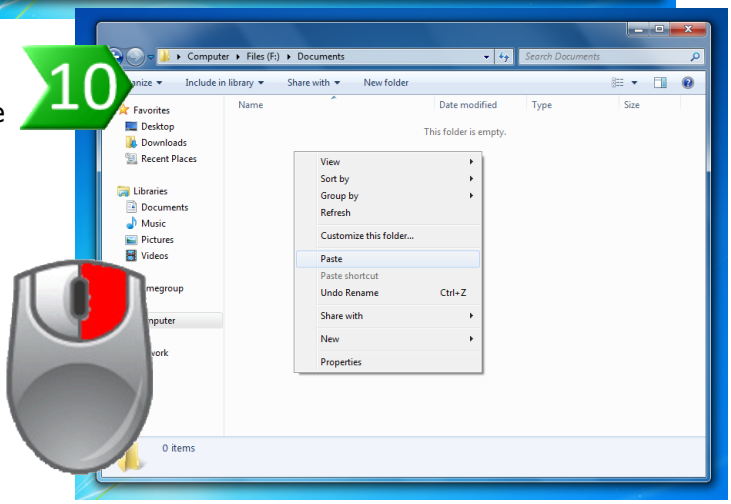
8 Select all the folders in the user folder (except *Desktop* which doesn't like being moved). You can do this by holding down the *CTRL* key and clicking each folder.

Right Click on one of them when they are highlighted and select *Cut*.



9 Use the *Navigation Pane* to find the new empty partition you have created. In any blank space *right click* and select *Paste* from the context menu that appears.

10 You user folders will now be moved to the new drive or partition.



Part 4

Working

The Windows 7 Power Users Guide

by Mike Halsey

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MANAGING WINDOWS

In part 2, **Installing**, I wrote about some of the new and improved desktop features in Windows 7. These included the new *show desktop* button and improved thumbnails on the taskbar. There are yet more enhancements to the Windows 7 desktop to aid productivity.

AERO SNAP

Aero snap is a new way to quickly use and arrange windows on your screen. Aero snap works in two ways.

If you drag a window to the top of the screen it will maximise to fill your entire screen. Dragging it back from the top will restore it to its original size

Alternatively if you drag a window to one side of the screen it will expand to fill exactly 50% of your screen, either left or right, depending on what side of the screen you dragged it to. This can be extremely useful when working with, for example, two explorer windows to move or compare documents.

Dragging a window back from the side of the screen will return it to its previous size.

AERO SHAKE

HP PR UL

Aero shake is a good way to get rid of all the windows on the screen except the one you are working on.

If you grab a window and shake it with your mouse all the other open windows on your screen will be automatically minimised.

If you shake the window again the windows will be restored to the desktop.

TURNING OFF AERO SNAP AND SHAKE

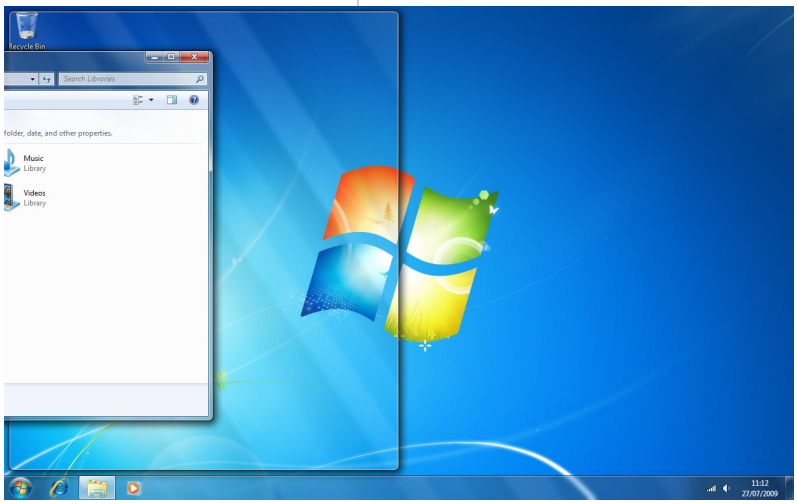
Aero Snap and *Aero Shake* can cause inconvenience for people with motor problems. Go to the *Ease of Access* centre in the Start Menu and click on *Make the mouse easier to use* you can tick *Prevent windows from being automatically arranged...* to turn it off.

QUICK TIP

Working on two windows side-by-side

It's easy to work on two windows side-by-side in Windows 7 using *Aero Snap*.

Just drag one window to the far left of your screen and the other to the far right. They will expand to fill exactly half of your screen on each side so both can be seen at once.



QUICK TIP

Make accessibility easy

Open the Start Menu and type *ease* into the search box there. The option *Let Windows suggest ease of access settings* will appear.

This is a wizard with a short questionnaire to help determine what ease of access settings will be best for you.

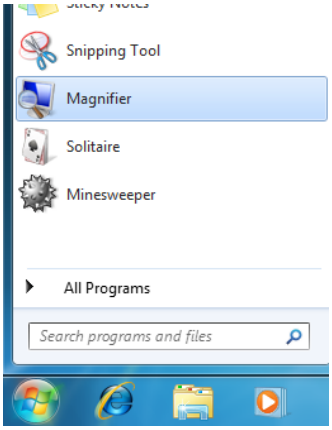
When the questionnaire is complete the appropriate settings will be displayed for you, so you can switch them on if you wish.

ACCESSIBILITY

Over the years Microsoft has gone to great lengths to make Windows as easy to use as possible, and with Windows 7, things have been further improved. The *Getting Started* panel, which is the first thing to appear in the *Start Menu* after installing Windows 7, gives you the option to change the text size on the screen. More about this later.

MAGNIFIER

Shortly after installing Windows the *Magnifier* will arrear in the Start Menu. This is an excellent tool if you are finding your way around, and finding access to the *Ease of Access Centre* difficult. It will increase the size of everything on the screen and moves with your mouse, making it easy to get around the desktop.

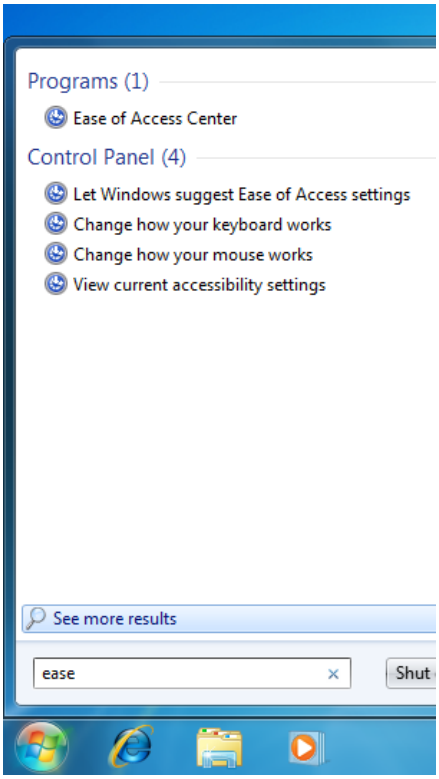


EASE OF ACCESS CENTRE

Opening the Start Menu and typing **Ease** into the search box will bring up results for the *Ease of Access Centre* and associated features.

One especially useful feature is called *Let Windows suggest Ease of Access Settings*.

This is a short questionnaire that will recommend the settings you should change and take you directly to them, all on one page for easy management.



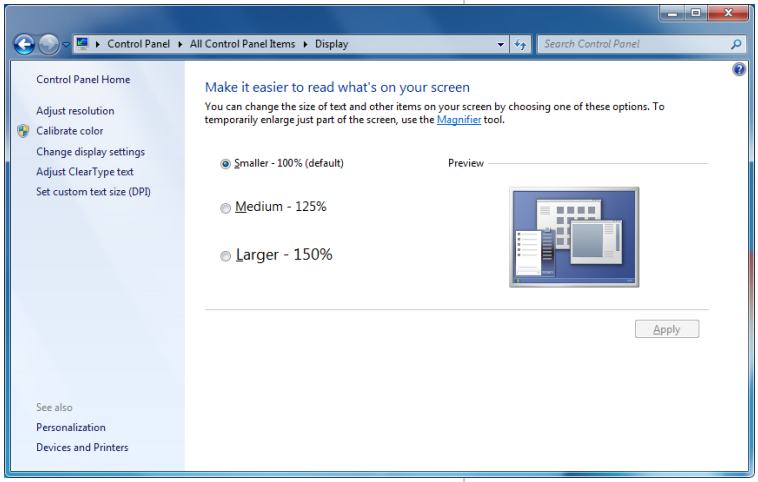
The *Ease of Access Centre* is the control panel for everyone who might have problems with their sight, hearing, motor control and concentration.

Everything in the *Ease of Access Centre* is automatically read out to you, if you have speakers connected to your PC.

If more than one person uses your PC, clicking *Change Administrative Settings* in the left hand pane will allow you to also set these settings for the log-on screen.

SCALING YOUR DESKTOP SCREEN

A new feature with Windows 7, and by far one of the best is the ability to scale the desktop by up to 150%.



This increases the size of everything on the screen without making your picture fuzzy.

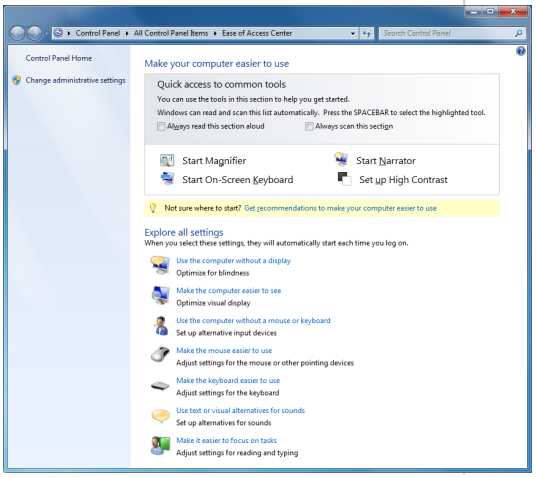
Until now the only way to do this was to reduce the resolution on your screen. This doesn't work well on flat screen monitors as the picture distorts. The new scaling options get around this and the effects are very sharp.

There are two ways to get to this setting.

In the Start Menu, open the *Getting Started* panel and click on *Change Text Size* (in the Getting Started jumplist) or *Change the size of the text on your screen* (in the full window).

Alternatively right click in blank space on your desktop and select *Screen Resolution* from the menu that appears. In the Window that opens click the link *Make text and other items larger or smaller*.

MORE ON WINDOWS ACCESSIBILITY



You can find out more about the accessibility options in Windows 7, and see demonstrations at...

www.microsoft.com/enable

QUICK TIP

Scaling the desktop

Many people can find text and cons hard to see on today's high resolution screens.

Opening the *Display* settings from the *control panel*, *right clicking in any empty desktop space* or from within the *Getting Started* window you can select *Change the size of text on your screen*.

This will scale everything o your screen by up to 150% without blurring it, making things considerably easier to read.

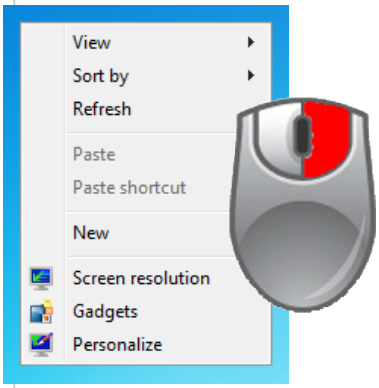
QUICK TIP

The Calculator

The Windows calculator has long been a forgotten feature, but in Windows 7 it has been considerably improved and now includes conversion utilities, several panel layouts and additional features such as mileage and mortgage calculators.

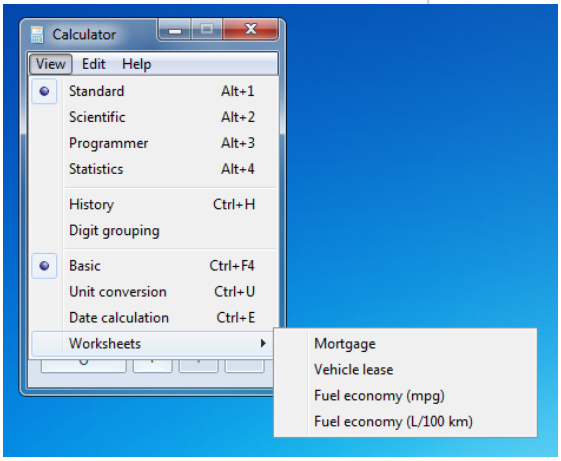
DESKTOP GADGETS

Right clicking anywhere in a blank space on your desktop will bring up a context menu from which you can select *Gadgets*. These are the same utilities formerly seen in Windows Vista's now defunct *Sidebar*. You can drag and drop these gadgets anywhere into your desktop and click the link *Get more gadgets online* to download more from the Microsoft website.



CALCULATOR

The calculator has been significantly improved in Windows 7. Clicking the *View* menu in it now brings up a host of new features including unit (length, weight, volume etc.) and date conversion and mortgage calculations.



PAINT

Windows Paint is another application that has had a major makeover can now includes image cropping and scaling features. As a basic graphics package it's now reasonably powerful and features the useful ribbon interface first seen in *Microsoft Office 2007*.

SNIPPING TOOL

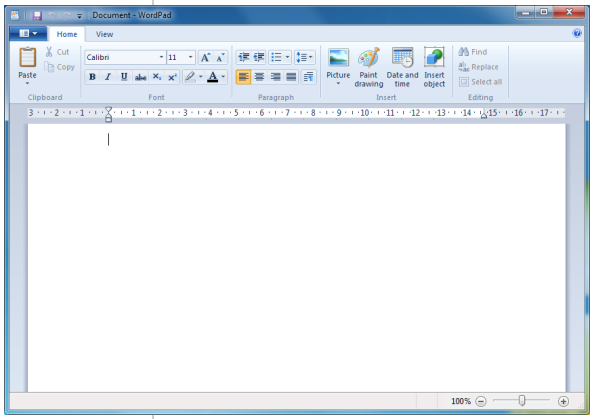
Typing *snipping* into the search box in the Start Menu will bring up the snipping tool. This can be used to capture areas of the screen as graphic images.

XPS VIEWER

Adobe's PDF may still be the format of choice for portable documents but Microsoft's XPS is still with us. Windows 7 includes a built-in XPS viewer so you can view these files.

WORDPAD

Wordpad has had a significant update with Windows 7 and now not only uses the helpful ribbon interface first seen in *Microsoft Office 2007* but also will open Word 2007 and open document format files.



STICKY NOTES

Formerly a Windows Vista *Sidebar* gadget (but still available to download as a desktop gadget if you want), *Sticky Notes* are now an application of their own. You can pin these to the desktop and resize them to the size you require.

OTHER TOOLS

Additional tools such as *Notepad*, *Sound Recorder*, *Fax and Scan* and *DVD Maker* are all still in Windows 7 and have all been improved with this edition.

TOUCH CONTROL

HP PR UL

One completely new feature in Windows 7 is touch screen and multi-finger touch screen support on compatible hardware you can use touch and gestures to use Windows. These gestures are applicable to both one and two-handed operation.

MULTI-TOUCH GESTURES

There are two types of single finger gesture, a tap and a flick. A tap will act as a mouse click, so tapping a button will press the button and double tapping an icon will open it for you.

Two finger gestures extend to software such as *Windows Photo Viewer*, *Word*, *Internet Explorer* and *Google Earth*.

Taking hold of a picture or document and dragging your fingers apart will zoom inwards. Conversely, moving your fingers closer together will zoom out. You can also rotate images by rotating your fingers on the screen.

QUICK TIP

Press and tap = right mouse click

There is a way to simulate the *right mouse click* with Windows 7 multi-touch.

If you press the screen with one finger and then tap it with the other, this will bring up context menus in the same way as a right mouse click would.

QUICK TIP

Windows touch features availability

The new Windows touch features are exciting and will be of great use to some people. Make sure you buy the correct edition of Windows however.

Touch and multi-touch controls are only available in *Windows 7 Home Premium*, *Windows 7 Professional* and *Windows 7 Ultimate*.

MULTI-TOUCH SOFTWARE

Multi-touch technology is still very new, but as more PCs support it, more software will be released to take advantage of it. Windows 7 includes some useful touch-based utilities.

TABLET PC INPUT PANEL

Formerly in Windows Vista but now improved, this will enable you to use handwriting directly with Windows 7 and its applications.

Typing *Handwriting* into the search box in the Start Menu will bring up the option to personalise the handwriting recognition to teach Windows 7 how you write and minimise errors.

ON SCREEN KEYBOARD

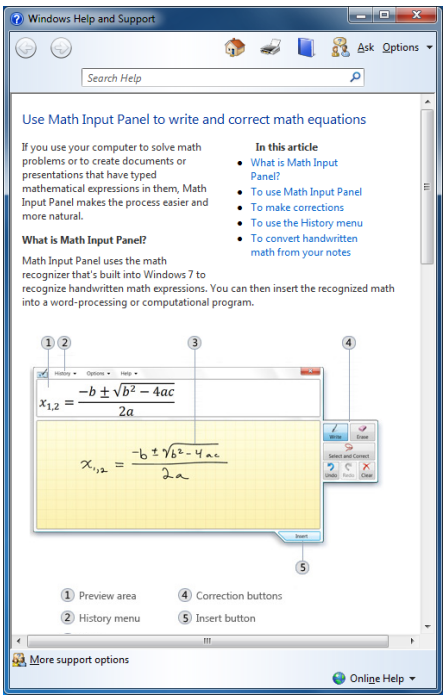
Similar to the *Tablet PC Input Panel* this will enable you to type directly onto the PC's screen with your fingers or mouse.

WINDOWS JOURNAL

Windows Journal is a new notepad that will allow you to write directly onto it using handwriting (either a finger or stylus).

MATH INPUT PANEL

The new *Math Input Panel* (note the US English spelling if you're searching for it) is a useful new tool for using touch to solve mathematical problems and equations or for writing equations and complex algebra into other documents, such as *Word*.



SPEECH RECOGNITION

You can also now dictate text to Windows 7 and it's applications directly and a wizard is available to help you train the software to recognise your voice.

MEDIA PLAYER AND PHOTO VIEWER

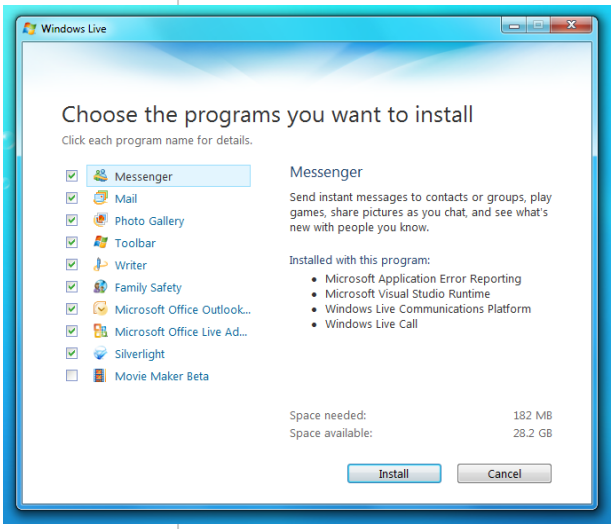
Windows Media Player and *Windows Photo Viewer* are still part of Windows 7, but I won't go into these in too much detail because of the availability of...

WINDOWS LIVE ESSENTIALS

Several programs such as *Windows Mail* and *Windows Movie Maker* have been removed from Windows 7 and are now instead part of the separate *Windows Live Essentials.* You can download this from...

download.live.com

...or by clicking *Get Windows Live Essentials* in the *Getting Started* panel from the Start Menu.

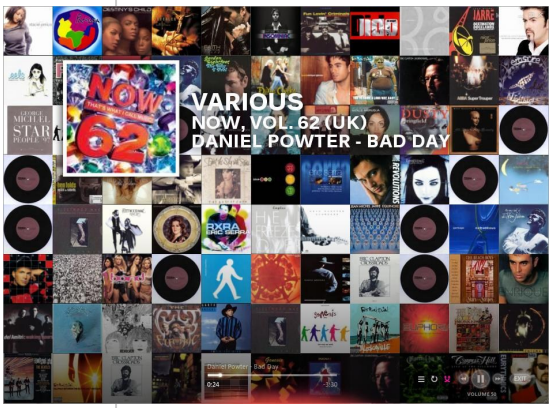


This is an excellent suite of free software with *Mail* and *Photo Gallery* deserving particular praise.

ZUNE PLAYER

Microsoft's *Zune* MP3 player, sadly only available in the US and Canada (at the time of Windows 7's launch) is accompanied by an excellent media player that you don't need to own a Zune to use. You can download the Zune media player from...

download.zune.net



SIDESHOW

Windows sideshow is a utility that allows compatible devices to display interactive content on an external screen (such as on the lid of a laptop) even when the PC is sleeping. You can access *Sideshow* gadgets in the *Control Panel* from the Start Menu.

QUICK TIP

Parental Controls and Windows Live Essentials

Under Windows 7 you will not need to download and install *Family Safety* with the Windows Live Essentials suite, as Windows 7 already has full parental controls built-in to the operating system.

QUICK TIP

Work longer when you're mobile

The mobility centre is a great way to squeeze more life out of the battery on your laptop or netbook.

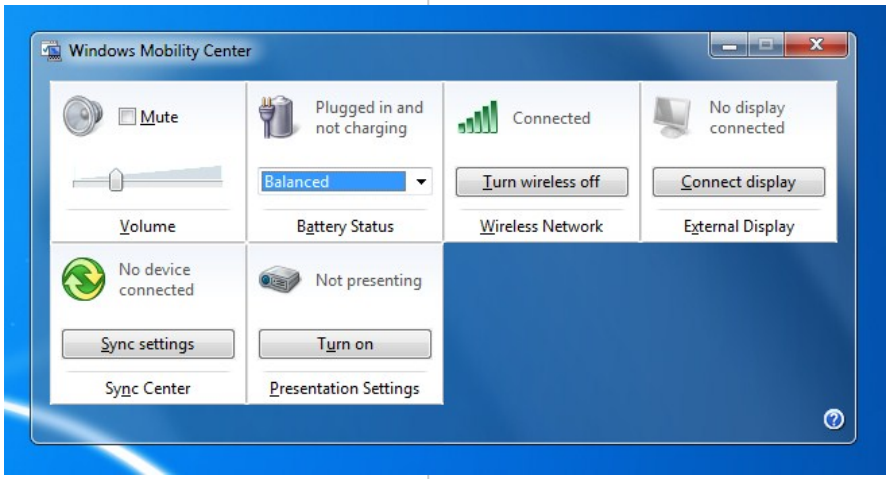
It can help you maximise battery life bys witching off features you might not need such as sound, and by reducing the overall power consumption of components such as your screen.

MOBILITY CENTRE

On laptops and netbooks you can access the *Mobility Centre* from the Control Panel or Start Menu.

This panel provides quick access to the major power-saving settings that can extend the battery life on your device when you're out and about.

It also provides access to a new facility allowing you to connect your PC to a remote or network projector.

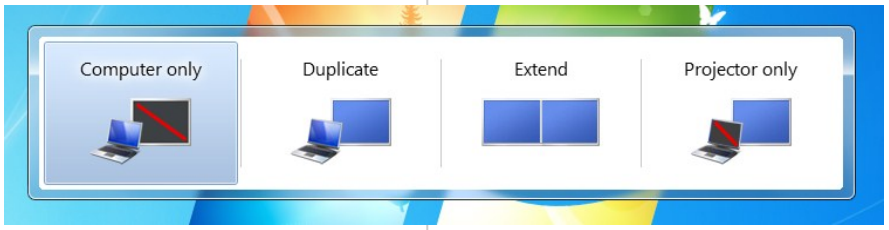


USING A PROJECTOR

Windows 7 makes it easy to use a projector, either connected directly to your PC, or located through a network. With *Connect to a projector* and *Connect to a network projector* in the Start Menu.

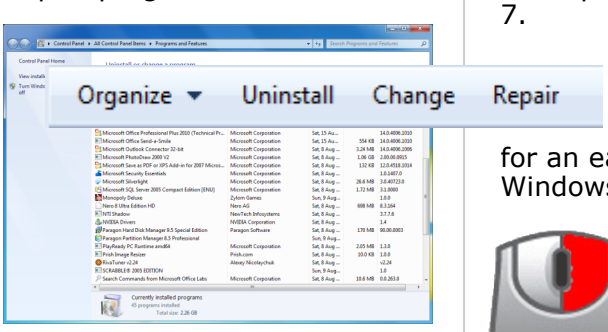
MULTIPLE DISPLAYS

The same interface that handles attached projectors also helps you manage multiple monitors. Press the *Windows key* and *P.*



UNINSTALLING AND REPAIRING PROGRAMS

Accessed from the *Control Panel* or a Start Menu search, *Programs and Features* is your central location to remove and repair programs.



Clicking on a program will bring up either just an option to *Uninstall* it in the toolbar, or other options such as *Change* and *Repair*.

The repair option can be very useful if a program is misbehaving.

WINDOWS COMPONENTS

Clicking on *Turn Windows features on or off* in the left pane of this window will bring up a full list of Windows 7's components that can be switch on or off.

If there are any features within Windows you don't want, or if there is anything that is not current available and you would like to switch on, you can find it here. You do not need your Windows install DVD to perform these actions.

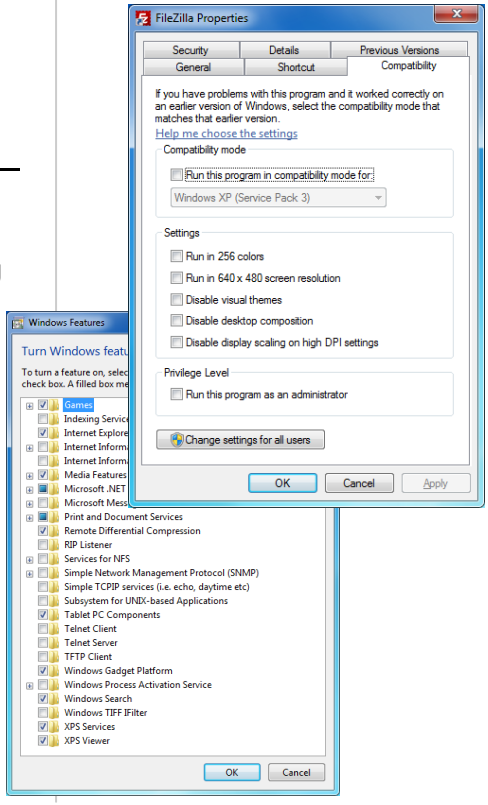
COMPATIBILITY MODE

Some programs won't run normally because they were designed for an earlier version of Windows and are incompatible with Windows 7.

You can run these programs in *compatibility mode* for an earlier version of Windows.

Right click on the program in the Start Menu and from the context menu that appears select *Properties*.

Under the *Compatibility* tab tick *Run this program in compatibility mode for* and select from the drop down the version of Windows you require.



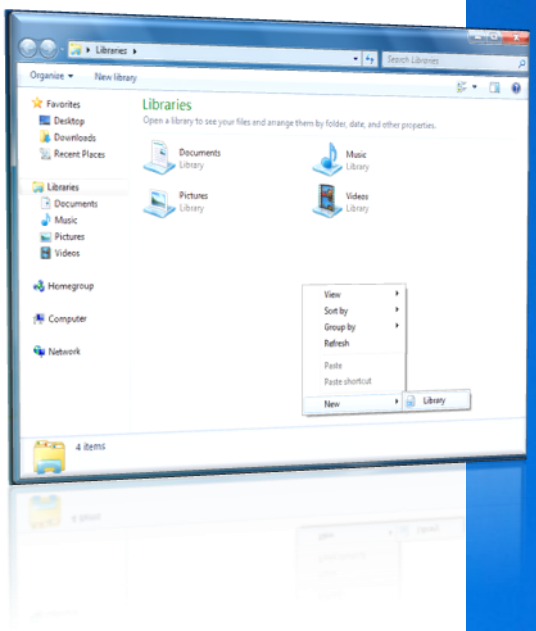
QUICK TIP

Repair your programs

If a program is misbehaving it may have a repair option.

Open *Programs and Features* from the *Control Panel* and click on the offending program. A series of options will appear in the blue toolbar above it. *Repair* might be supported by this program.

Part 5



Searching

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Search from the Start Menu

Just hitting the Start Button will instantlybring up a search box.

You won't then need to click in it. The 'focus' is automatically taken by the search box so you can start typing straight away.

Contextualised search

Depending on where you're searching from, the results you get will change. Searching from the Start Menu will prioritise programs and control panel items, from within a pictures or photos view will prioritise images and so on.

SEARCH IS EVERYWHERE

Search is built into every aspect of Windows 7, and as we get more and more files, documents, photos, music and videos in our personal libraries it can become harder to find things, especially if we haven't looked at them in a while.

SEARCHING IN CONTEXT

Search in Windows 7 works in a contextual way depending on what you're searching in. For instance, search in the Start Menu will prioritise Start Menu items and programs, search in Explorer will prioritise documents and pictures, search in Internet Explorer will prioritise Favourite websites and browsing history and so on.

START MENU SEARCH

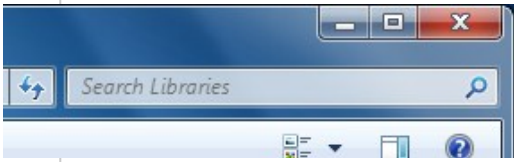
When you open the Start Menu you can start typing in the search box there without having to click in it. Anything you type will automatically be there.

Any search results will appear in the Start Menu itself.

Searching here will prioritise Start Menu items, programs, Control Panel items and system settings. However files and documents should also appear.

EXPLORER SEARCH

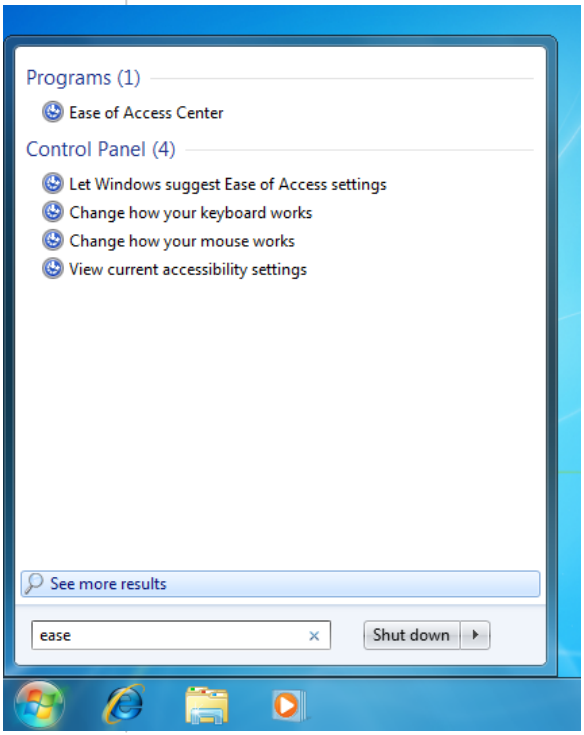
The search box in explorer windows is always in the top right. Searching here will first prioritise the folder you're looking at and then your documents, photos, pictures and music.



OTHER PROGRAMS

Search boxes in other programs such as Windows Media Player, Zune player and Internet Explorer will all be found in the same place, in the top right of the window.

Searching in these programs will prioritise searches too, so searching in Windows Media Player will prioritise music.

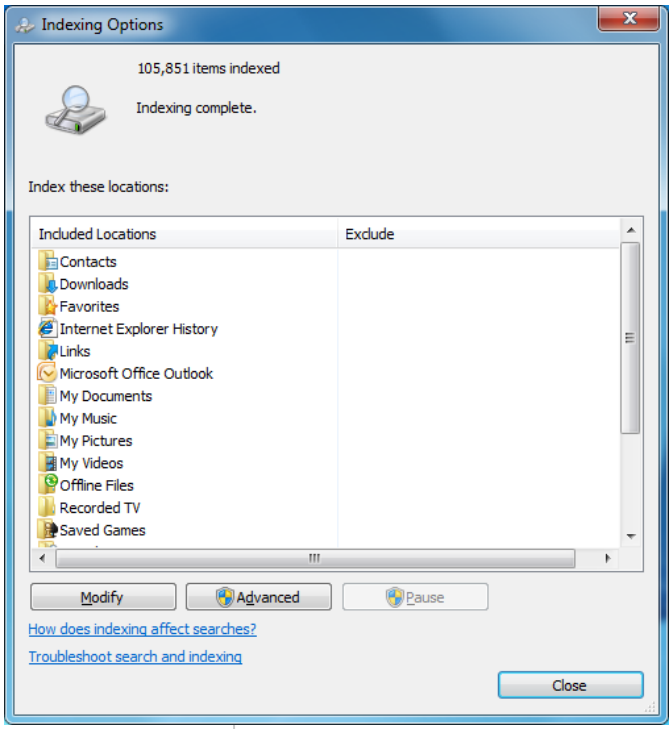


INDEXING

Instant search is possible in Windows 7 because the operating system constantly manages and maintains an index of all the files on your disk(s).

You can access the controls for this by searching in the Start Menu for *Indexing* or Opening *Indexing Options* in the *Control Panel*.

If you are finding that some files and folders aren't displaying in searches, it may be because those locations aren't in the index.

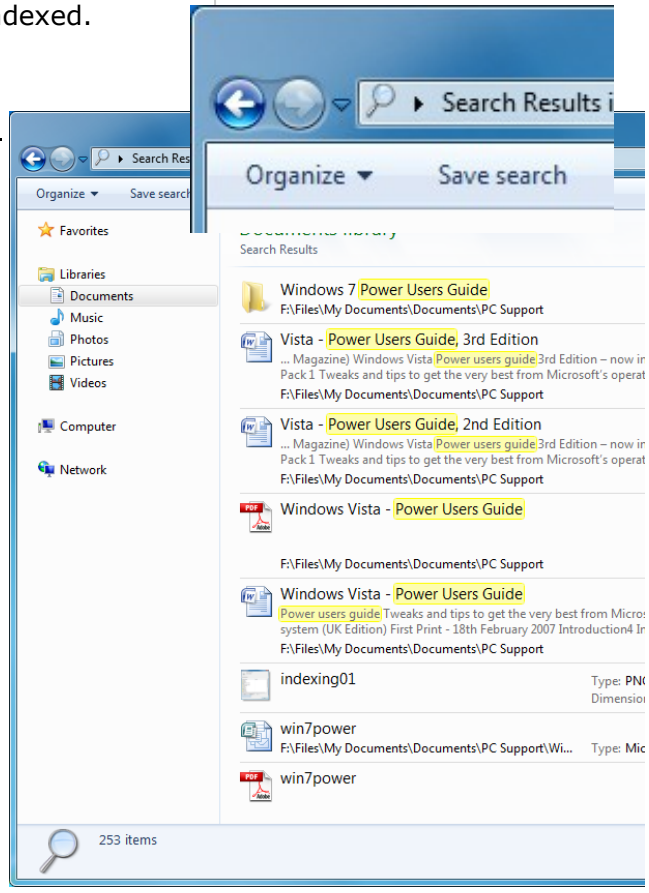


To add a location in the index, open *Indexing Options* and press the **Modify** button in the window that appears then **Show all locations**. You can now tick and untick locations you do and don't want indexed.

SAVED SEARCHES

When you perform a search you have the option to save it. When you save a search it will be automatically saved to a *Searches* folder in your *Documents* however you have the option to save it elsewhere if you wish.

Reopening a save search will automatically update it with the latest information, so your saved searches will always be up to date.



QUICK TIP

Controlling indexed locations

If you find that items you would expect to appear in searches are missing check the index.

This is where all the locations are included in searches are listed. Get to it through *Indexing Options* in the control panel.

If a folder is missing form the index you can add it by pressing the *Modify* button then *Show all Locations*.

Finally you just tick and untick the folder locations you do and don't want included.

QUICK TIP

Power searches

The new search in Windows 7, while nowhere near as friendly on the surface as in previous versions of Windows, is incredibly powerful.

The search terms listed on this page are just a small sample of those available.

For a full list of all the search terms available in Windows 7 see Appendix C.

Note: These search terms also apply to Windows Desktop search on Windows XP and other products.

ADVANCED SEARCHING

Alas, gone is the simple search of previous versions of Windows to be replaced by a more text-based search. When you start a search a drop down will ask if you want to add a *search filter*.
There and a great many of these which I shall detail but the basic ones *Name:* and *Type:* for file name and file type respectively would be used in the format...

Type: pdf

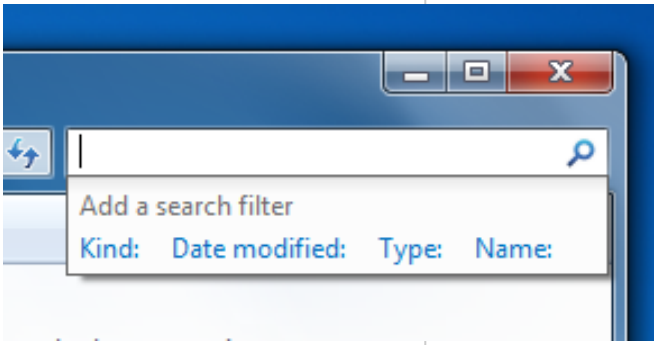
...if you were looking for Adobe Acrobat files. This is a way to help narrow down searches.

SEARCH FILTERS

There are, as I have said, a great many search filters. The full list from Microsoft can be found at...

http://www.microsoft.com/windows/products/winfamily/desktopsearch/technicalresources/advquery.mspx

...however I have included a full list in Appendix C.



BASIC SEARCH TERMS

A full list of search syntax is available in Appendix C however some of the most common are...

Kind: used to search the properties of a document type

Kind:email
Kind:tasks
Kind:notes
Kind:docs
Kind:music
Kind:song
Kind:folders
Kind:programs

Datemodified: to search by the date a file was modified

Datemodified:22/10/2008
Datemodified:22/10/08
Datemodified:yesterday
Datemodified:lastweek
Datemodified:pastmonth
Datemodified:27/03/03..1/4/08

Type: to search by file type

Type:image
Type:.doc
Type:.pdf

Name: searching by file name or by a property name for a file

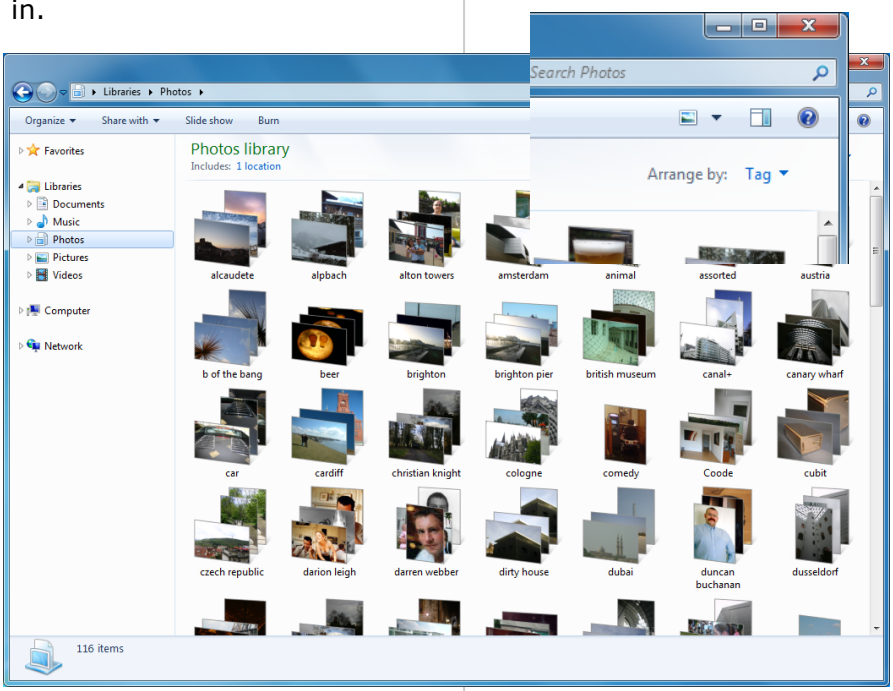
Name:holiday
Name:wedding

Unfortunately the search syntax doesn't let you double-up on search terms. For instance typing *type:.docx, .pdf* won't bring up search results for all Word *and* PDF files.

LIBRARIES

A new feature in Windows is called *Libraries* and opening an explorer window will display your libraries by default.

Libraries are, in essence, aggregated storage for all your files, regardless of what folder or disk drive they are located in.



By default there are four libraries set up for *Documents*, *Music*, *Pictures* and *Videos.* All the appropriate documents in your Documents, Music, Pictures or Videos folders will appear in these libraries as a list of all available files. The folder structure for those files will be ignored.

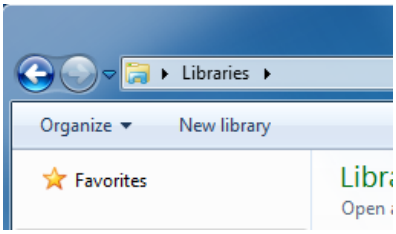
Libraries have their limitations, for instance you can't create a library of all the Excel spreadsheets on your computer, but they are still very powerful.

ORGANISING LIBRARIES

In the top right of every library is an *Arrange by:* option. This will give you the option to sort the files in the library by a variety of methods depending on the content.

CREATING A LIBRARY

You can create additional libraries easily, I for instance have one just for my photographs. In the main libraries view click the *New Library* button and give it a name.



QUICK TIP

Build yourself custom libraries

Libraries are an extremely useful way of finding files that are scattered across your hard disk.

You can create custom libraries that are displayed exactly how you want.

For example, the custom library shown (left) is displaying all the photos on my computer **arranged by** *tag*.

This means that, no matter where a file is, I can instantly see all the photos of Dusseldorf or my dog Jed.

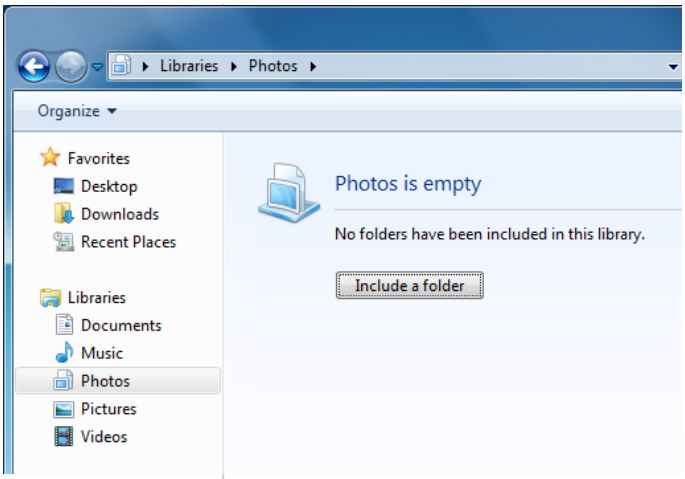
QUICK TIP

Add more locations to libraries

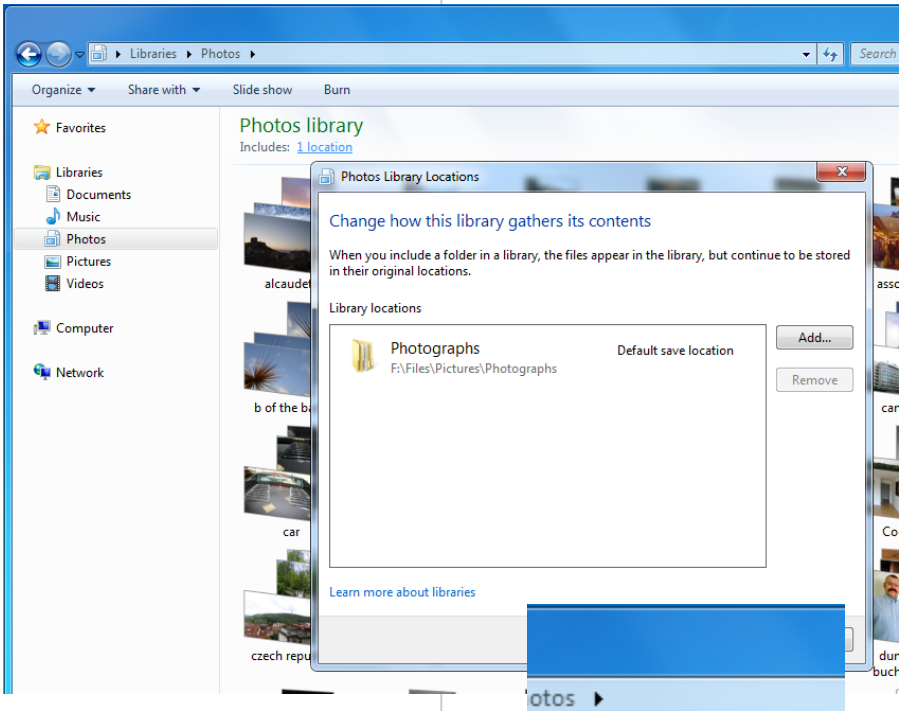
You can add as many drives and folders to libraries as you like, though you cannot add removable storage such as USB pen drives.

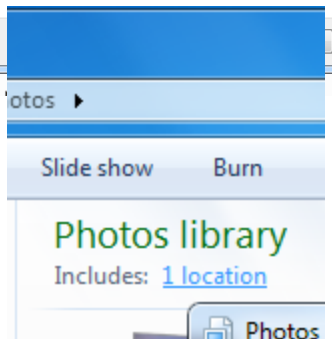
Adding and removing folder locations in Libraries is easy, just click the *Includes: 1 location* (the number may be different) to bring up a wizard that will easily help you add and remove folder locations.

You will now be taken into your new Library and invited to add folder to it. The contents of that folder can be added to the Library.



You can add as many folders as you like to a Library or remove them at any time, and the Library will be automatically updated.





Clicking the *Includes: 1 location* link under the library name in the top left of the explorer pane that displays the library contents will bring up a window allowing you to do this easily and quickly.

Note: It can take Windows a little time after installation to index your files, libraries may seem incomplete until this is done.

TAGS

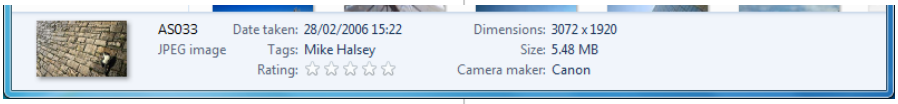
One way to make search easier is to add *tags* to your files. *Tags* are words that are related to the file, a good example is the information accompanying music files.

Each music files will contain the following information, *Track name, Artist, Supporting Artist, Album, Track number, Composer* among many others.

The *Import Photos and Videos* wizard will also allow you add tags when you plug in your digital camera of camcorder.

RATINGS

Many file types, including *music, photos* and *video* will allow you to add *Ratings*. These are star ratings from zero to five stars.

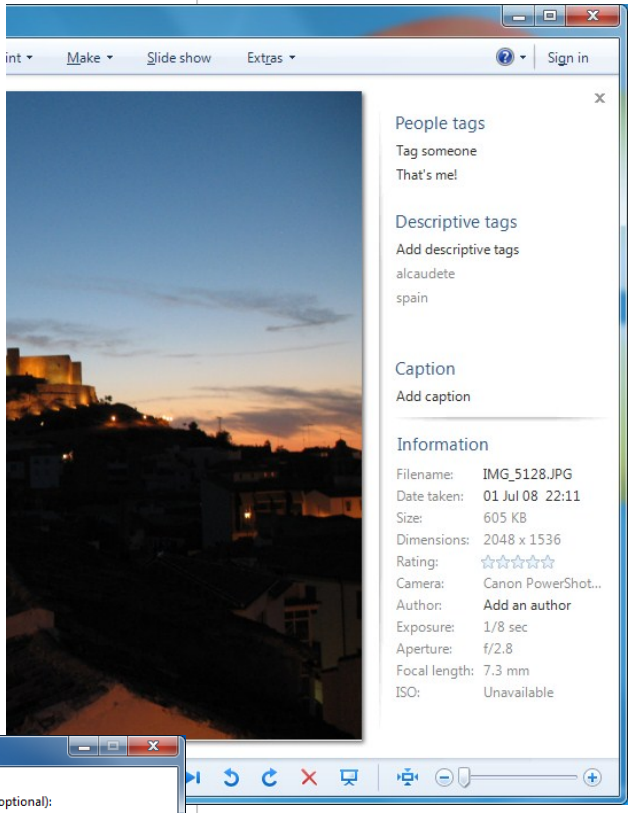


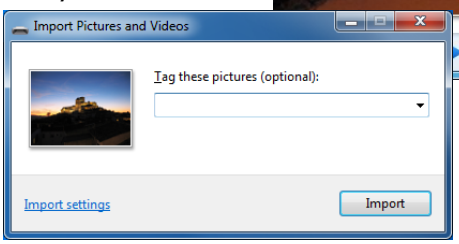
In Windows 7 you can add tags to every kind of file, from Word and Excel documents to pictures, photos and more besides.

Adding ratings to mark your favourite files can also make searching for files much faster and simpler.

You can add tags to a file (or multiple files together) in *Windows Explorer* by selecting the file(s). In the *Details pane* will appear information about the file(s) including any current *Tags*. Clicking next to *Tags* in the *Details Pane* will let you add or update them.

You can also use software such as *Windows Live Photo Gallery* to make adding tags easy.





QUICK TIP

Add tags and Ratings

This can be a chore the first time around but it's one of those jobs that only ever needs doing once.

Adding *Tags* and *Ratings* to your *documents, music, photos* and *video* can make searching your files considerably faster and easier.

You can select multiple files for tagging by selecting them all with your mouse, clicking the first one and holding down the **SHIFT** key while selecting the last one or by holding down the **CTRL** key while selecting multiple files with your mouse.

Part 6

Connecting

The Windows 7 Power Users Guide

by Mike Halsey

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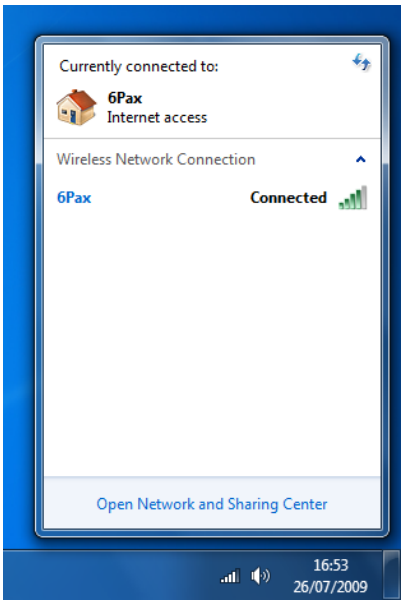
GETTING ONLINE

The first things anybody is going to want to do after installing Windows 7 is get online.

If your PC is connected directly to your router or phone line by a cable you will immediately be online unless Windows 7 has failed to recognise your network hardware (see the chapter *Diagnosing* for what to do if this happens).

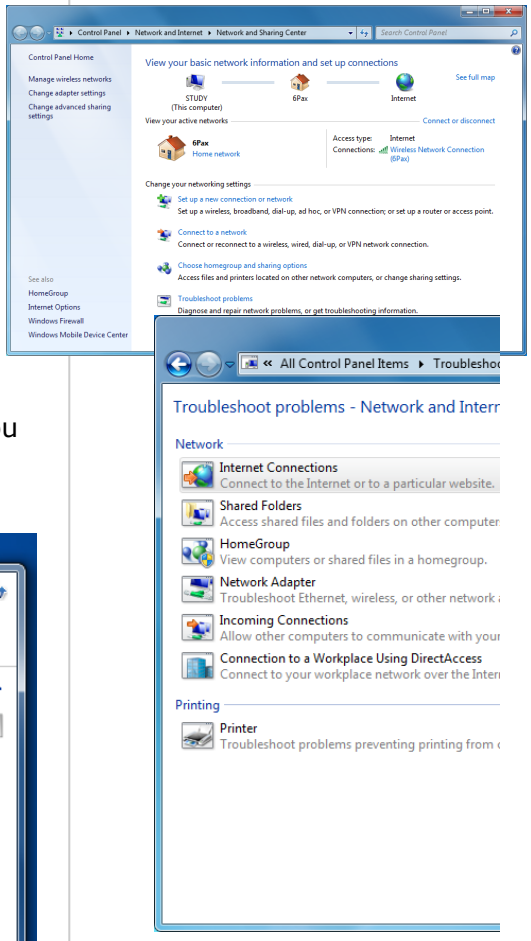
If you connect to the internet via a wi-fi connection then this is simpler to use than previous Windows versions.

In the *system tray* on the far right of the taskbar is the new wi-fi icon, a series of rising white bars. Click this icon once and a window will appear showing all the available networks in your area. You can connect to any with a single click.



NETWORK AND SHARING CENTRE

Also from this window or from the *Control Panel* you can open the *Network and Sharing Centre*. This will show you at a glance the status of your network and internet connection, and other devices and computers your PC can *see* on the network and it will allow you to modify and troubleshoot problems or set up a new connection.



The new *Troubleshoot problems* tool automates many of the steps involved in finding problems with your network or internet connection. This tool will try and diagnose problems and automatically implement solutions for you.

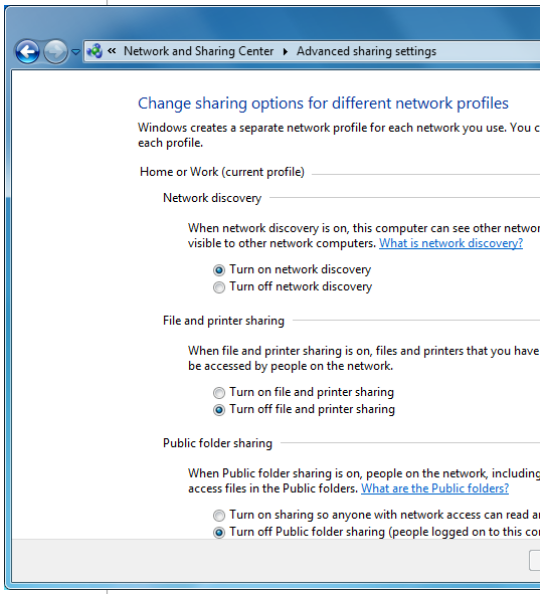
QUICK TIP

Can't get online?

Opening the *Network and Sharing Centre* from the system tray or Control Panel can bring up the network trouble-shooter.

First see if your network is *active*. If it is not select *Connect to a network* or *Troubleshoot problems*.

SHARING FILES, FOLDERS AND MEDIA

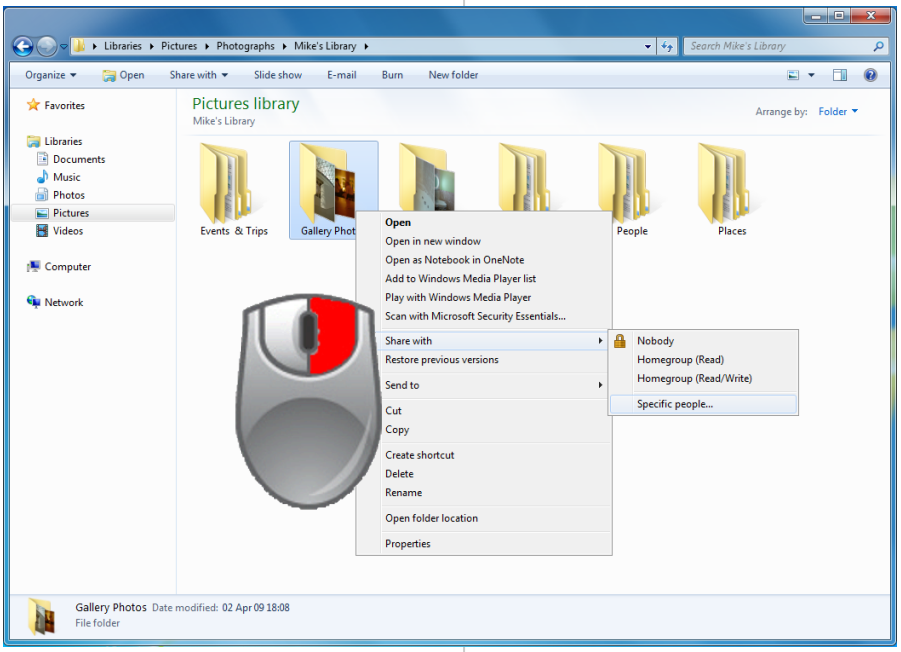


The *Network and Sharing Centre* also allows you to control what you share with other computers and how you share it.

You can share you internet connection, printer(s) and files. The settings here allow you to set what's shared and who can see it.

You can also share folders by *Right Clicking* on one or more in Windows Explorer and selecting *Share with* in the context menu that appears.

You can choose from users on your PC and network who the folder is shared with, or you can share a folder with your *Homegroup*.



QUICK TIP

Sharing security

If you want to share documents, photos, video and music within your home use the *Network and Sharing Centre* to check your security settings are set right.

The security options are clear and easy to understand with plain English descriptions throughout.

Better home sharing

Homegroups are an excellent way to share documents, photos, music and video around your home, offering much better security than simple file and folder sharing.

HOMEGROUPS

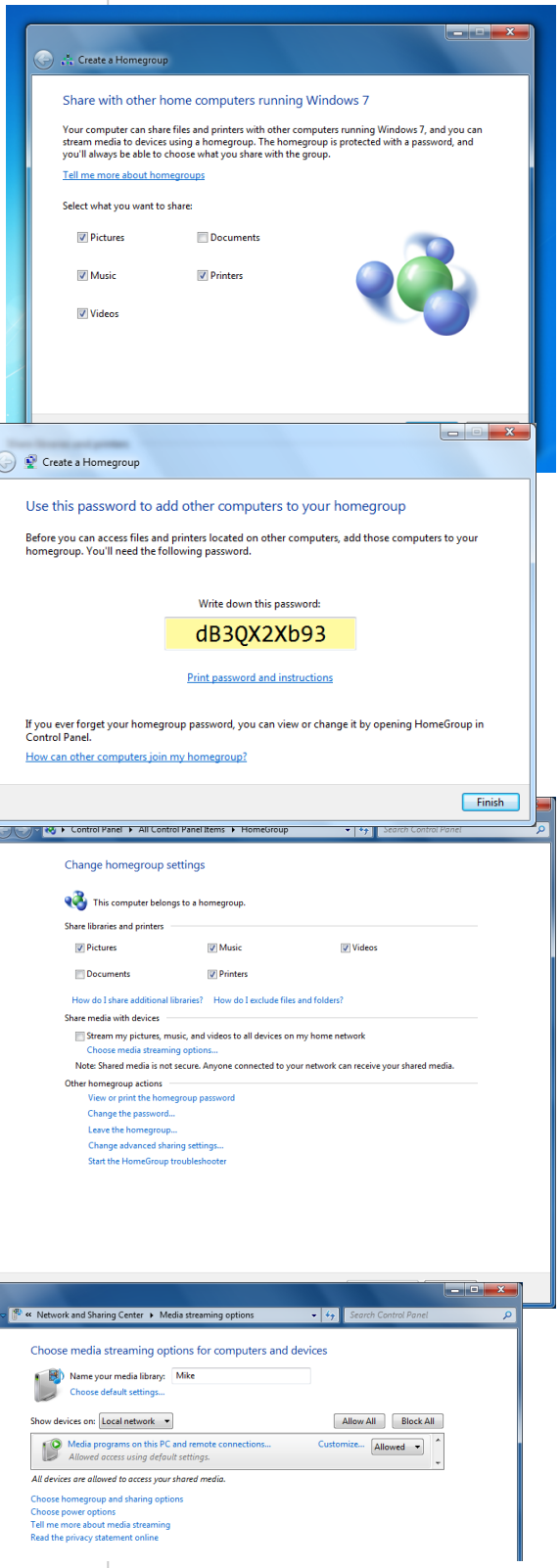
You if you have more than one PC in your home running Windows 7 you can share documents, pictures, music, videos and printers easily by setting up a *Homegroup*.

When you first install Windows 7 at home it will ask you if you want to set one up. A wizard will ask what you want to share and then in a single step will set up everything for you and give you a password, don't lose this.

Any other PC in your home running Windows 7 will be able to log into your *Homegroup* using this password.

Once the *Homegroup* is set up you can change its settings at any point, adding or removing things to share. You can also share individual folders (see the guide on the previous page).

One useful additional feature is the ability to stream media to other PCs and devices. This will mean music and video content can start playing on the other device without being copied across to that device. It plays on the PC it's sat on and can be seen and heard on the other.



QUICK TIP

Consider wireless N

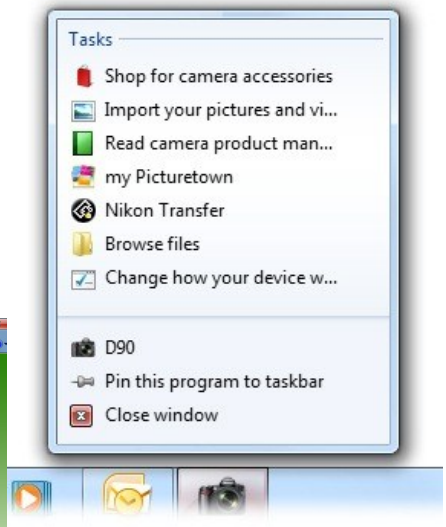
If you use a wi-fi network in your home and want to stream and share video consider upgrading your wi-fi router from the 802.11b or 802.11g to 802.11n standard. These codes are clearly labelled on products either at online stores on in the shops. Wireless N offers much greater bandwidth than previous standards.

This means that video can be sent to other PCs on your network without any worries about it stuttering during playback.

WINDOWS MOBILE DEVICE CENTRE

Any device running Windows Mobile, which includes many mobile phones, now has much better integration with Windows 7.

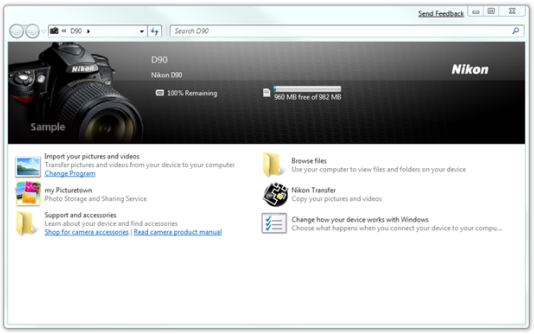
The new *Windows Mobile Device Centre* is excellent at automatically detecting these devices and has simple and easy to use options for synchronising them with your PC.



Depending on the device you can use this panel to buy supplies, get updates, download manuals and also access all the features and functionality of the device.

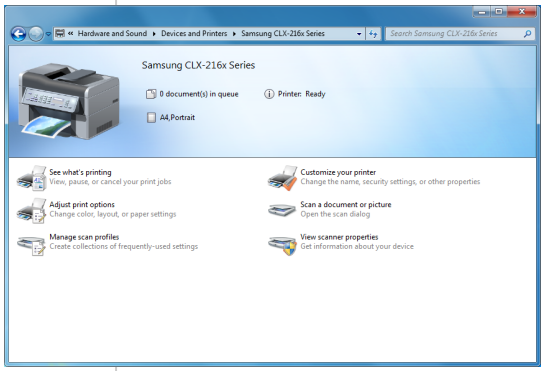
DEVICE STAGE

A new feature for Windows 7, *Device Stage* can provide easy access to features in, and service and product updates for your third -party hardware.



These options are also available from a jumplist on the Taskbar when the *Device Stage* for a device is open.

Accessed through *Devices and Printers* in the Start Menu. Many devices you can plug into your computer such as digital cameras, mobile phones and MP3 players can, if the manufacturer supports it, appear here. Opening the icon will open a new window where you can do more with your device.



QUICK TIP

Device Stage notes

Not every device you plug into your PC will be supported by *Device Stage*. It entirely depends on whether the manufacturer of that device supports it.

If they do there are all sorts of additional services you can get through this feature including being able to easily buy consumables, get fixes and firmware updates and help and support.

QUICK TIP

Do you have a work laptop you use at home?

If you have a work laptop running *Windows 7 Enterprise* this version also features location-aware printing.

You can use this feature to make sure that whenever you press the print button the correct printer will be automatically selected for you by Windows.

LOCATION-AWARE PRINTING

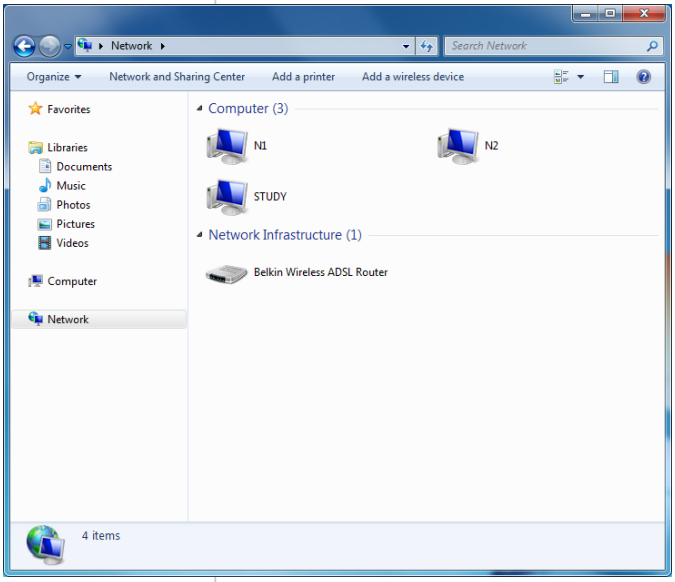
The *Enterprise* and *Ultimate* editions of Windows 7 contain a feature that's very useful for people who use a laptop both at home and at work.

Location-aware printing allows you to set a default printer for both locations. Windows 7 will determine which printer you want to print to automatically by determining which network you are attached to and will change the default printer for that session accordingly.

CONNECTING ACROSS A NETWORK

Windows 7 makes it easy to connect with computers and network-attached storage in your home or work network.

Opening *Windows Explorer* you will see *Network* listed at the bottom of the *Navigation Pane*. Clicking on this will bring up details of any other computer and device your computer can see.



You can open these to view any files the they are sharing or drag and drop them into your *Favourites* to provide quick and easy access in the future.

MAINTAINING NETWORK DEVICES

You can also get quick access to the administrative interfaces of hardware such as routers and network-attached storage in this view.

Right click on the icon for the device will bring up a context menu including options such as *View device webpage* which will allow you quick and easy access to its administrative settings.

Another way to access these is to open the *Network and Sharing Centre* and click on *View Full Map*. Here again you can *right click* on a device to bring up *Management URL* which is quick and easy access to the device's management interface.

Part 7

Securing

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Worst case scenario

Many things can happen if you do not have up to date anti-virus software from your files being deleted and lost to your PC becoming unusable as chips on your motherboard are rewritten.

In the worst cases, criminals can gain access to your bank accounts and steal your identity, running up thousands of pounds of bills in your name.

Do not take risks with your PC security.

HOW SECURE IS WINDOWS 7?

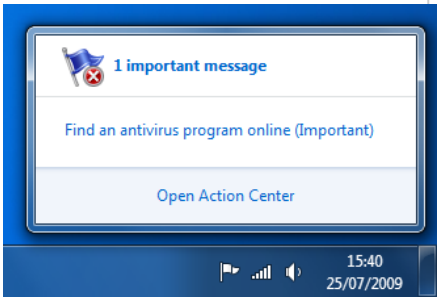
Microsoft Windows has come under fire over the years for being insecure. The simple fact is that Windows is now one of the most secure operating systems you can buy.

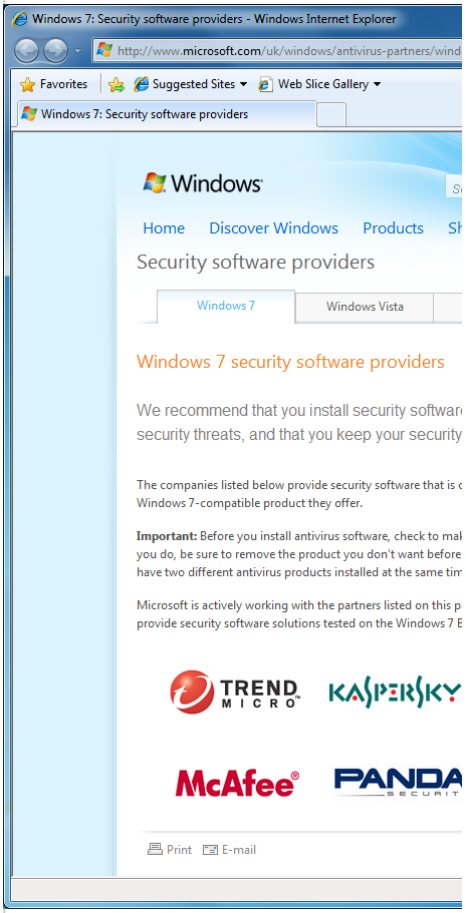
For example, if the first year and a half after the launch of Windows XP there were six or so major security flaws highlighted by the world's press. In the same period after Windows Vista launched, there was only one, compared to two for Apple Mac OS X in the same period.

Windows 7 is even more secure but to guarantee safety and security it can't do it without some help from you.

ANTI-VIRUS SOFTWARE

Widows 7 doesn't come with anit-virus software but for the first time will help you to get it. When you first install Windows 7 the *Action Centre* will alert you to download anti-virus software and will take you to a screen where you can choose one to download and install if you do not have one already.





This screen will take you directly to the website for the anti-virus vendor you choose. My two personal recommendations are **Microsoft Security Essentials** and **AVG anti-virus**, both of which are free although AVG also offer a paid-for security suite that has additional functionality.

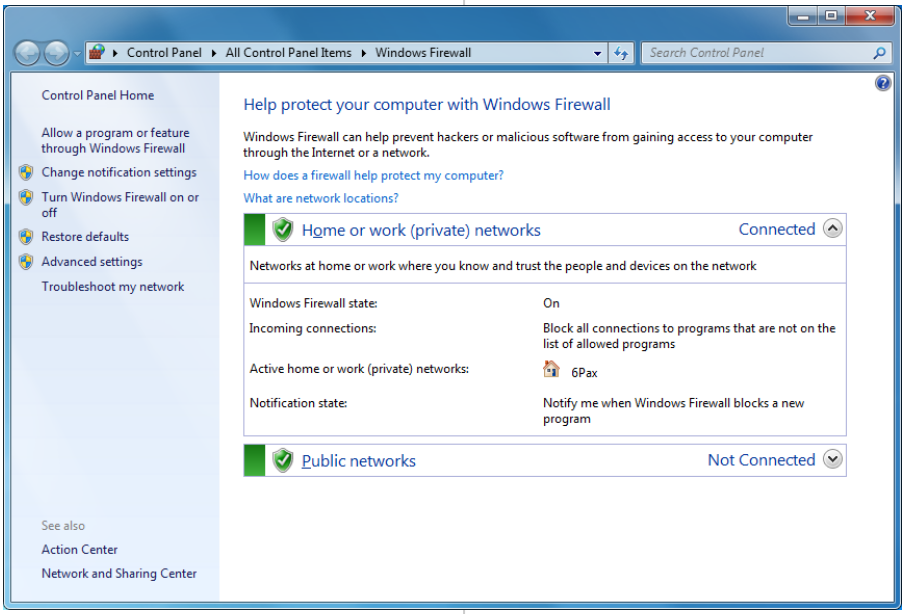
The *Action Centre* will alert you if there are any problems with your anti-virus software, such as it needs updating and hasn't done so automatically.

You should always keep your anti-virus software up to date and running properly as it's the most essential line of defence against attacks from the outside world.

WINDOWS FIREWALL

Built into *Windows 7* is the firewall. This is much improved from previous versions and, if you're careful with your PC security, should be adequate for day to day use.

By default it will be set to provide the protection you need.



THIRD-PARTY FIREWALL

You might additionally want to install a third-party firewall from a vendor such as Check Point or Kaspersky.

This will not affect the *Windows Firewall* and will run happily along-side it.

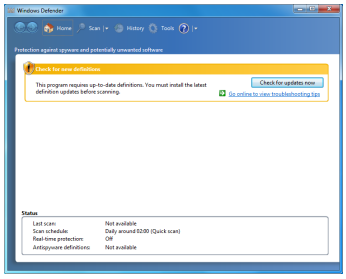
You may also wish to buy a full security suite such as **AVG Internet Security** which will include anti-virus, firewall and anti-spam software among others. These suites are a very good idea.

WINDOWS DEFENDER

The first line of defence in *Windows 7* against spyware and Trojans, though not viruses, is *Windows Defender*. Accessed through the Start Menu, this program will alert you through the *Action Centre* when it needs updating or when a scan should be run.

Windows Defender has a simple interface that allows novice user to quickly a simply update it and search their computers for Spyware.

You can also use third-party spyware removal tools such as **Spyware Terminator** without affecting the performance of *Windows Defender*.



QUICK TIP

Protect your PC from spyware

Windows Defender should not be the only software package on your PC protecting you from Spyware, Trojans and other internet nasties.

In the appendices, you will find my recommendations for the best free and paid-for internet protection software available.

QUICK TIP

Don't switch off UAC!

Many people criticised User Account Control (UAC) when it first appeared in Windows Vista for being, frankly, annoying.

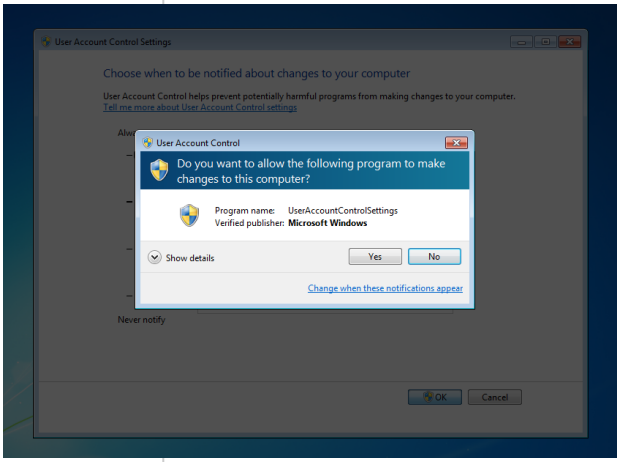
With Windows 7 it's much improved, you should hardly ever see prompts.

You should make sure though that you never switch it off. It performs an extremely important role on your PC, protecting you and your system from all types of attack.

USER ACCOUNT CONTROL

UAC is a security feature that was first seen in Windows Vista to help keep your PC secure.

This feature takes your computer into a protected mode, darkening the screen and asking you for permission to continue, whenever it detects a potential threat to your computer.



It is possible to change how *User Account Control* protects your computer from the *Action Centre*. The four available settings are...

Never Notify me when: programs to try to install software or make changes to my PC, or when I make changes to Widows settings

Notify me only when programs try to make changes to me computer (do not dim my desktop) and don't notify me when I make changes to Windows settings

***Default*—Notify me only when programs try to make changes to my computer** and don't notify me when I make changes to Windows settings

Always notify me when programs try to install software or make changes to my computer or when I make changes to Windows settings.

It is not recommended that you change *UAC* from the default setting as this will provide you with the best protection while not being anywhere near as annoying as *UAC* was in Windows Vista.

PHISHING AND SPAM

Your web browser isn't the only place you can suffer attacks online. They can also arrive in your email inbox.

Spam emails are more nuisance than a worry unless you click on the link contained in them.

Phishing emails are more serious however. These are emails, purporting to be from your bank, building society or from a reputable website such as PayPal, eBay or Amazon, that ask you to log in to confirm your account details.

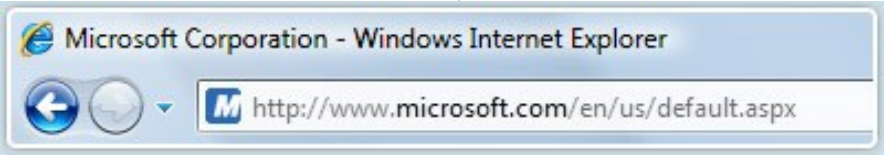
Note: These companies and banks will **never** send you emails like this. If you receive one then you can guarantee it is a fake.

INTERNET THREATS

Internet threats come in many forms but modern browsers all contain security features to help defend against them.

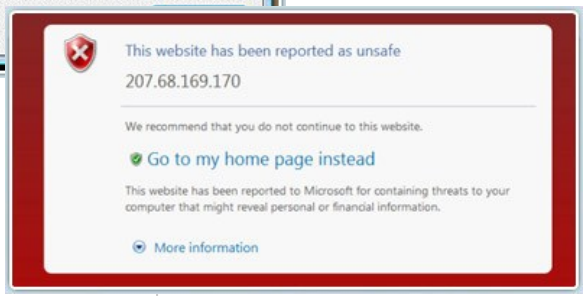
Your web browser will warn you one of three ways to a possible threat.

Changing the colour of the address bar, the place you type web addresses in, will change to either *yellow* or *red* to warn you of the possible threat.



A pop-up warning box will appear in either *yellow* or *red* to warn you of a possible threat.

The entire web page will change to a warning in either *yellow* or *red*.



This may happen when you visit a website or when you try to download something.

DOMAIN HIGHLIGHTING

Another common feature of modern browsers is they will highlight the main domain name you are visiting in the address bar. As in the example below this makes it easy to see if the domain you are visiting matches with what you think it will be.

IN-PRIVATE BROWSING

Internet Explorer 8 and later include a feature called *in-private browsing* (this will have different names in other browsers). This feature allow you to surf the web completely anonymously, with no information about the websites you have visited or any passwords or usernames you have typed, stored on your PC.

QUICK TIP

Look for the padlock

When you're shopping, banking or performing any activity online where your privacy or security could be compromised always look for the padlock.

This will appear in the address bar (left) or, in older browsers, in the status bar at the bottom of the window.

You can click on this to see who owns the security certificate for this website and judge for yourself if you think it is valid and whether you want to trust it.

Phishing sites will regularly look exactly like their real counterparts but will either have no security certificate or will have a fake one.

QUICK TIP

Beware the soft squishy thing

There can be no doubting the fact that the weakest link in the security of any PC is the soft, organic, squishy thing in front of the keyboard.

Always be careful what you click on, what information you give away and to whom.

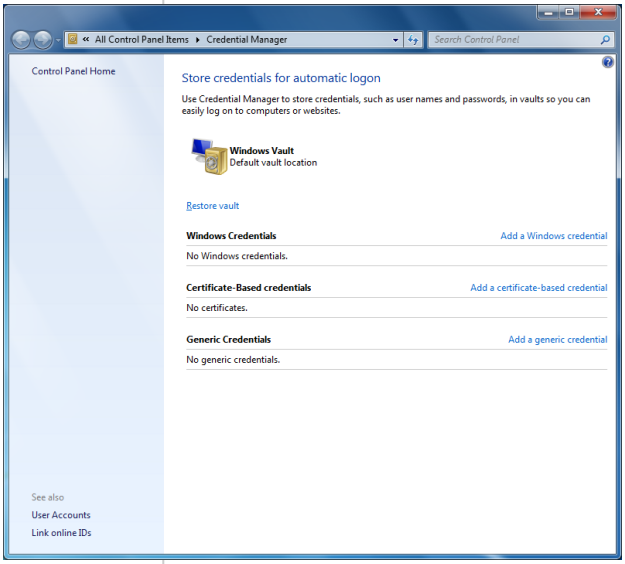
If it looks like it's too good to be true... **IT IS!**

Also no reputable company or bank will **EVER** ask you to confirm your security details, either through a website or over the telephone.

CREDENTIAL MANAGER

Hidden away in the *Control Panel* is the *Credential Manager*. This utility stores all the usernames you use to log into other computers, network locations and some websites.

Not especially useful in itself except that it's possible to create a backup of these login details that you can use on another *Windows 7* PC or to keep if Windows needs to be reinstalled.



WINDOWS UPDATE

I'll talk about *Windows Update* properly in the chapter **Guaranteeing** but a good defence against viruses and Trojans is to make sure your PC is always kept up to date with the latest patches and updates.

SECURITY GLOSSARY

Botnet—A collection of compromised PCs acting together under the control of criminals to launch attacks on corporate and governmental computer systems for blackmail or to compromise them.

Hacker—A person or persons who gain unlawful access to another computer for malicious purposes.

Identify Theft—Unlawful access to your bank account (s), the setting up of credit card or other accounts or the purchase of goods in your name.

Keylogger—A program capable of recording what you type on your keyboard, including usernames and passwords.

Phishing—Emails purporting to be from a bank or website asking you to log-in to confirm your identity.

Plug-in—A control downloaded from a website required to perform an action like watch video. Some plug-ins are malicious.

Spam—Nuisance emails.

Trojan—A program that allows back door access to control a computer.

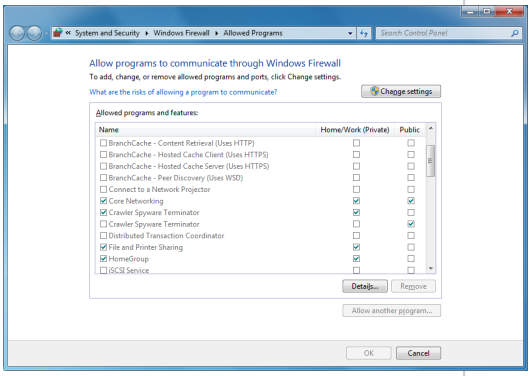
Virus—A malicious program intended to cause harm or disruption on a PC or to a user.

ADVANCED FIREWALL

By default the *Windows Firewall* will provide adequate protection against hackers and malicious websites. However there are times when you require additional control.

FIREWALL EXCEPTIONS

Typing *Firewall* into the search box in the Start Menu will bring up the *Control Panel* option **Allow a program through Windows Firewall**. This is a useful tool if a program has been blocked accidentally, or if something like a game requires additional internet access permissions to work smoothly.

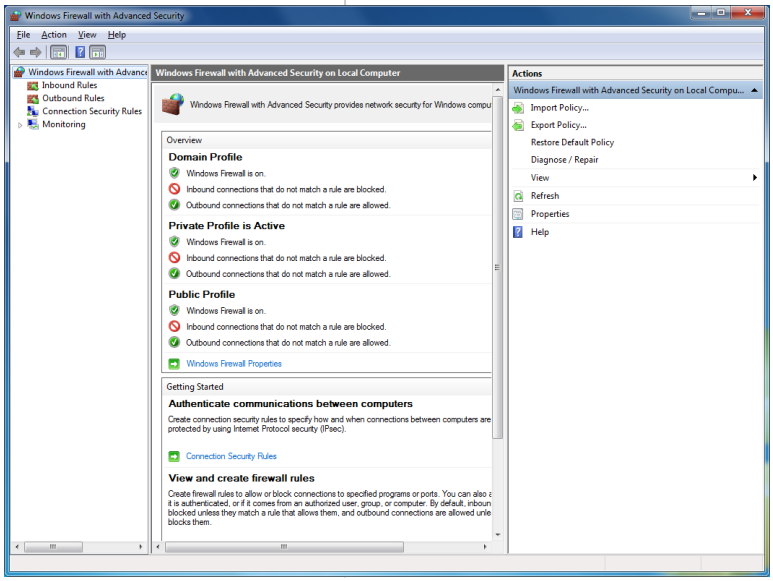


WINDOWS FIREWALL WITH ADVANCED SECURITY

Typing *Firewall* into the search box in the Start Menu will bring up the *Control Panel* option **Windows Firewall with Advanced Security**. This is for advanced users or those with complex network security requirements. Here you can control every aspect of the *Windows Firewall*, allowing specific ports to be open and for specific applications, or to overcome problems with network access.

This facility allows you to define inbound and outbound rules for traffic and monitor firewall activity.

This features is for advanced users only. The basic firewall interface, located in the *Control Panel* is suitable for general Windows users.



QUICK TIP

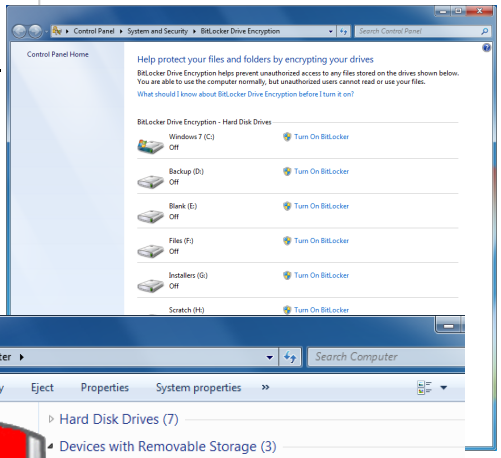
Get safe online

For information on the threats when you're online and how to avoid them the British government, in association with companies including Microsoft have a website you can visit at...

getsafeonline.org

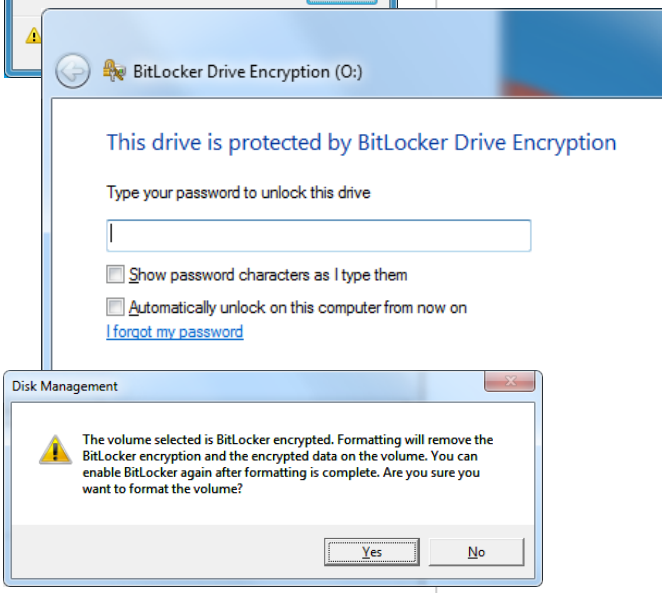
This website includes help, advice and tips for keeping your computer free and your identity secret.

BITLOCKER



Available only in the *Enterprise* and *Ultimate* versions of *Windows 7*, *Bitlocker* is an excellent tool for securing and encrypting full disk drives, thus preventing them from being read if they are removed from the computer or accessed by an unauthorised person.

Ideally the system works with a *TMP* (*Trusted Platform Module*) chip on your motherboard that ties that drive and the rest of the computer together. This system can provide excellent security for workers' laptops.



BITLOCKER TO GO

Bitlocker To Go can encrypt full volume removable disks including USB hard drives and Pen Drives.

It can be set to automatically unlock a drive when it's used on specific PC(s).

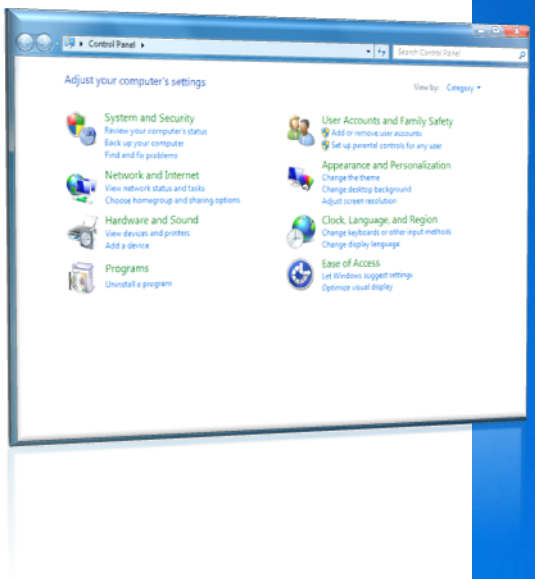
These drives will then only be readable on other computers running *Windows 7* or *Windows Vista Enterprise* or *Ultimate* editions.

QUICK TIP

Removing Bitlocker from a drive

You can remove Bitlocker security from a drive by formatting it. You can do this by right-clicking the disk in *Windows Explorer* or through the *Computer Management* console.

Part 8



Configuring

The Windows 7 Power Users Guide

by Mike Halsey

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PERSONALISATION

HP PR UL

Windows 7 Home Premium and above let you customise your desktop display as you would with any version of Windows, *note this is not available in Windows 7 Starter*.

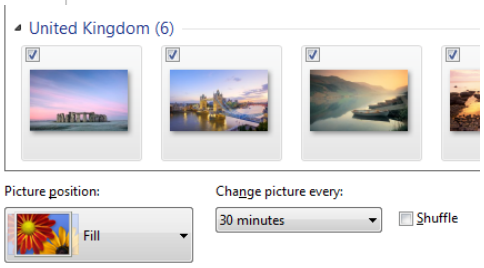
Right clicking on the desktop or selecting *Personalisation* from the *Control Panel* will bring up your options.
This screen has been rationalised from previous versions of Windows and is now much easier to use.

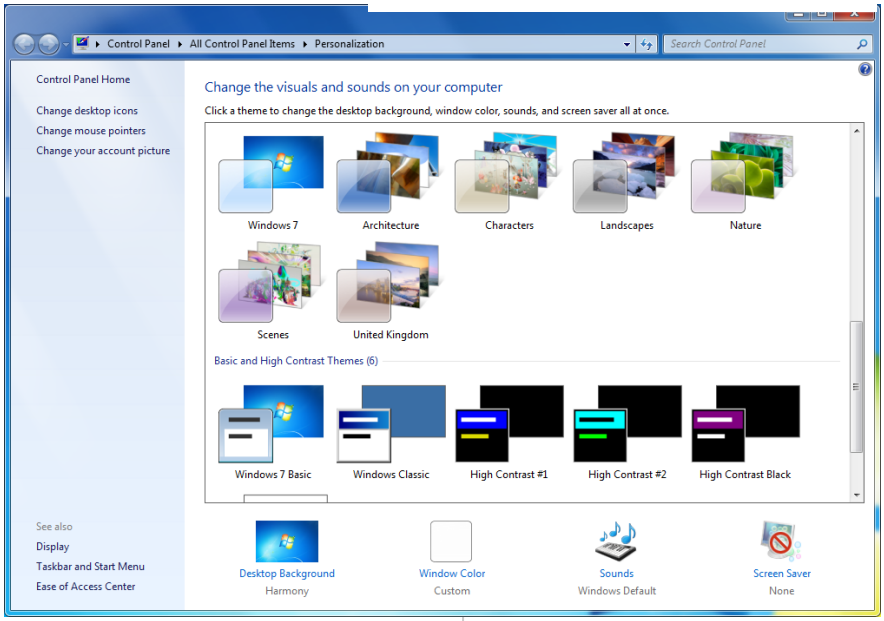
Along the bottom you have options to change the **Desktop Background**, **Window Colour**, **Sounds** and **Screen Saver**. Then in the left hand pane are additional options.

THEMES

Windows 7 supports theme packs. These will display in the main section of the *personalisation* screen.

Some of these have more than one wallpaper. Selecting one will automatically change your desktop to that theme. You can them customise how you want it displayed by choosing the *Desktop Background* option from the bottom of the *Personalisation* window. Here you can select what images are displayed as wallpaper, how they appear on screen and how often the image changes.





QUICK TIP

Get more themes for Windows 7

In the *My Themes* section of the *Personalisation* window you will get an option to **Get more themes online**.

This will take you to a Microsoft website where you can download lots more theme packs for your computer.

QUICK TIP

Better access to the Accessibility options

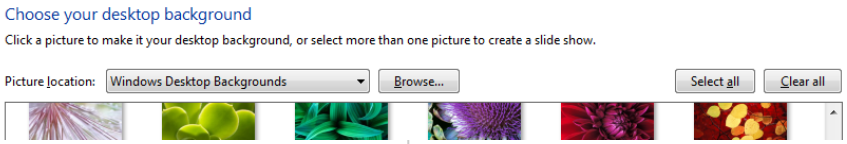
All of Windows 7's accessibility features are available quickly by typing *access* into the search box in the Start Menu.

Here there are wizards and guides to help make your experience using Windows 7 more pleasant and enjoyable.

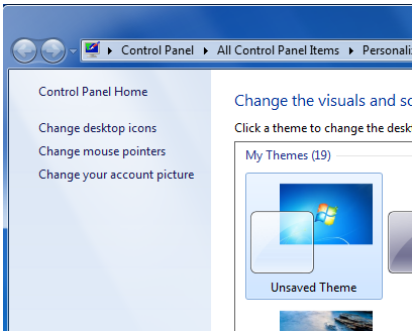
CREATE A CUSTOM THEME

You can create your own themes in Windows 7 to share with friends and family. Perhaps a "Malaga photos" theme or one for "Classic cars".

This is simple and straightforward. You first select the picture or pictures you want as your wallpaper. Opening *Desktop Background* from the *Personalisation* window will allow you to browse your computer for images or select from a series of predefined locations.



When you have done this you may want to modify your colour, mouse and sound schemes, again easily Done from the *Personalisation* home screen.

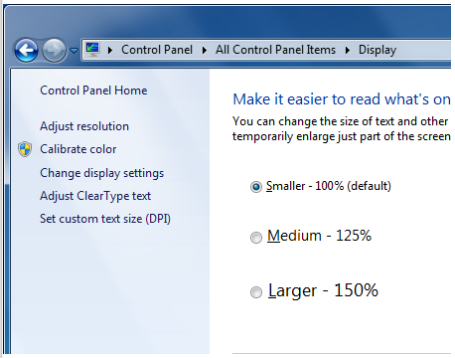


Your new theme will show up in the *My Themes* section of the personalisation screen as **Unsaved Theme**. At the bottom of the *My Themes* section is a link to *Save theme*. This will allow you to save the currently selected theme to your hard drive for sharing and emailing.

MAKING TEXT EASIER TO READ

Windows 7 has greatly improved the accessibility options available to users. In the *Personalisation* window you will see a *display* option near the bottom of the left hand blue pane.

Clicking this will bring up the options to *Make it easier to read what's on your screen*.



Here you can change the default size of all text and icons by up to 150%.

This should be done instead of reducing the resolution of your screen. If you are using a flat-panel monitor reducing the resolution will make your screen appear fuzzy and difficult to read.

There are additional accessibility options here including tweaking the *Clear Type* system used to make text clearer. This is a simple wizard that presents various texts asking you which is clearer and easier to read.

ADDING WALLPAPERS TO WINDOWS

In the *Personalisation* window you can add wallpapers from any location on your hard disk. But you can also make sure these are always available to Windows, just in case they're moved for example.

In *Computer*, open the disk containing your Windows 7 Installation. This will probably be called "local disk" and can be identified by the Windows logo on the picture of the hard disk.

Navigate to... **Windows** > **Web** > **Wallpaper** and here you can copy images, or folders containing images that will then appear by default in the *Personalisation* view.

Hamad Darwish was one of the official photographers for the Windows Vista wallpapers. He has some lovely wallpaper collections on his website at...

www.hamaddarwish.com/winvista.html

DISPLAYING HIDDEN THEMES

By default Windows 7 will show you a theme based on your Geographic location or country however all the world's editions of Windows 7 come on the same DVD so you can easily unlock the additional countries.

Open the drive that Windows 7 is installed on from Within *Computer* and navigate to the following folder **Windows** > **Winsxs**. Once there in the search box in the top right of that window search for ***.theme**.

This will bring up a list of all the available themes, many of which will already be installed. However there will be other geographical theme packs here that you can install simply by *double clicking* them.

WHERE ARE THE ULTIMATE EXTRAS?

You might remember that Windows Vista Ultimate came with *ultimate extras*. This was extra software available through Windows Update that includes additional games and the *Dreamscene* feature that let you have animated and video wallpapers.

Ultimate extras has been dropped in Windows 7. Though Stardock who released a, frankly, far better version of Dreamscene called *Deskscapes* may also release a version for Windows 7. Their website can be found at...

www.stardock.com

QUICK TIP

RSS powered wallpapers

More advanced users might want a random wallpaper scheme powered by the RSS web publishing standard.

This can be quite complex but blogger Long Zheng wrote an excellent article about how to get started with this feature.

www.istartedsomething.com/20090126/rss-powered-windows-7-desktop-slideshows/

There are downsides to using this system which is why I've not written about it in the main body of the book, but some advanced users and photo enthusiasts might find it interesting.

QUICK TIP

Modify your System Properties

Everything in this section is access from the *System properties* window. This is accessed by opening the *Control Panel* and selecting *System and Security* followed by *System* and clicking *Advanced system settings* in the blue panel on the left of the Window that appears.

WINDOWS 7 OPTIMUM CONFIGURATION

When you first install Windows 7 there are some settings you can change in the operating system to help it work at its very best.

Everything in this section is access from the *System properties* window. This is accessed by opening the *Control Panel* and selecting *System and Security* followed by *System* and clicking *Advanced system settings* in the blue panel on the left of the Window that appears.

VIRTUAL MEMORY

You have two types of storage in your computer, your hard disk which is a physical spinning disk on which Windows files and your documents are stored and your memory.

When windows and programs load, they are copied into memory, which consists of silicon chips that can pass files and information in and out much faster than a spinning hard disk.

The more memory you have installed in your computer the more programs it can have in it and the faster Windows will run. The biggest difference will be the jump from 1Gb of memory to 2Gb or 3Gb. After this point, unless you are working with enormous photographs or other files, the difference in speed in much less pronounced.

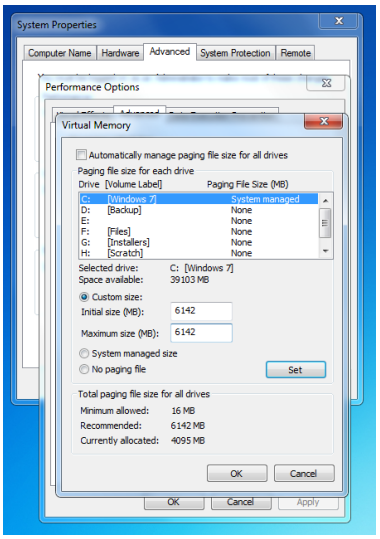
When this memory is full your PC will use a part of your hard disk as substitute, or *virtual memory*. This is a file on your hard disk that will obviously be far slower to read and write data than the physical memory itself.

By default, every version of Windows maintains this virtual memory in a very inefficient way, in that it grows and shrinks the size of the file of your hard disk as required.

This creates a situation where your other files can become fragmented (split) across the hard disk because the swap file isn't leaving enough space for them to be saved whole in the place they should be.

To fix this, you can change the virtual memory file to be a fixed size. Open the *Control Panel* and selecting *System and Security* followed by *System* and clicking *Advanced system settings* in the blue panel on the left of the Window that appears.

By default the pop-up window you now see will have the **Advanced** tab highlighted. In the **Performance** section click the *Settings* button then click the *Advanced* tab in the next window that appears.



In the **Virtual Memory** section press the *Change* button. A third window will appear. You should untick the **Automatically manage paging file size for all drives** and select *Custom size*. At the bottom of this window will be the minimum and recommended sizes for your virtual memory. Type the *Recommended* figure into both the *Initial size (MB)* and *Maximum size (MB)* boxes and press the *Set* button. Making sure both these numbers are the same will maintain a constant size for the virtual memory file.

VISUAL EFFECTS

In the same window under the *Visual Effects* tab you can choose some of the custom effects you see on your Windows desktop.

A common one to change, because many people, including myself, think it gives the Windows desktop a cleaner look is to untick the option to *Show shadows under windows*.

There are a great many options here you can play with without upsetting Windows.

STARTUP AND RECOVERY

For people running Windows 7 in a dual-boot configuration, where you have more than one operating system installed on your PC, you can change the boot order and boot menu time in the *Startup and Recovery* section of the *System Properties* window.

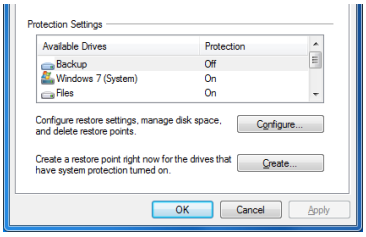
COMPUTER NAME

If you have only a single PC in your home then changing its name won't benefit you. However if you have several on a home network it can help to identify which computer, for instance, you are sharing files or a printer with.

You are asked to name your computer when you install Windows 7, but it can be checked and changed at any time through the *Computer name* tab in the *System Properties* window.

SYSTEM PROTECTION

Windows 7 includes a clever system that quietly backs up older copies of your files as you work on them so that if you need restore an earlier version of that file you can. By default this feature only pro-



tects your Windows drive or partition. If you have moved your files away from here (as described in Part 3 : *Exploring*) you will need to turn the feature on for that drive. You can do this under the *System protection* tab in the *System properties* window.

Set it to only restore previous versions of files. You can also specify how much disk space is reserved for this.

QUICK TIP

Switch on system protection

If you have moved your documents, pictures and music away from the hard disk or partition Windows 7 is stored on, you will need to turn on System Protection for the new location for those files.

This is a facility that can allow you to recover a previous version of a file if you need to.

In the Start Menu search box type *Advanced* settings and open *View advanced system settings* when it appears in the search results. Click on the *System Protection* tab and turn on system protection for the drive you have stored your files on.

QUICK TIP

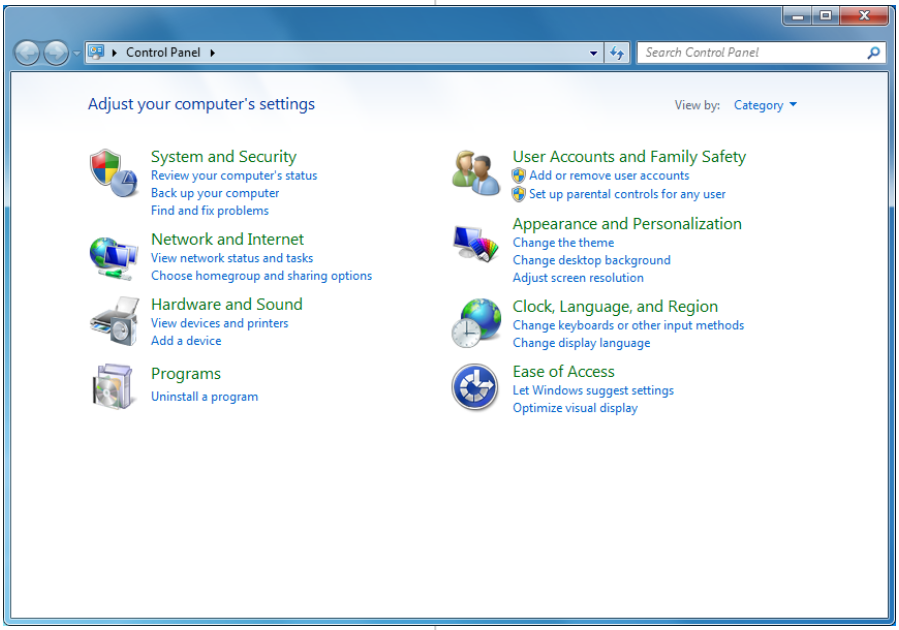
Devices and Printers

In addition to the *Device* Manager in the Control *Panel* the Start Menu now contains an item called *Devices and Printers* which is an easier way to see the status or devices and modify their settings.

THE CONTROL PANEL

The *Control panel*, as with previous versions of windows is your centralised place for all your system settings.

By default you will see the *category view* where everything is organised into helpful groups. In the top right of the control panel is a *View by* option that you can also change to large or small icons. This will allow you to easily view all the *Control panel* items should you wish to.



The *Control Panel* search box is also much smarter than in Windows Vista. A search for **Disk** for instance will immediately bring up a variety of options including *Create a password reset disk, defragment your hard drive* and *free up disk space by deleting unnecessary files*.

In this section I'll talk you through some useful changes you can make to *Control panel* items.

AUTOPLAY

If you are annoyed by the autoplay window that appears when you put a CD, DVD or USB memory stick into your PC. Here is where you can change the options for what happens by default. You can turn these prompts off by selecting *Take no action*.

DATE AND TIME

When you click on the clock in the bottom right of the taskbar a full size clock and calendar will appear. The *Date and Time* controls in the *Control panel* allow you to add a second clock to this window and change how and when your PC synchronises its clock with the internet.

This is also where you would change the time and date on your PC if they are incorrect.

DEFAULT PROGRAMS

This *Control panel* item does much more than its name suggests. Here you can choose the default programs for certain actions, such as playing a DVD, but you can change the file association options. This means you can select what files are opened by what programs. For instance you can change all your music and video files to open with the Zune Player (if you have installed it) instead of Windows media Player.

FOLDER OPTIONS

The *Folder options* section in the *Control panel* has several options that you might find helpful.

NAVIGATION PANE

If you are missing the old tree-folder view from previous versions of Windows fear not, you can restore it here. This restores this functionality to the *Navigation pane* in *Explorer* windows.

ADVANCED FOLDER VIEWS

There are some options under the *View* tab you might like to change.

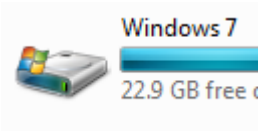
⇒ *Hide empty drives on your computer*
⇒ *Hide extensions for known file types*
⇒ *Show encrypted or compressed files in colour*

HIDE DRIVE LETTERS

In the *Advanced settings* under the *View* menu you can also untick *Show drive letters*.

There is no real reason why we still need to be looking at drives with the C: or D: moniker attached to them. This can make navigating through your drives look cleaner.

You can right click on any



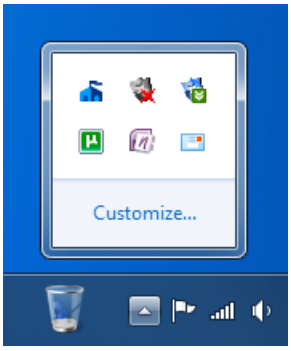
disk and select *Rename* if it is just called **Local disk**.

SEARCH OPTIONS

In the *Search* panel there are options such as *use natural language search* that you can switch on.

NOTIFICATION AREA ICONS

Also available by pressing *customise* when opening the hidden icons on the taskbar you can change what icons will notify you of events and what can appear all the time. It can be useful to set your anti-virus software to always appear.



QUICK TIP

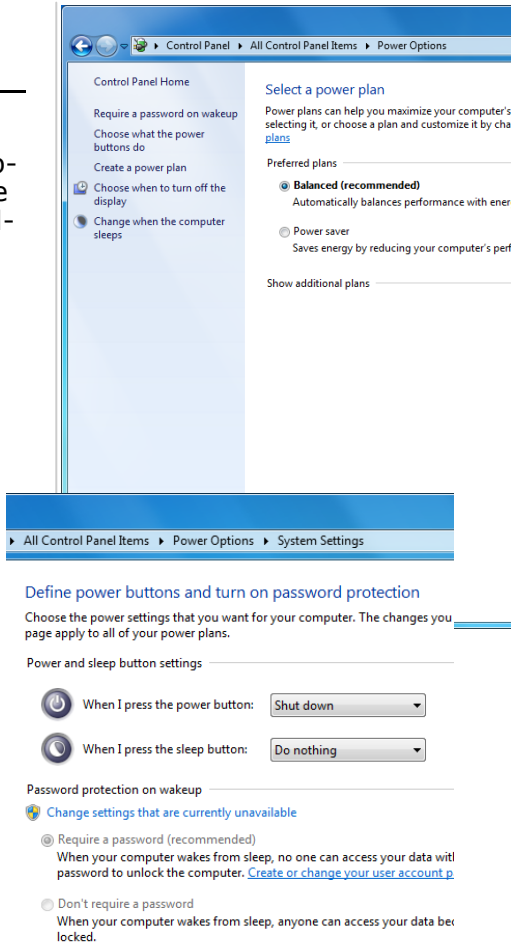
File association by drag and drop

If you have a program open or pinned to the taskbar you can drag and drop any file onto the icon to associate that file type with that program.

From then on, any files of that type will open with the program you've selected.

POWER OPTIONS

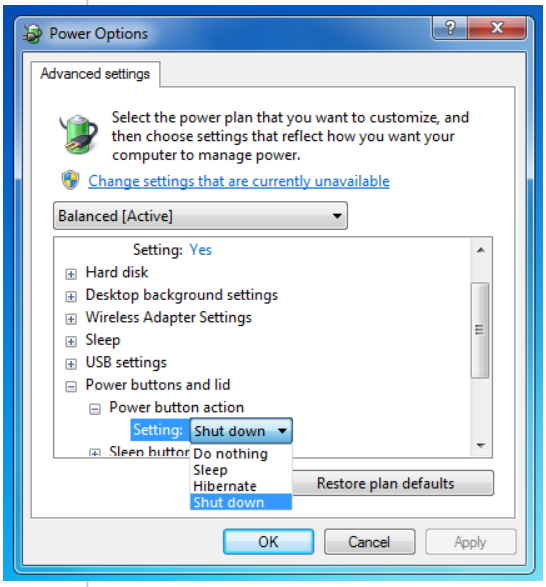
Especially useful if you are running Windows 7 on a laptop, the power options have been simplified and rationalised. There are now two standard power plans for Windows, **Balanced** and **Power Saver**. Both plans can be modified by clicking the *Change Plan Settings* link to their right.



In the left hand pane of this window is a link to create your own power plan. This includes, as with customising the others, choosing when to turn off the display and when the computer sleeps.

Also in this pane is an option to choose what the power buttons do. Here you can redefine the actions of the power and sleep buttons, and change whether Windows takes you to the log-in screen or straight to the desktop when it resumes from sleep or hibernation.

Clicking on *Choose when to turn off the display* or *Change when the computer sleeps* and then, in when the display changes, clicking *Choose advanced power settings* will open a window where you have control over every aspect of the power management in Windows. This is an incredibly powerful feature and can be used to great effect to minimise power consumption, especially on a laptop. I would recommend this feature is used by experienced users only.



QUICK TIP

The Phantom Sleeper

In rare instances, some self-build PCs can automatically send themselves to sleep after only a second or two of inactivity.

If this happens to your PC keep moving the mouse and pressing the CTRL or ALT key on your keyboard until you can get into the *Power Options* from the *Control Panel*.

Change the **When I press the Sleep button** action to *Do nothing*. From the moment you press the *Apply* button the problem will vanish.

REGION AND LANGUAGE OPTIONS

This control panel applet gives you control over your location in the world, your display formats for times, dates and numbers and your keyboard lay-out.

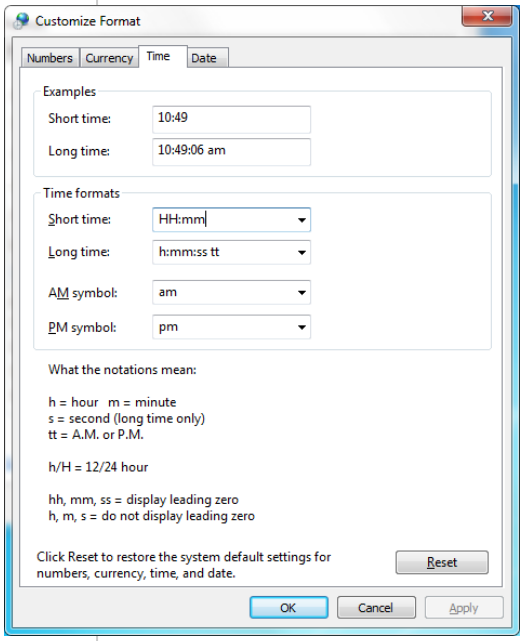
By default, Windows 7 doesn't have the best settings for the display of time and date. Clicking the *Additional settings* button in the bottom right of the Format tab in this Window will allow you to change these.

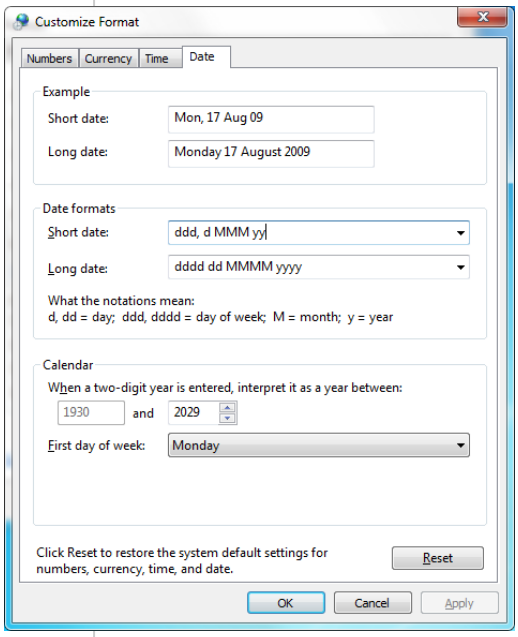
For instance, you can change your default currency symbol, how thousands are separated and how negative numbers are displayed.

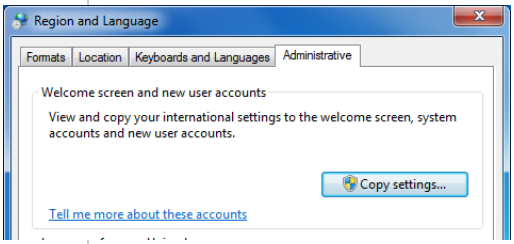
Under the *Time* tab I tend to change **Long Time** to *h:mm:ss tt* to show hours where there's just a single digit if it's less than 10 and show the seconds. I also change the **AM** and **PM** symbols to lower case.

I also find under the *Date* tab it's useful to change the **Long date** format to *dddd dd MMMM yyyy* which will include the day name (Monday etc.) when it's displayed.

Under the *Location* tab you can change where you are in the world if you are working away and under the *Administrative* tab you can automatically copy your custom settings to any new user accounts you create on your PC.







QUICK TIP

Modify your time and date settings

Modifying the time and date settings by opening the *Control Panel,* clicking on *Clock, Language and Region* and then *Change the date, time or number format* can make Windows much easier to understand.

See the information (left) on the formats I recommend.

QUICK TIP

Display as Menu

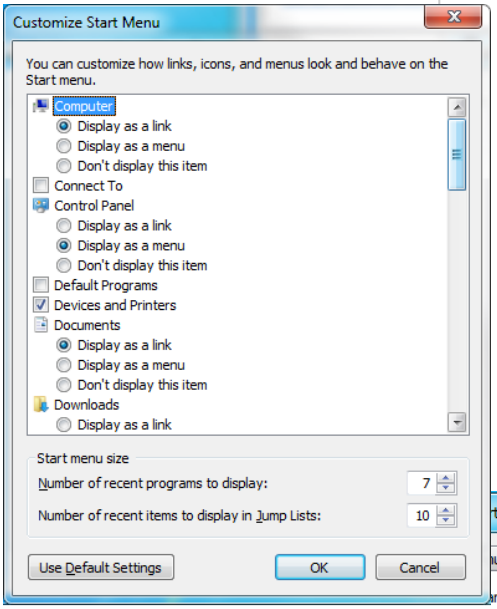
It can be a time saver changing some Start Menu items such as *Control Panel* from *Display as link* to *Display as menu*. This means all the Control Panel items will pop out from the side of the Start Menu when you click on *Control Panel*. This can also be done with other items.

To access this, Right click on the Windows orb [Start button] and select *Properties* from the menu that appears. Then under the *Start Menu* tab click the *Customise* button.

CONFIGURING THE START MENU AND JUMPLISTS

Right clicking on the *Windows [Start] Button* and selecting *Properties* will bring up the options to customise the Start Menu and Taskbar Jumplists.

Under the *Start Menu* tab, pressing the *Customise* button will bring up a series of options allowing you to define exactly what appears in your Start Menu.



At the bottom of this window are the options for choosing the number of recent programs that will appear in the Start Menu, and also the number of recent items that will appear un Jumplists.

PUTTING NAMES BACK ON THE TASKBAR

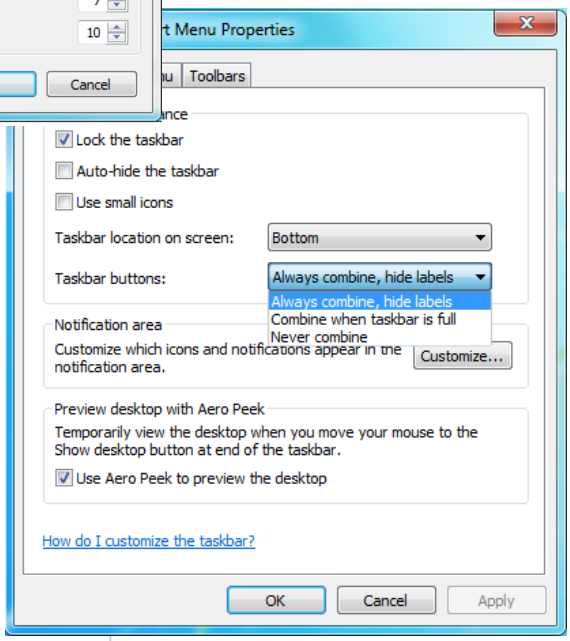
By default, the new Taskbar only shows you icons for programs, the names from previous versions of Windows having been removed. You can restore these names however easily.

Right click anywhere in a blank space on the Taskbar and select *Properties* from the menu.

In the options panel that appears the *Taskbar buttons* section has a drop down menu of several options. *Always Combine, hide labels* which is the default, *Combine when Taskbar is full* and *Never Combine*.

These latter two options will restore the text for all running programs.

There are also other options in this window such as moving the taskbar around your screen.



THE RECYCLE BIN

By default the only icon on the Windows 7 desktop is the recycle bin. It's helpfully labelled **Recycle Bin** which you don't need. You can remove this name by right clicking on it and selecting *Rename*. You can just put a single [space] instead of a name and you will now only see the icon.

PINNING THE RECYCLE BIN TO THE TASKBAR

It is possible to pin the Recycle Bin to the Taskbar, which Windows 7 won't allow you to do.

Open an explorer window and in the navigation pane type…

%userprofile%\AppData\Roaming\Microsoft\Internet Explorer

Note the Space between Internet and Explorer. You'll probably need to change the view options so if you do, in the same explorer window press the *Alt* button on your keyboard and in the *View* menu temporarily change the settings for *Show hidden files…* and *Hide Protected Operating System files*.

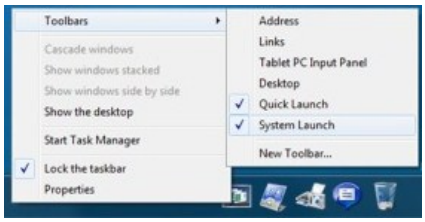
In this folder create yourself a new folder that I've called *System Launch*.

Now click anywhere in a blank space on the taskbar and select *Toolbars* and *New Toolbar*. In the window that appears navigate to…

%userprofile%\AppData\Roaming\Microsoft\Internet Explorer

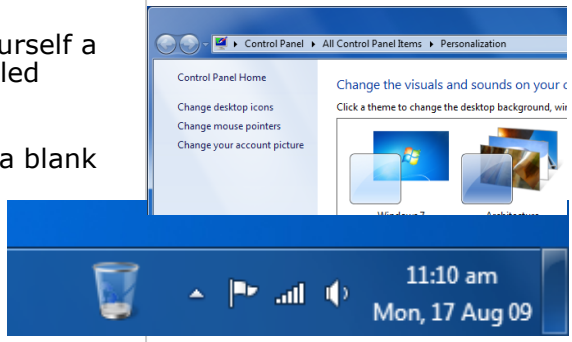
…if it doesn't automatically go there. Select your *System Launch* folder and press the *Select Folder* button.

Once this new toolbar appears you can unlock the taskbar and drag it to where you want and drag and drop any icons you want in it. You can also right click in it and untick the options *Show Text* and *Show Title* and change the icon size from small to large. Note these options won't appear if the taskbar



is locked.

You will also now need to remove the Recycle bin icon from the desktop. Right click anywhere in blank desktop space and select *Personalise* from the menu. In the top right of the window that appears click *Change desktop icons*. Here you can untick the Recycle Bin, preventing it



QUICK TIP

Pin the Recycle Bin to the Taskbar

Full instructions can be found (left) but pinning the recycle bin to the Taskbar cleans up your desktop and makes it easy to access the Recycle Bin at all times.

This is a little technical but any user, no matter how inexperienced, can do this. It's a real time-saver.

QUICK TIP

Sticky Notes

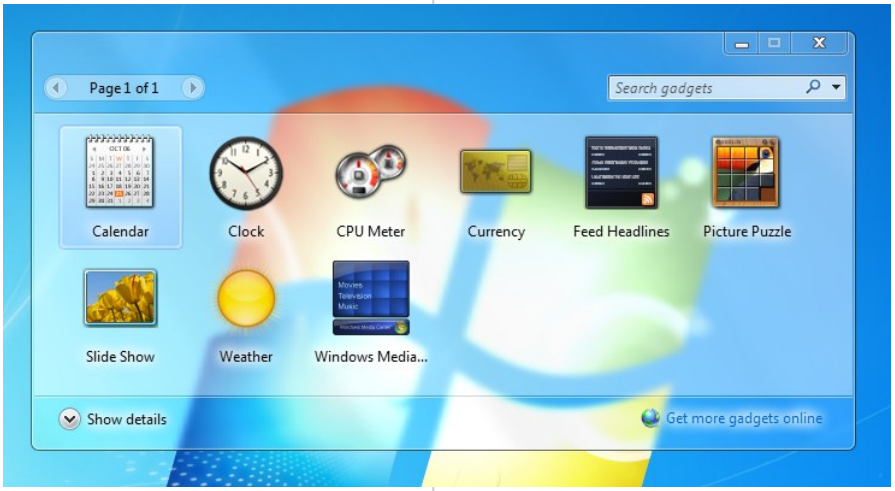
The sticky notes have been removed from the Gadgets panel from Windows Vista but they're still there.

They now exist as a program in the Start Menu, but if you still want them as gadgets, and without having an icon permanently on your Taskbar, you can re-download the gadget by clicking *Get more gadgets online* in the Gadgets window and search for *Sticky notes*.

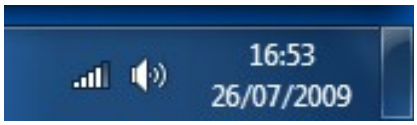
GADGETS

The *Sidebar* from Windows Vista has been dropped but he gadgets remain.

Right clicking anywhere in a blank space on your desktop and selecting *Gadgets* from the menu that appears, or selecting *Desktop Gadgets* from the Start Menu will bring up the gadgets panel. Windows 7 comes pre-loaded with a series of gadgets but a great many more are available online. To get more gadgets click on the *Get more gadgets online* link in the bottom right of this window.



Gadgets can be placed anywhere on your desktop and can be viewed at any time using *Aero Peek*, rolling your mouse over the button on the far right of the Taskbar.



INSTALLING MISSING DRIVERS

It's rare that Windows will install drivers for every single piece of hardware on your machine when you install it without missing one or two.

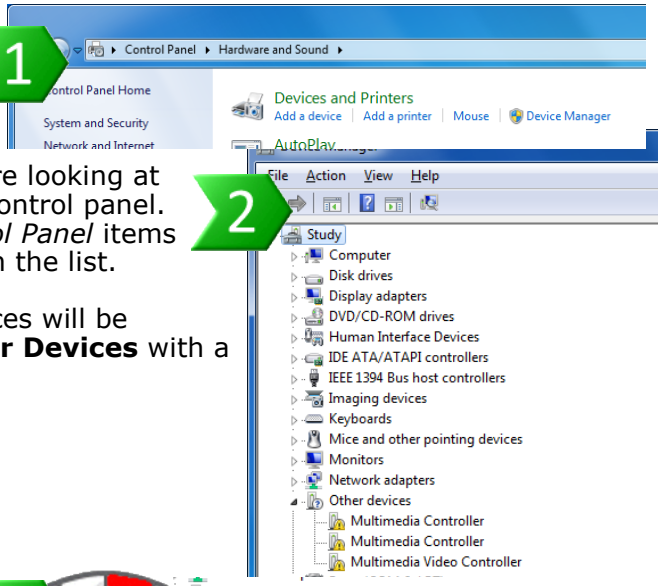
You can install missing drivers by accessing *Device Manager* from the *Control Panel*. Here you will see any hardware the drivers has not been installed listed under **Other devices**.

You can right click on any of these and get Windows 7 to automatically find the correct driver, or point it manually to the location of the correct driver for your hardware.

For more information see the **Step-by-Step** guide on the next page.

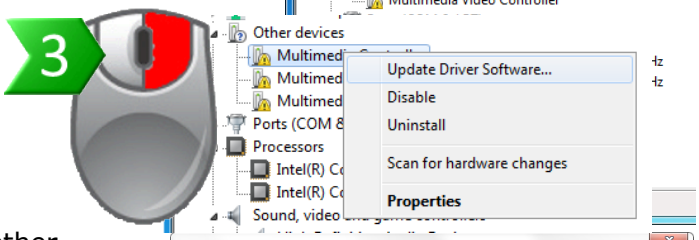
INSTALLING DEVICE DRIVERS

1 From the *Control Panel* open *Hardware and Sound* then in the *Devices and* Printers section open *Device Manager* if you are looking at the standard 'category view' control panel. If you are looking at all *Control Panel* items you will see *Device Manager* in the list.



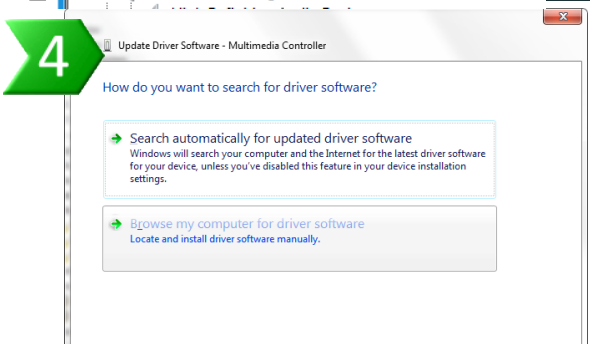
2 Any unidentified devices will be displayed under **Other Devices** with a small yellow icon.

3 Right click on the item you want to install the driver for and select *Update driver software*.



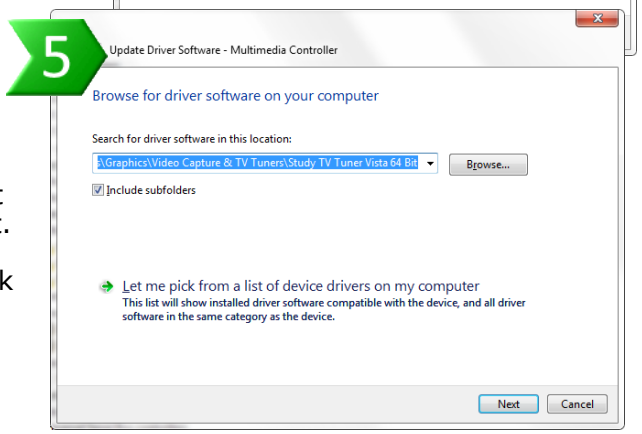
4 You can choose whether to get Windows to search for compatible drivers online, or to install from the driver disk that came with your hardware.

If Windows did not find the driver when it was installing, the second option might be better.

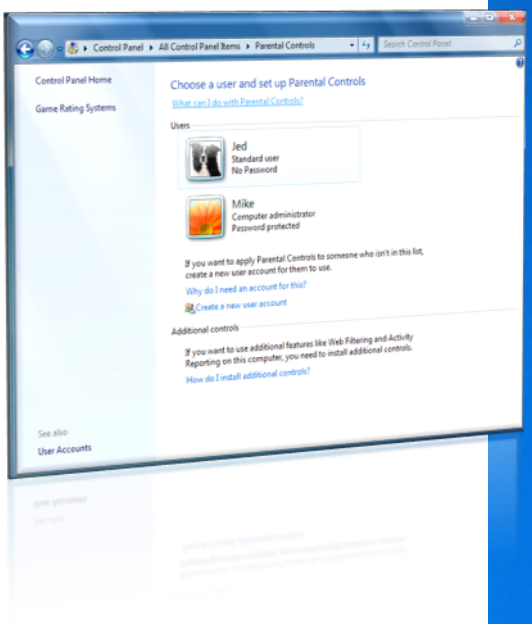


5 Point Windows at the next screen to the location of your drivers on your CD, DVD, SUB pen drive or hard disk.

Windows 7 is extremely good at installing drivers form this point. If the drivers are incompatible Windows will inform you and ask for another driver location.



Part 9



Playing

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Hiding games

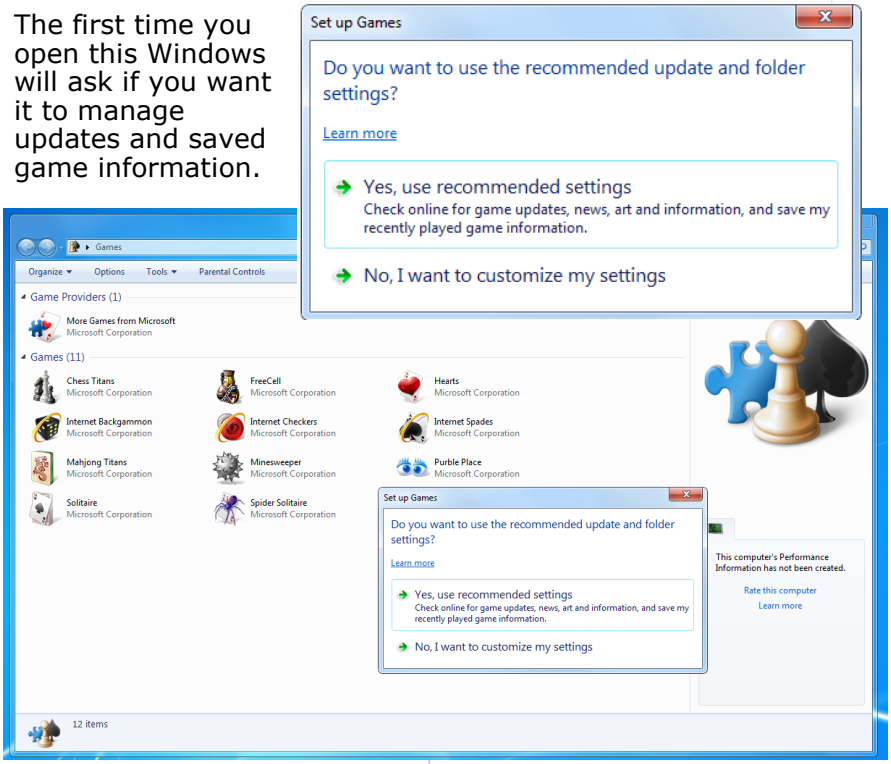
Not everybody will want to see all the games available in Windows.

You can hide any game in Windows 7's *Games Explorer* window by right-clicking on it and selecting *Hide this game*.

GAMES

First introduced with Windows Vista, Windows 7 has a *Games* panel available form the Start Menu.

The first time you open this Windows will ask if you want it to manage updates and saved game information.



This is useful because games carrying the **Games for Windows** logo and many others can now have updates and patches delivered directly to your PC, and automatically installed, through this system. This takes a lot of the worry out of gaming, particularly with some of the more complex games today.

The number of games available to you varies depending on your version of Windows.

Clicking on a game will bring up information about it's rating and suitability for younger players.

MY GAME WON'T RUN

Some games are blocked by a feature called *Data Execution Prevention*. This is designed to stop viruses and trojans but can also affect some games.

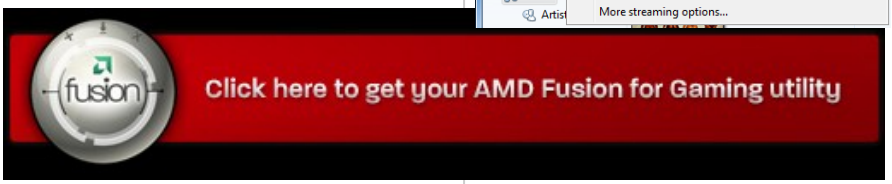
In the *Control Panel* open *System*, then *Advanced system settings*. In the options window that appears click on the *Settings* button in the *Performance* section of the *Advanced* tab.

In the window that appears click on the *Data Execution Prevention* tab. Here you can add you game to the exceptions list by pressing the *Add* button and navigating to, and selecting the game on your hard disk.

GAMING MODE?

One of the biggest criticisms levelled against Windows Vista was that there was so much running in the background that doing anything felt sluggish, this was doubly so for intensive processes like gaming.

Windows still doesn't have a 'gaming mode' however Windows 7 is much fitter and considerably faster than Vista.



Owners of ATI graphics cards can download a utility from their website called **AMD Fusion**.

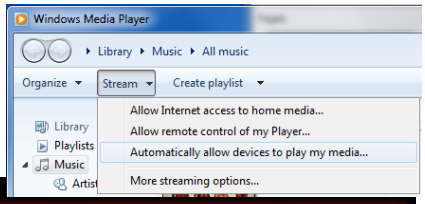
AMD describe the utility as "It works by temporarily shutting down background processes and intensifying processor performance with AMD Boost. That means you can keep all the features of Microsoft Windows ready for when you need them, but turn them off when you are ready to get down to serious business – gaming"

The software will provide better results on a PC that also has an AMD processor.

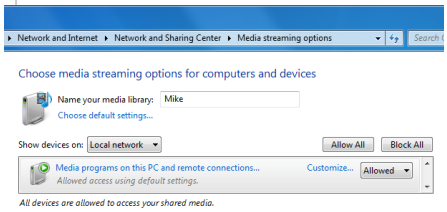
Several people have also written scripts in the new *PowerShell* scripting language. You can search for these on-line but these should only be used by technical Windows users.

SHARE MUSIC AND VIDEO

Available in the *Network and Sharing Centre* from the *Control Panel* and also from *Windows Media Player* are the media streaming options.

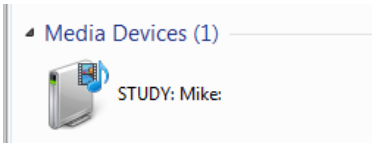


These allow you to share music and video wirelessly, if you have a wireless home network, with other computers and devices in your home, such as some internet radios.



There is also an option to securely share your music with other PCs over the internet, so you can have access to your music when away from home.

These shares show up as **Media Devices** in the *Network* section of Explorer windows.



QUICK TIP

Boost performance for games

Some third-party programs exist for boosting game performance during gaming.

One such example is **Game Booster** from iobit software. You can download it from...

www.iobit.com/gamebooster.html

QUICK TIP

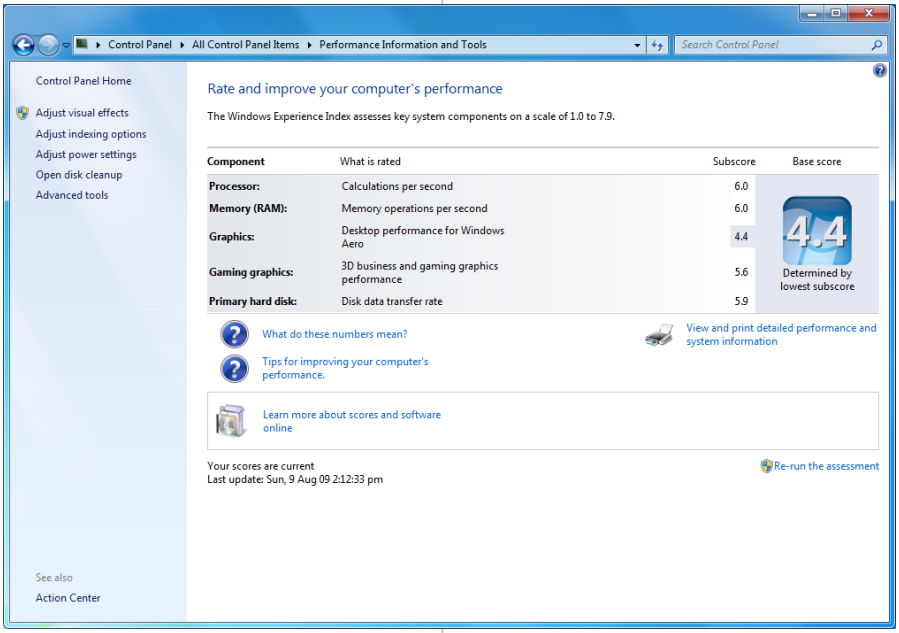
Your PC as a TV

As PC screens become bigger, and more all-in-one machines are sold, it's now possible to use Windows Media Centre as a viable alternative to having a separate TV in your living room or bedroom.

You can buy Media Centre remote controls from your local electronics or PC store.

WINDOWS EXPERIENCE INDEX

Your *Windows Experience Index*, accessed through *Performance Information and Tools* form the *Control Panel*, is a score from 1.0 to 7.9 that some games use to show the minimum specification needed for it to run.



Your score is determined by it's lowest component, in the example here this being the graphics card.

WINDOWS MEDIA CENTRE

HP PR UL

In every edition of Windows 7 except *Starter* is Windows Media Centre, Microsoft's entertainment centre designed to be used on TV screens via a remote control.

When you first start *Windows Media Centre* you will be asked to set up your libraries (where your music, video and pictures are stored) and to set up your TV signal if your PC has a TV tuner card installed.

Windows Media Centre has been improved since Windows Vista and is now more sensibly laid out and easier to use.

If you are using *Windows Media Centre* as your main entertainment centre on your TV, you might want to go into *Tasks*, then *Settings*, *General*, *Startup and Window Behaviour* and tick *Start Media Centre when Windows Starts* to get it to start up automatically.

SETTING UP A HOMEGROUP

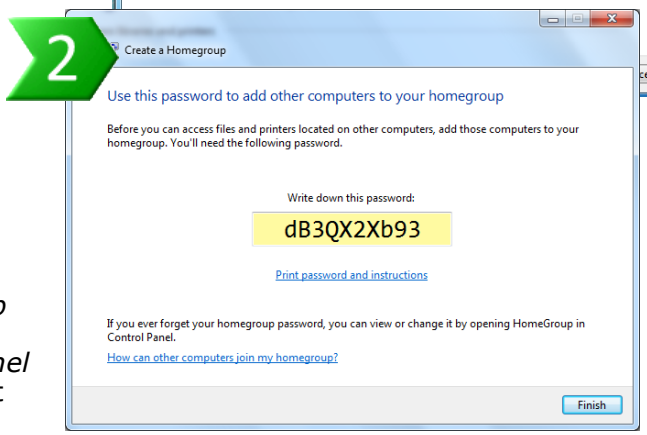
Homegroups are new to Windows 7 and they're an excellent way to share Music, Pictures, Photos, Videos and Printers with other PCs running Windows 7 on your home network. This feature, as of the time of writing, will only work on PCs running Windows 7, though Microsoft may decide to back port it to Windows Vista and Windows XP later via a service pack.

1 To create a *Homegroup* open *Network and Internet* from the *Control Panel and then click on* Homegroup.

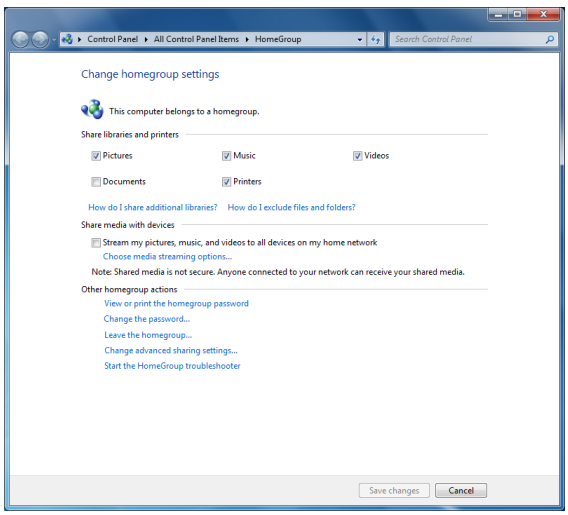
Alternatively you can type *Homegroup* into the search box in the Start Menu.

Select the file types you want shared from the current computer with the *Homegroup* and press *Next*.

2 Your *Homegroup* will be automatically created and you will be given a password to type into computers that want to join the *Homegroup*.



3 You can change your *Homegroup* settings at any time by selecting *Homegroup* from the *Control Panel* or by searching for it in the Start menu search box.



CONNECTING TO A HOMEGROUP

1 On another PC you want to connect to the *Homegroup* open *Homegroup* in the ways described above. The system will show all available *Homegroups* (remember the host PC must be switched on). You will be asked for the password and then what files and documents you want shared from the new PC.

QUICK TIP

Keep yourself and your family safe

Parental controls themselves aren't enough to keep you and your PC safe.

Check out the latest safety advice from your internet service provider or from a website like the excellent

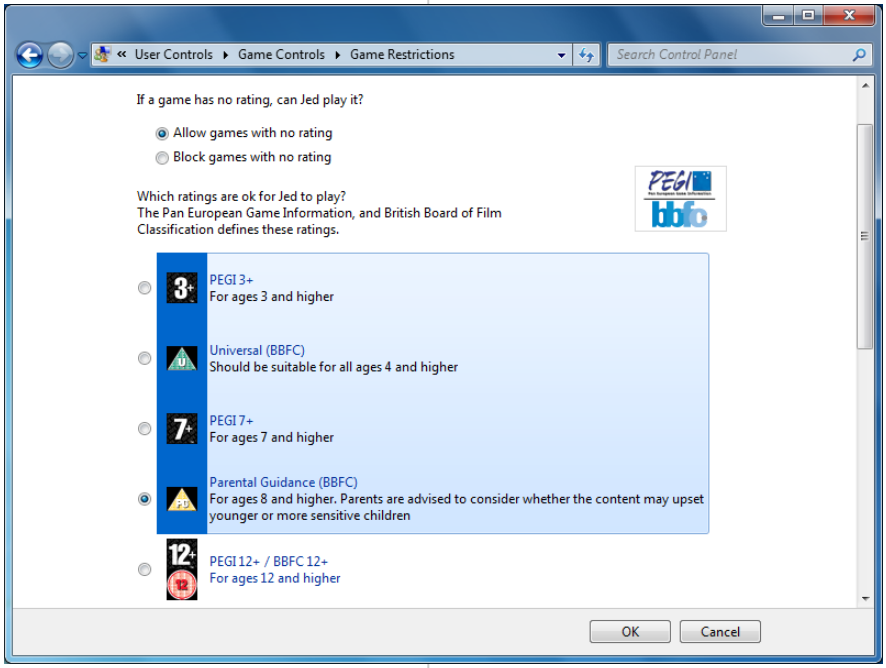
www.getsafeonline.org

PARENTAL CONTROLS

Windows 7 has in-built parental controls that are really quite powerful and useful. There's no real need any more to buy a third-party application for this as the only missing component is available as a free download from the Microsoft website.

Full instructions on how to set up the parental controls are on the **Step-by-Step** guide on next page, but it's very easy to do.

You can select the maximum game rating children are allowed to play, and you can select from a large number of rating systems. If a game has no official rating, you also have the option to block it automatically.



Usefully, you can also set the times during which people are allowed to log-in and use the PC.

LIVE FAMILY SAFETY

Part of the Windows Live Suite available to download at...

Download.live.com

Is **Family Safety**, this is the final piece of the puzzle in Windows 7's parental controls.

Family safety allows you to filter and monitor the websites children are visiting through whitelists and blacklists that are automatically maintained and updated by Microsoft.

You have the option of allowing of blocking specific websites yourself if you want as well.

The system requires users to log-in using a Microsoft Live ID [formerly known as a Microsoft Passport] which, if you have a Hotmail or MSN email account, you will already have. Another piece of software in the Live suite however will allow for automatic log-in.

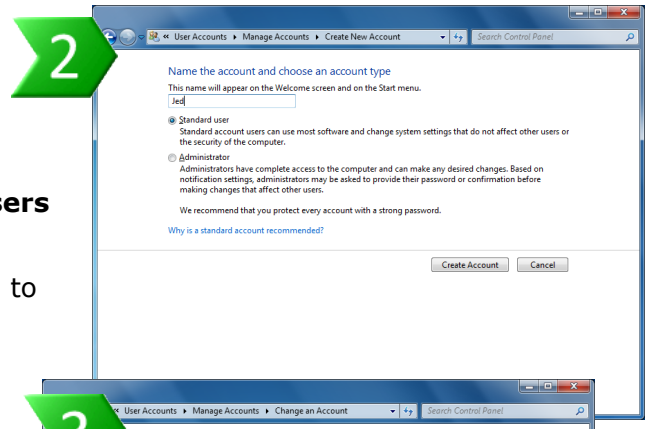
SETTING UP PARENTAL CONTROLS

1 The first step is to create an account for the child / person you want to limit access to.

Click your logon picture at the top right of the Start Menu and in the window that appears click the *Manage another account* link.

You will need to have a password on your [Administrator] account to set these up.

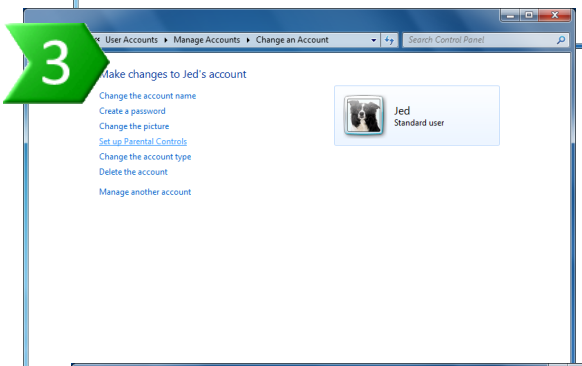
2 You now need to create a new user account for the person if you have not done so already. This will need repeating for each person you want set up in *parental controls*.



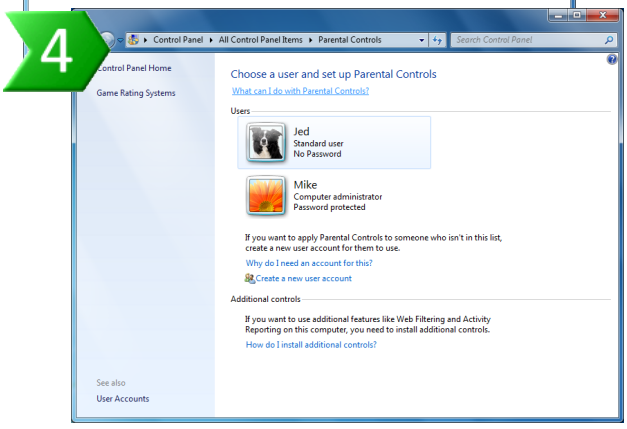
Make sure you set them as **Standard Users** and NOT Administrators.

If you have already set up accounts, skip to Step 3.

3 If you have already set up an account, or after you have done so, click on the relevant account and then click the link *Set up Parental Controls*.

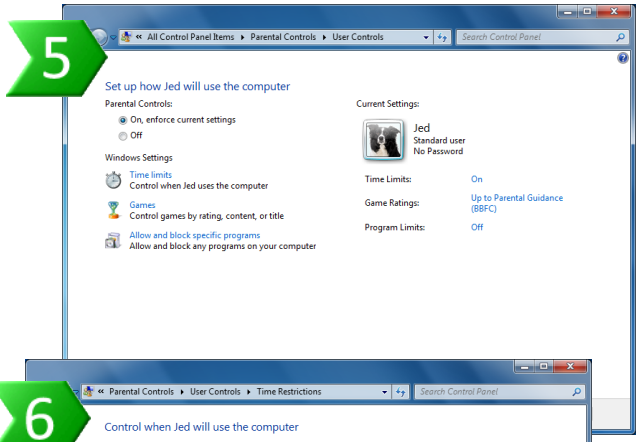


4 Windows will now ask for what user you want to set up Parental Controls. Select the appropriate user.



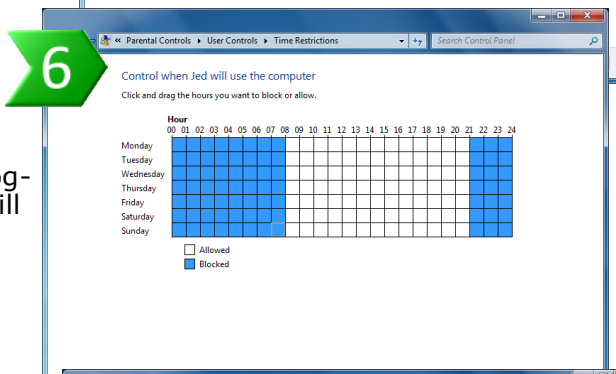
SETTING UP PARENTAL CONTROLS

5 You will now find yourself in the main controls window. Here you can select what controls you want to set up or modify.

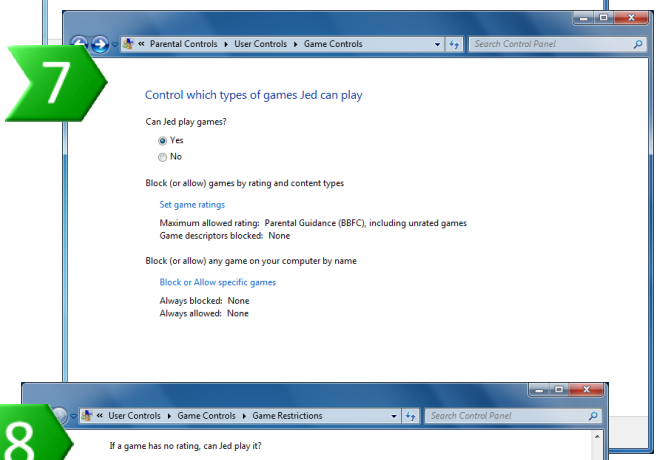


6 In the *time restrictions* options, you can click and drag blocks to select when the user will be allowed to use the PC.

The parental controls will not let them log-in or use it outside of these times and will warn them when the end time is close.



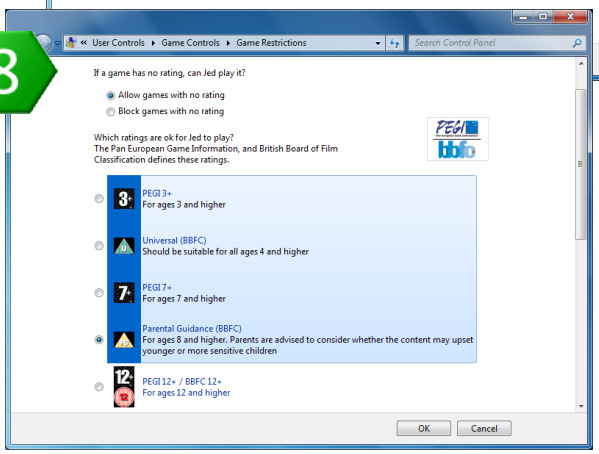
7 You can also choose if the user is allowed to play games and even, if you want, block specific games from being played.



8 The final screen allows you to choose a ratings system you want to use. Here, as this PC was set up in the UK, Windows has automatically chosen the BBFC rating system.

If you are unsure which to use, have a look at a box for one of your child's games.

You can select the maximum age they are allowed to play to. This integrates with the *Games Explorer* from the Start Menu.



VIDEO, DVD AND BLU-RAY SUPPORT

Windows 7 comes pre-configured with a wide range of popular video codecs. This means the videos you've recorded from your camcorder in DivX or XviD formats will play straight away without any hassle. This is a huge improvement over previous versions of Windows where finding the right codec pack could be fiddly.

Windows 7 will also natively play DVDs and Blu-Ray movies so if your PC or laptop comes fitted by a Blu-Ray player, you can watch high definition movies at home or on the go.

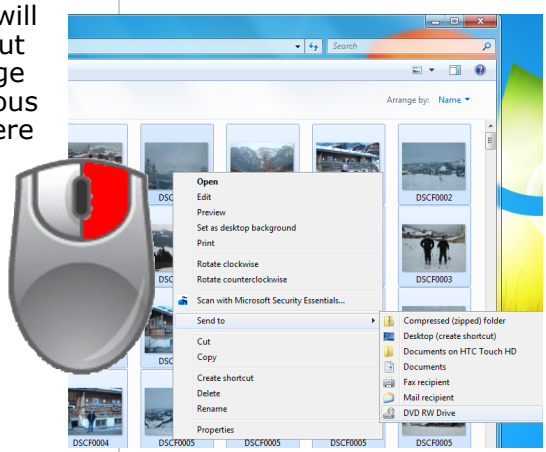
Because the support for this is built into Windows itself, any media player that uses this support can play your movies. This includes *Windows Media Player* and *Windows Media Centre*. The latter is designed to be used from a distance by remote control and, if your PC came with a remote control and has a big enough screen, this is certainly the way to watch movies full-screen.

For any codecs that are missing you can find my recommendation for an excellent codec pack in Appendix E.

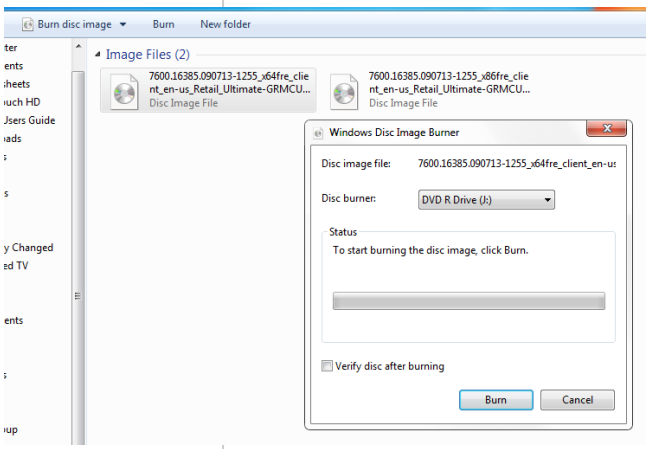
BURNING DISCS

Windows 7 has native support for burning data CDs, DVDs and Blu-Ray discs.

Right clicking on a file, or a selection of several files will give you an option to *Send to...* And your optical drive will appear in the list.



Windows 7 also now natively supports burning ISO disc images, should you have any. Right clicking on an image will bring up a *Burn disc image* option.



This will also appear as an option in the *Explorer* toolbar when you click on an image file.

QUICK TIP

Movies on the move

Windows 7 will natively play both DVD and Blu-ray movies, making it a viable option for watching movies on the move and while travelling.

Check your power-usage settings in the *Control Panel* to get the best out of your battery as the constant spinning and reading of the movie disc could drain your power before the credits roll.

Part 10

Communicating

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Microsoft Powertoys

Microsoft have released powertoys for previous versions and additional software including the excellent *SyncToy* backup program and a utility to allow you to view and edit all the additional tags added by digital cameras to give extra information about your photos.

It's worth visiting the Microsoft website occasionally to look for anything new.

WINDOWS LIVE

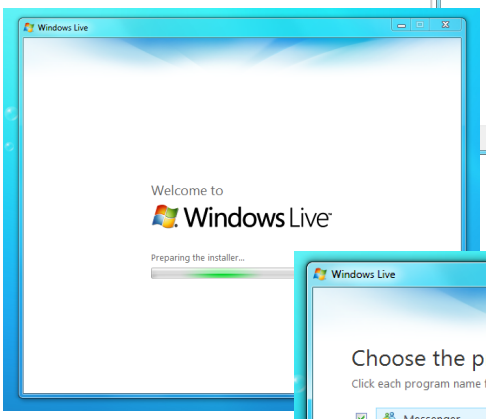
Many of the programs we used in previous versions of Windows, like *Mail*, *Calendar* and *Movie Maker* have been removed in Windows 7 and ported to the separate *Windows Live Essentials Suite*.

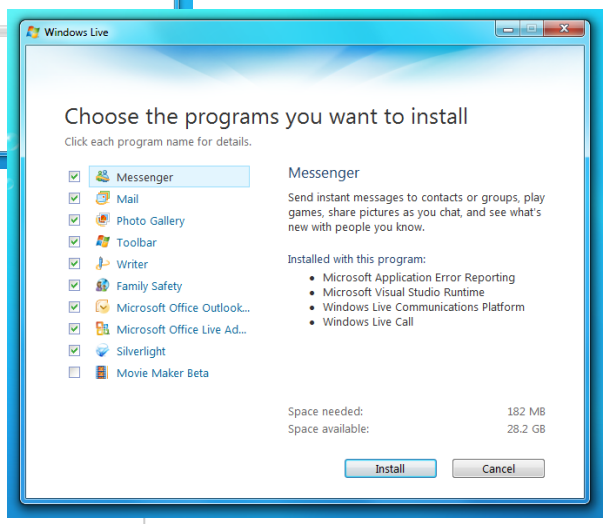
This makes a lot of sense because it means they will be updated more regularly, and the features in them will be much better than if they were bundles with Windows itself.

You can download *Windows Live Essentials Suite* from...

download.live.com

The suite also includes *Messenger*, the Live Internet Explorer *Toolbar* and the useful *Family Safety* software, which provides internet content filtering for the Windows 7 *Parental Controls*.





You can choose which programs you want installed when download the main installer.

PHOTO VIEWER

Windows Photo Viewer is one of only two applications to remain in Windows 7, the other being *Windows DVD Maker*. It is a stripped down version of *Windows Live Photo Gallery* and, frankly, I'd recommend installing that version from the *Windows Live Essentials Suite* and using that instead.

WINDOWS DVD MAKER

Windows DVD maker is a useful tool for creating DVDs on your PC from photo libraries or home videos.

It is entirely wizard driven and extremely easy to use.

CONTACTS

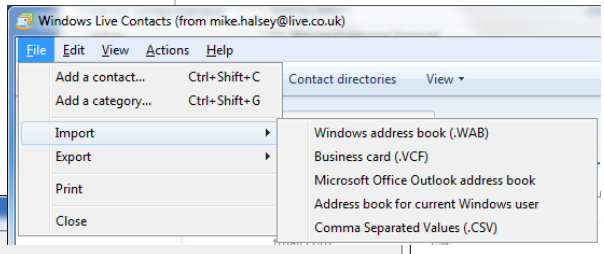
The old *Windows Address Book* is alive and kicking though it's no longer a very good option because nothing seems to use it. Windows Live, Gmail and Yahoo! mail all use their own address books and the *Windows Live Essentials Suite* also has it's own contacts file.

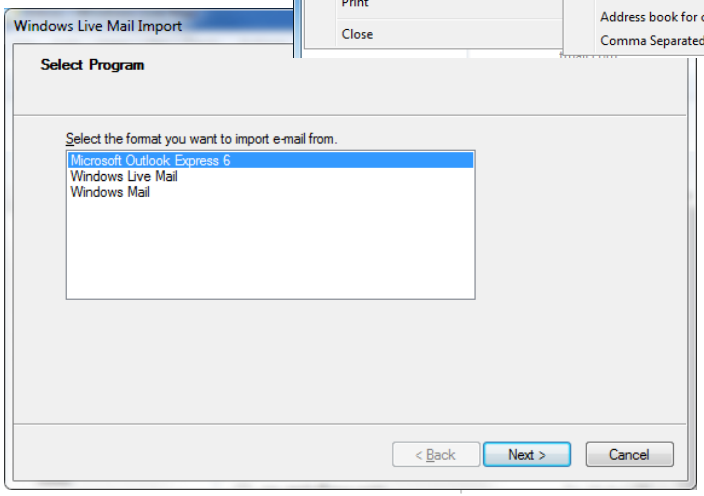
You can open these contact by clicking on your name in the top right of the Start Menu.

MOVING TO WINDOWS LIVE MAIL

If you are moving from *Windows Mail* on Windows Vista or *Outlook Express 6* on Windows XP it's simple to import your contacts and email into *Windows Live Mail*.

In *Windows Mail* or *Outlook Express* go to the *File* menu [in Windows Vista, press the *Alt* key on your keyboard to bring up the menu] and select the *Export* option. Here you can export your mail and contacts.





On your Windows 7 PC, you will need to import mail and contacts separately. The procedure is the same for both.

Press the *Alt* key on your keyboard to bring up the menu and select *Import* from the *File* menu. Here you can point *Windows Live Mail* at your mail and contacts backup and import them.

If you are using a **Hotmail** account there will be no need to do this as your email and contacts will be automatically downloaded and synchronised with your webmail when you set up your email account in *Windows Live Mail*.

QUICK TIP

Back up your email before installing Windows 7

If you store your email in a program like Outlook Express in XP or Windows Mail in Vista you should use that program to back up your email to storage such as an external hard disk *before* installing Windows 7.

Windows Easy Transfer will **not** *copy those emails across, even if you have already installed Windows Live Mail.*

QUICK TIP

XPS vs PDF

If you want a portable document format to use for sending files to friends and colleagues you currently have choice between XPS and Adobe's PDF format.

I can only really recommend PDF here if you have Office 2007 or Office 2010 installed. XPS files can only be natively read by Windows 7 and Vista unless you download a plug-in. Office 2007 can write PDF files with a plug-in and Office 2010 can do so natively.

While PDF files also require a plug-in, this is much more common.

IMPORTING YOUR CALENDAR INTO WINDOWS LIVE MAIL

Sadly, *Windows Live Mail* does not, at least at the time of writing, have the ability to import calendars.

If you are using *Windows Calendar* on Windows Vista and have a Hotmail, Live or MSN email address you will be able to retrieve your calendar by following the instructions below. If you use another email provider and are using *Windows Calendar* in Vista you will sadly be unable to import your calendar items unless your email provider provides a similar facility and *Windows Live Mail* is able to synchronise with it.

In *Windows Calendar*, press the *Alt* button on your keyboard to bring up the menu. From the *File* menu select *Export* and export your calendar as an ICS file to a USB pen drive, external hard disk or to a file on your hard disk you can burn to a CD or DVD.

Next you will need to access your Live account through a web browser.

1. Log into your account at calendar.live.com
2. Press Subscribe
3. Select *Import from an ICS file*.
4. Browse for the calendar you want to import
5. Click *Import Calendar*.

XPS DOCUMENTS

The XPS document format was introduced by Microsoft a few years ago as a potential rival to Adobe's popular PDF, portable document format.

While not as popular it's still sometimes very useful. Windows 7 has the ability to view and create XPS files natively. This can be useful for keeping electronic copies of, say a sales receipt displayed in a web browser.

The XPS write shows up as a printer so to create an XPS file, print the document and select the *Microsoft XPS Document Writer*.

SIDESHOW

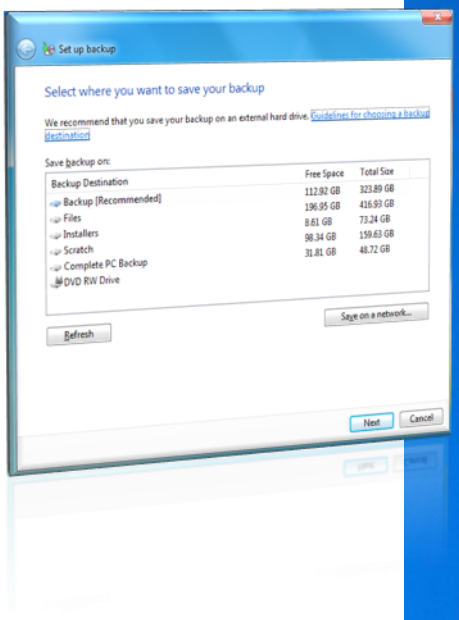
First introduced with Windows Vista, *Sideshow* allows computers with compatible hardware to continue to be used even when in sleep mode.

Sideshow allows applications to communicate with you via and external display, say on the lid of a laptop. You can view photos, play music and a variety of other tasks.

Sideshow has been side-lined in Windows 7 but it is still supported. It won't appear by default in the *Control Panel* but will appear there if you connect a compatible *Sideshow* device to your PC [either built-in or by Bluetooth].

Many people have reported problems with Sideshow devices in Windows 7 and if you experience difficulties you should visit the support website for your *Sideshow* hardware.

Part 11



Guaranteeing

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Previous Versions vs Backup

Previous versions can be a useful way of reverting to an older version of a file. However it doesn't always index every file and won't work if the file has been deleted.

You should still make regular backups of your software using Windows Backup or a third-party backup solution.

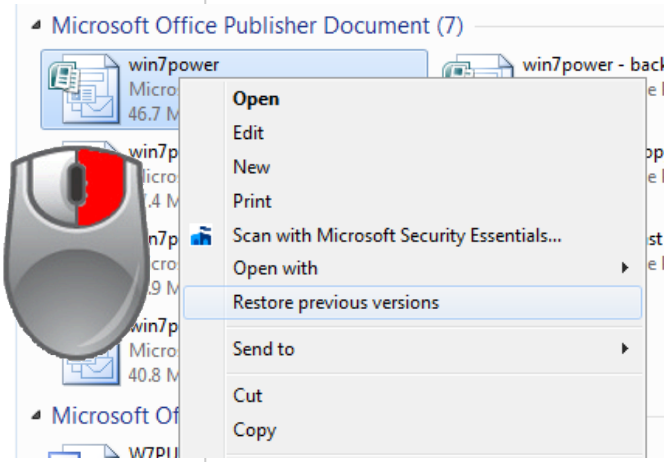
PREVIOUS VERSIONS

Windows 7 includes a feature called *Previous Versions* that can keep copies of your documents as they change, enabling you to revert to a previous copy if you make a change you later want to undo.

This feature needs to be enabled. If you have moved your documents away form the hard disk or partition on which Windows 7 is installed see *System Protection* in the **Configuring** chapter for instructions.

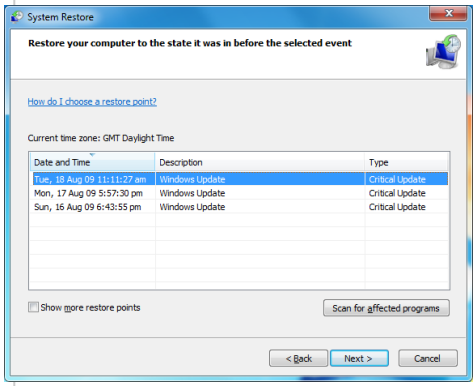
Right clicking on a file will bring up a menu from which you can select *Restore previous versions*. If any previous copies of the file exist, they will show up in the window that appears. Selecting one will allow you to restore it.

NOTE: *Previous Versions* should not be relied upon as an alternative to backing up your files, as there is no guarantee Windows will have an older copy of your files. It will also not allow you to recover deleted files.



SYSTEM RESTORE

As with previous versions of Windows, *System Restore* is a good way to recover your PC if something goes wrong. Restore points are created automatically when a major change is made to your computer, such as a driver or a new piece of software is installed. You can manually create a restore point however by typing *create a restore point* into the Start Menu search box.



You can access *System Restore* through opening *Backup and Restore* from the *Control Panel* and clicking on the link *Recover system settings or your computer* from the window that appears or by typing *System Restore* into the Start Menu search box.

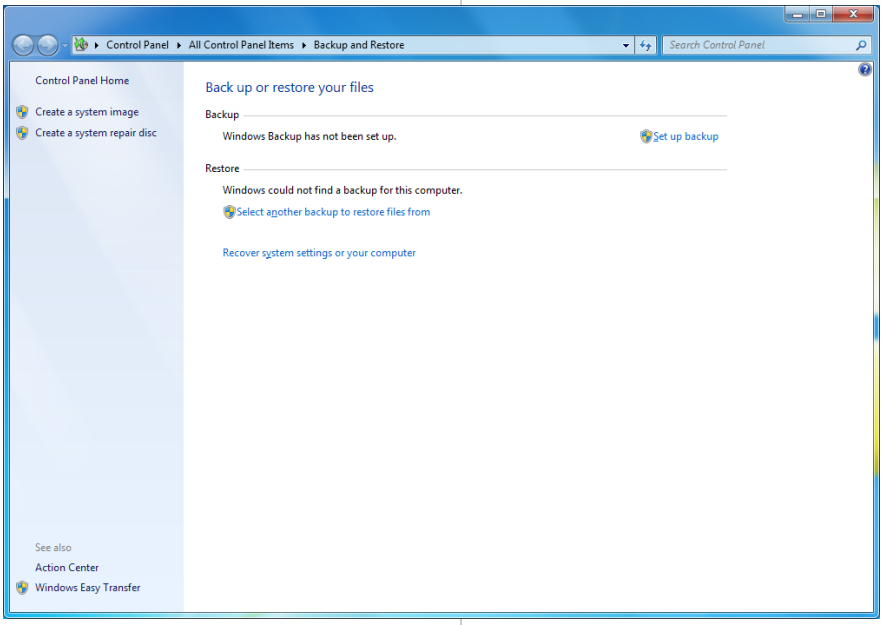
WINDOWS BACKUP

Backup has been streamlined and simplified in Windows 7. It is now available in the *Control Panel* or the Start Menu as *Backup and Restore*.

BACKING UP FILES AND DOCUMENTS

You can easily back up your files, documents, music, photos, pictures and video with the wizard-based backup system. Click *Set up Backup* in the *Backup and Restore Centre* to start this process.

You can set automatic backs to another hard disk or partition in your computer. There is a **Step-by-Step** guide in this chapter on how to do this in detail.



You can save your backups to another hard disk or partition in side your machine, an external hard disk, DVD or Blu -Ray disc or onto a home network device.

CREATE A SYSTEM IMAGE

Windows Vista included the ability to create a full system-image of your Windows installation, so that if something went wrong you could restore it and within 15 or 20 minutes you'd have a fully working copy of Windows again. This invaluable inclusion was dampened by only being available in Vista Business and Vista Ultimate.

The good news is that this feature is now available in every single edition of Windows 7. There is a **Step-by-Step** guide later in this chapter on how to use this facility but I do thoroughly recommend that, after you have installed Windows and your programs, and configured everything the way you want it, that you create a system image.

QUICK TIP

System Images

When you have installed Windows 7, configured it how you want and installed all your software you should create a backup image.

This is a snapshot of your PC, the drive or partition containing Windows 7 anyway, at that moment in time.

You can use this to restore Windows to a fully working copy in just ten minutes or so if something goes wrong or Windows starts to misbehave.

QUICK TIP

Restoring Windows

You can create a system repair disc by typing *repair* into the search box in the Start Menu and selecting *Create a System Repair Disc*.

This disc can be used to restore Windows 7 in the event that you cannot get it to boot.

You can also start your PC from your Windows 7 install DVD to achieve this as well.

You can save your backups to another hard disk or partition in side your machine, an external hard disk, DVD or Blu-Ray disc or onto a home network device.

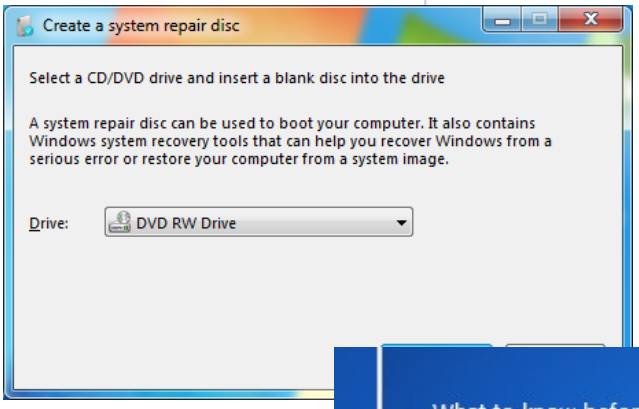
SYSTEM REPAIR DISC

To restore a system image backup you need to boot your PC from either your Windows 7 installation DVD or a *system repair disc*.

If you want to keep your Windows 7 install DVD safe then creating a system rescue disc is an excellent option.

You can create this on a blank CD or DVD and it will contain tools for repairing Windows 7 in the event of a problem and restoring from your system image backup as well.

Click on *Create a system repair disc* in the *Backup and Restore* centre to bring up the wizard which will walk you through this process.



RESTORING FILES FROM A BACKUP

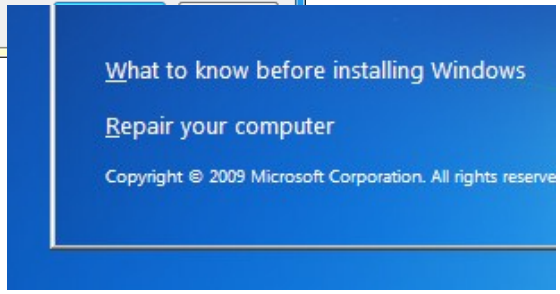
To restore files you have previously backed up open the *Backup and Restore* centre and in the *Restore* section should be details of your most recent backup. You can click on this to run the restore wizard.

If your backup doesn't show up here, for instance it is stored on a network location you are temporarily disconnected from, click the link *Select another backup to restore files from* and search for your backup file.

RESTORING WINDOWS FROM A SYSTEM IMAGE

If you need to restore Windows from a system image, boot your PC from the Windows 7 install DVD or your *System repair disc* and, when prompted, click the *Repair your computer* link.

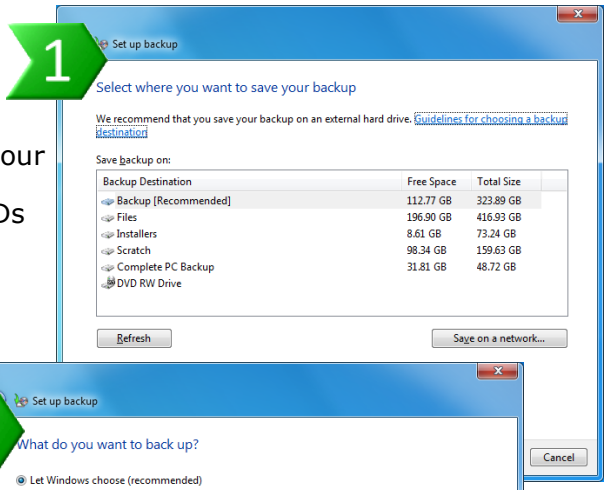
This will find your backup image, unless it is stored remotely in which case you can search for it, and restore you to a fully-working copy of Windows in between 10 and 20 minutes.



BACKING UP FILES AND DOCUMENTS

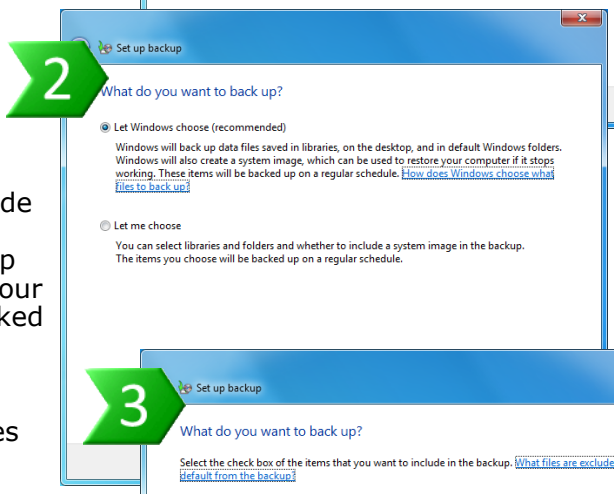
1 Open the *Backup and Restore* centre from the Start Menu or the *Control Panel* and click the link *Set up Backup*.

You will be asked where you want to store your backup. This can be on a local hard disk or partition, an external hard disk, a set of DVDs or Blu-Ray discs or on a home network.

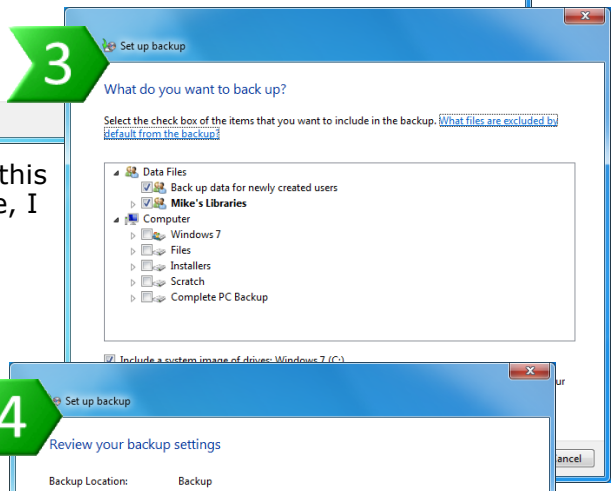


2 Next you will be asked if you want Windows to select the best files to be backed up or if you want to choose the files and folders yourself.

By default, Windows will want to include a system image which will make your backup very large and slow the backup down. Any problems that appear in your computer over time could also be backed up into future images. I suggest you create a *system image* separately.

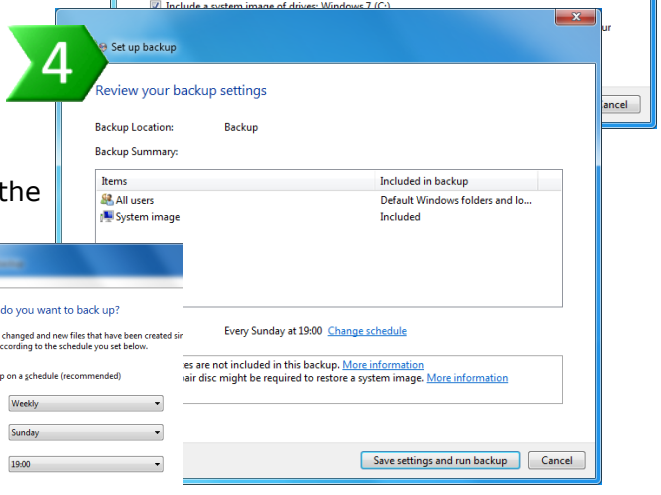


3 If you want to choose what files and folders are backed up you can do so on the next screen. You will also be prompted at the bottom of this screen to create a system image. As before, I recommend you do this separately.



4 The next screen will show you what files ND folders are to be backed up and it will give you the option to set an automatic backup schedule.

Click in the *Change schedule* link to set the schedule you want your backup to run. Daily, weekly or monthly and at what times of what days.



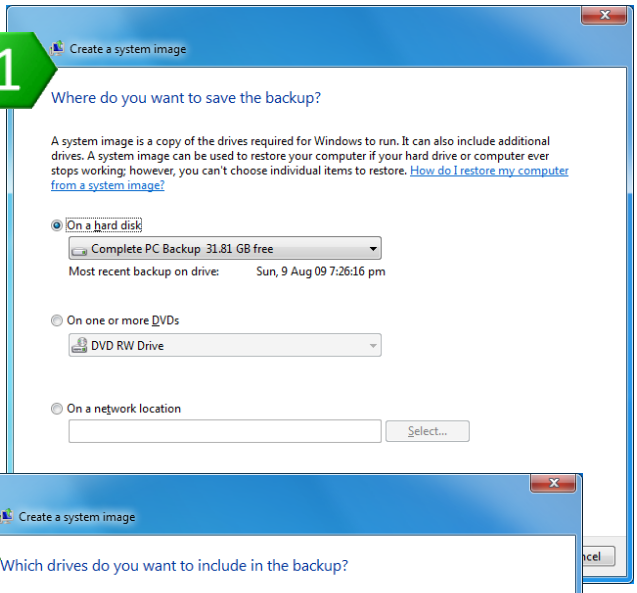
5 When you are ready to start your first backup press the *Save settings and run backup* button.

CREATING A SYSTEM IMAGE BACKUP

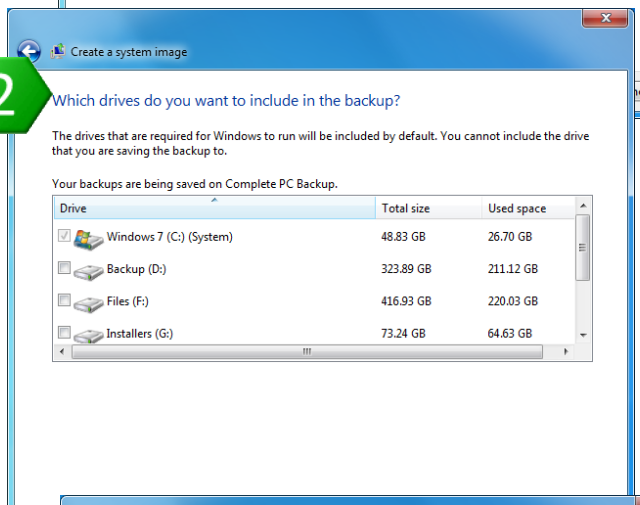
1 Open the *Backup and Restore* centre from the Start Menu or the *Control Panel* and click the link *Create a system image* in the left hand pane.

Select the location on which you want your system image to be stored. This can be a hard disk or partition in your PC, an external hard disk, a series of DVDs or Blue-Ray disc or a network location.

NOTE : If you connect your PC to your network via Wi-Fi I do not recommend storing your system image on a network.

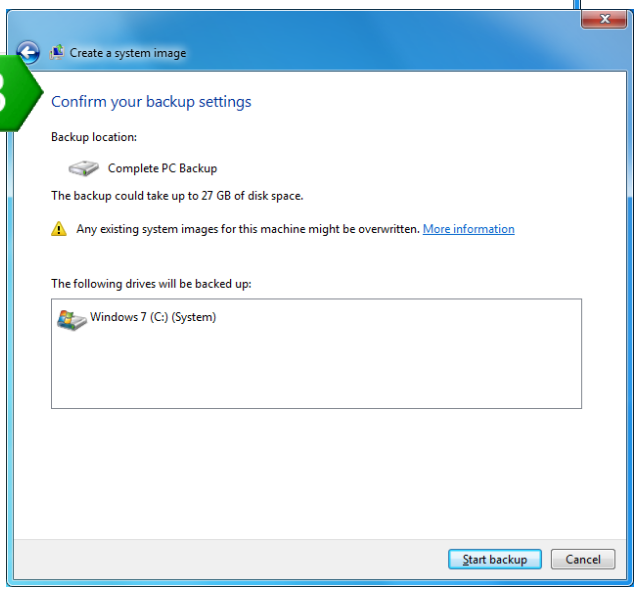


2 The next step is to decide what hard disks or partitions will be included in your backup. I suggest only including the drive on which Windows is installed.



NOTE : If you include a hard disk containing your files, those files will also be restored to earlier versions when you restore the image and any files created after the image was made will be deleted.

3 At the next screen the wizard will show you the backup settings you have chosen. Press *Start backup* to create the system image.



NOTE : I suggest that you close all your running programs and that you do not use Windows while the image is created to prevent any problems occurring.

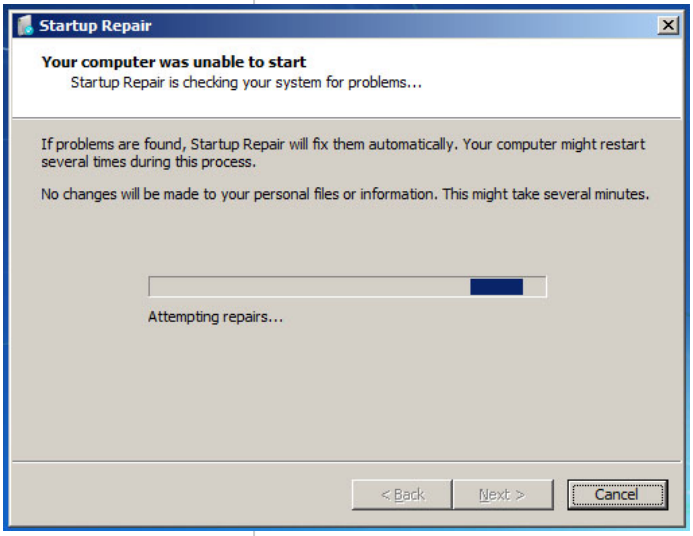
WINDOWS STARTUP REPAIR

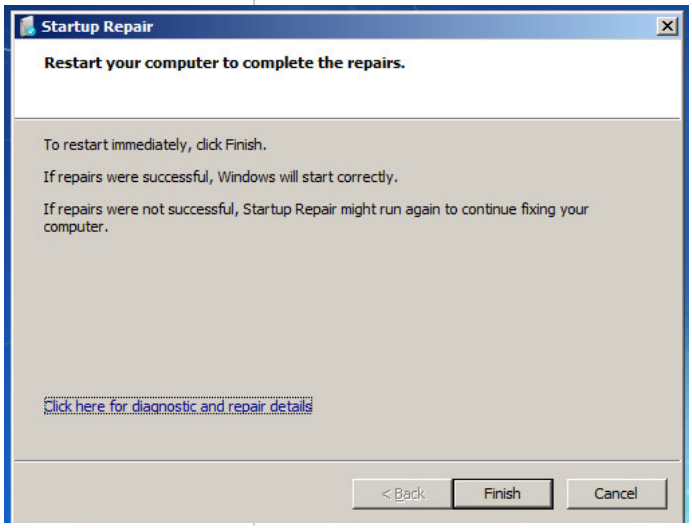
If disaster strikes and Windows 7 won't start then it has a clever trick up its sleeve. *Startup Repair* will detect that you can't get Windows to work and it will automatically kick in to try and solve the problem.

This is a series of programs on your hard disk that are automatically run at start-up if Windows cannot start.

In the unlikely event that even *Startup repair* won't start, it's also contained on your Windows 7 install DVD and on any *System repair discs* that you create. Popping one of these into your DVD drive and booting from it will have the same effect.

It is a very efficient and helpful way to fix Windows. If *Startup repair* can't fix the problem then only restoring from a *System image* or reinstalling Windows from scratch will get you working again.





RECOVERY

In the *Control Panel* is an item called *Recovery*. Here are links to help you use *System Restore* or to restore your files form a backup.

Clicking *Advanced Recovery Methods* will help you restore your PC from a *System Image* or, if required, reinstall Windows 7 from scratch using your original installation DVD.

QUICK TIP

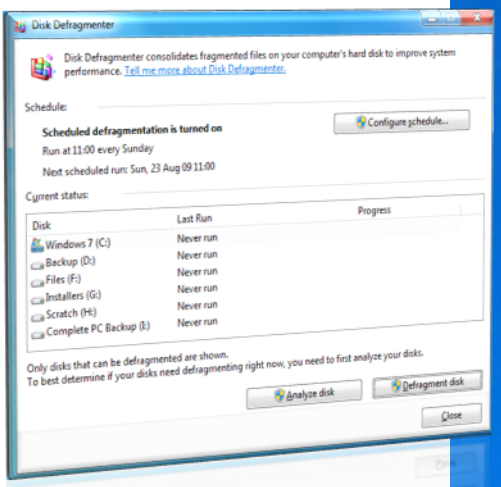
Recovery Options

Opening the *Control Panel* and selecting *Recovery* gives you a great many ways to recover a faulty Windows 7 installation or lost documents.

This should be your first port of call if something is wrong with your copy of Windows 7.

You can start with running *System Restore* to try and restore your copy of Windows 7 to a time before the error or problem occurred.

Part 12



Maintaining

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Third-party cleaning tools

Appendix E contains my recommendations for third-party software. This includes tools for cleaning and maintaining Windows 7.

Cleaning out temporary files and cleaning the registry can have a tremendous effect on keeping Windows 7 running smoothly.

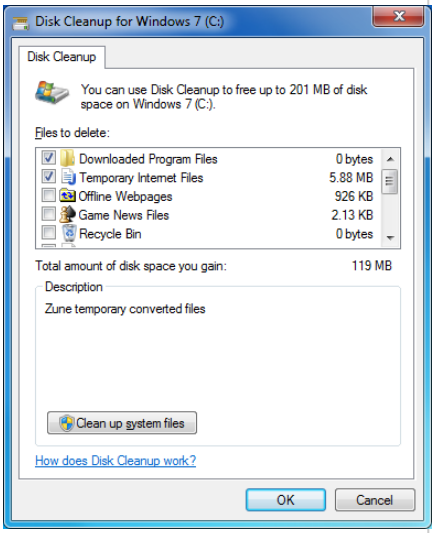
CLEANING WINDOWS

It's the case with every operating system that over a period of time it will get clogged up with temporarily files and other stuff that will ultimately slow it down. Keeping Windows lean is relatively simple and should be done every month or two to keep Windows 7 running smoothly and efficiently.

DISK CLEAN-UP

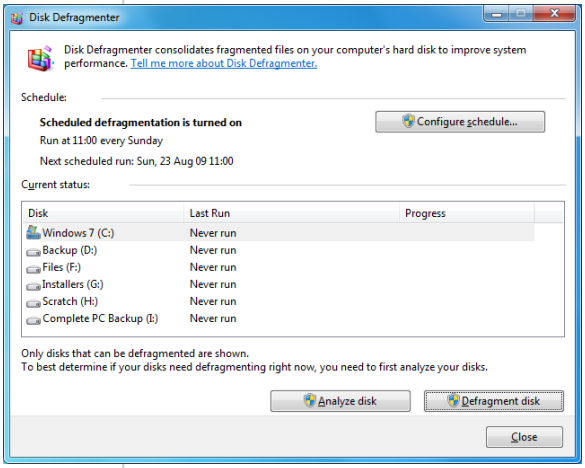
Located in the *Start Menu* by searching for *clean* or in *Accessories* and then *System Tools* is the *Disk Clean-up* tool. This wizard will walk you through removing any old, temporary and unwanted files on your PC.

There are better third-party tools on the market, see Appendix E, but this is a good, useful tool.



DISK DEFRAGMENTER

Also located in the *Start Menu* by searching for *clean* or in *Accessories* and then *System Tools* is the *Disk Defragmenter*.



Over time, as your hard disk or partition fills up with temporary files, documents, music, photos and other files you save can become fragmented. This means there isn't enough space for Windows to store the file where it wants to so, instead, it breaks the file into smaller chunks and scatters it around.

This can make accessing your files very slow. The Defragmenter shuffles all these pieces of files around so that the files are complete as they ought to be.

You can, and should, set the defragmenter to run on an automatic schedule. This will happen quietly in the background, you will never know it's happening, but it will help keep Windows 7 feeling quick.

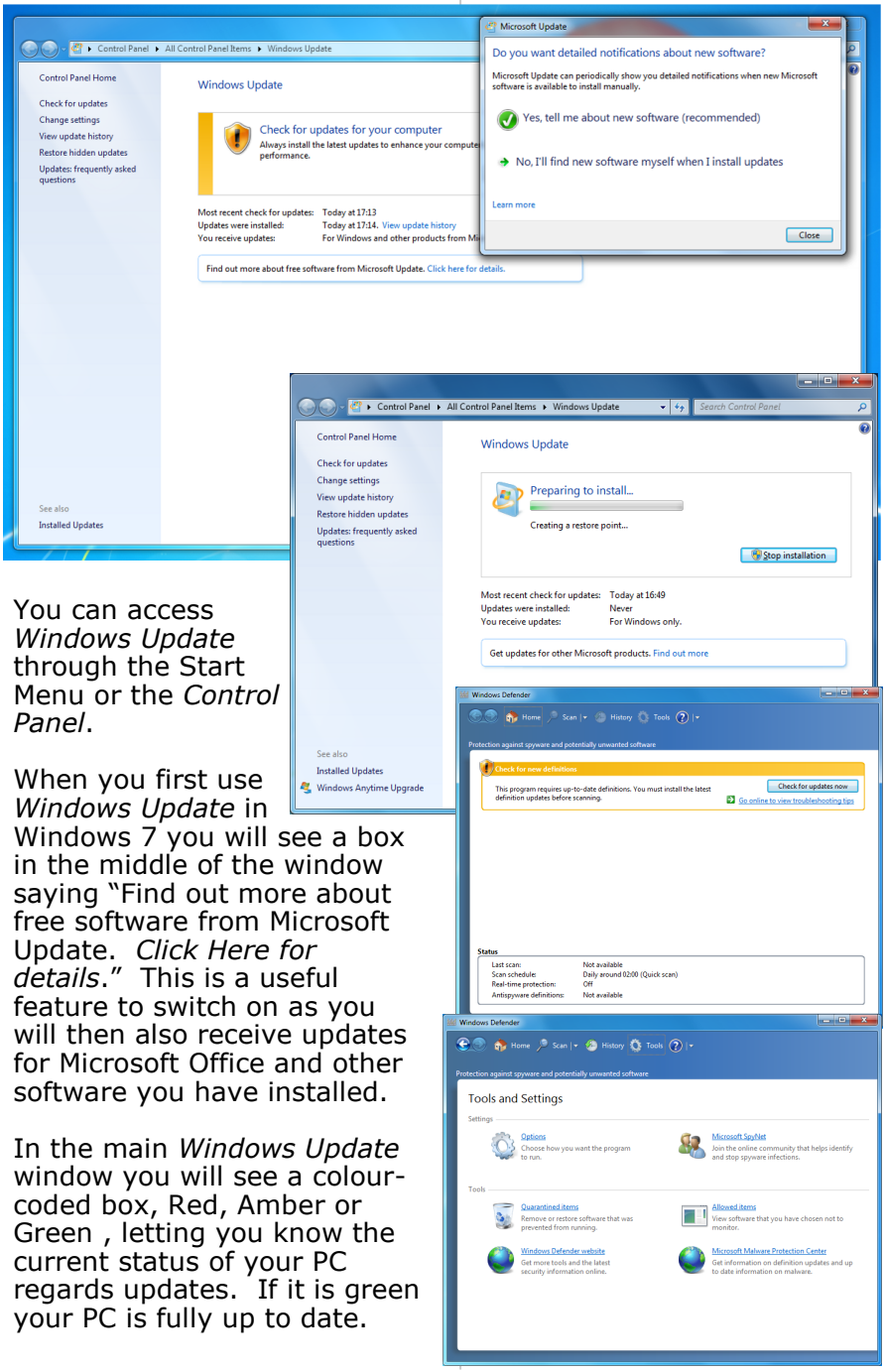
NOTE : You should not defragment too many drives or partitions at once as this can be slow and put a lot of physical pressure on the disks.

WINDOWS UPDATE

Windows Update is the system intended to keep your copy of Windows up to date with the latest updates and patches. You should have it switched on and can set it to download and install new updates at a schedule to suit you.

WINDOWS DEFENDER

Windows Defender is the anti-spyware software that comes with Windows 7. You can set it to run on a schedule you specify but should also use other anti-spyware software as well.



You can access *Windows Update* through the Start Menu or the *Control Panel*.

When you first use *Windows Update* in Windows 7 you will see a box in the middle of the window saying "Find out more about free software from Microsoft Update. *Click Here for details*." This is a useful feature to switch on as you will then also receive updates for Microsoft Office and other software you have installed.

In the main *Windows Update* window you will see a colour-coded box, Red, Amber or Green , letting you know the current status of your PC regards updates. If it is green your PC is fully up to date.

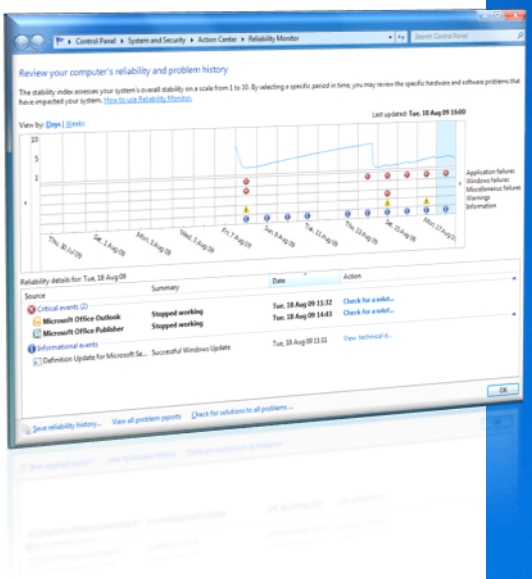
QUICK TIP

Keep Windows up-to-date

You should make sure that *Windows Update* is left switched on to download recommended updates.

This will make sure your PC is always patched with the latest and most up-to-date fixes for both it and any other Microsoft software.

Part 13



Diagnosing

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

Keep and eye on the flag

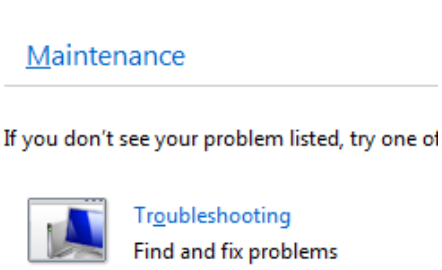
The flag icon at the bottom right of your Taskbar will notify you by high-lighting itself with a red warning cross when something in Windows needs your attention.

This is your prompt that you will need to act to fix a po-tentially harmful problem on your pc, such as your anti-virus software being out of date.

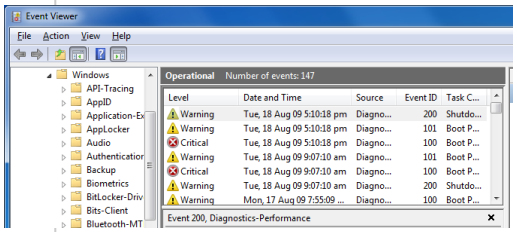
ACTION CENTRE

The first place to check for solutions to problems your computer might be having is the *Action Centre,* accessed from the flag on the Taskbar or through the *Control Panel*.

As Windows encounters problems it reports many of them directly back to Microsoft. Occasionally you will find a solution fed back directly to your PC. The *Action Centre* will notify you when a problem solution is available.



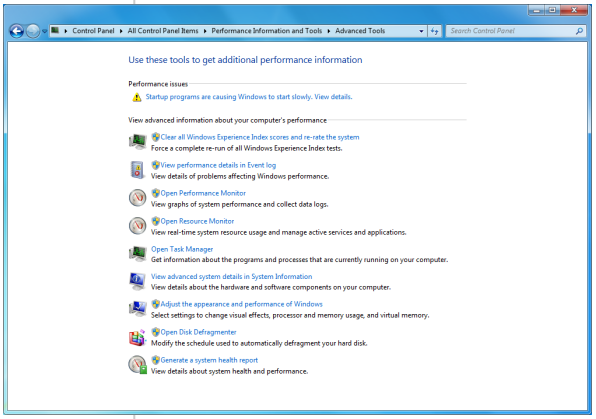
For instance, let's say that Windows is crashing or blue-screening.



Clicking on *Windows Logs* and then *System* in the left-hand pane will bring up a list of things that have happened with the operating system.

PERFORMANCE INFORMATION AND TOOLS

Available through the 'all icons' view of the *Control Panel* or from the Start Menu is *Performance Information and Tools*.

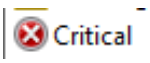


Clicking the *Advanced* link in the left-hand pane will bring up options you can use to help diagnose and fix problems with your PC.

EVENT LOG

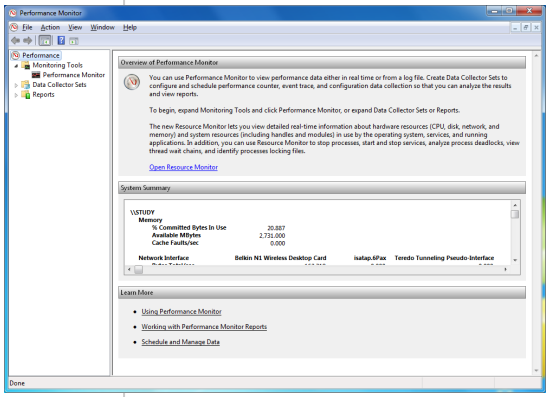
There is a great deal of technical information stored by Windows in the *Event Log*. This can be extremely useful when tracking down a problem.

You may see some *critical* errors. Clicking on the error will bring up more information in the pane below about the error. You may see a clue, such as details of a piece of hardware or a driver name that will tell you if, for instance you have an unstable driver for your graphics card or if a .dll file is malfunctioning. See the section *Fixing Problems* later.



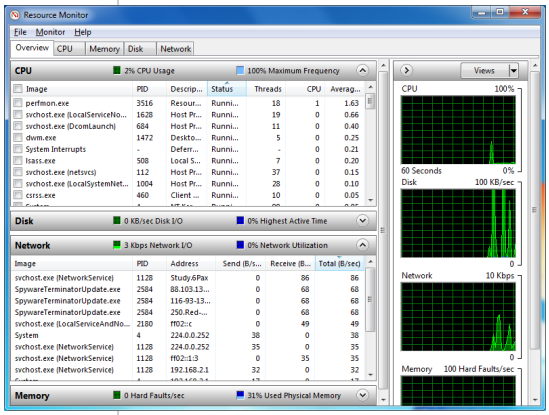
PERFORMANCE MONITOR

For experienced technical users and system administrators only, the *Performance Monitor* can give you detailed real-time status information for a great deal of hardware and software components inside your PC.



RESOURCE MONITOR

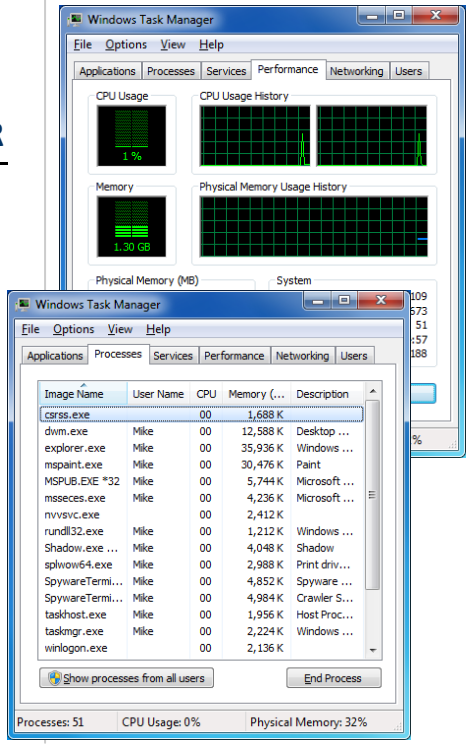
The *Resource Monitor* can be useful for seeing problems with disk or network throughput if you think you may be having problems, say with your internet connection. It will give you real-time displays of most things happening with your PC.



TASK MANAGER

Also available by right clicking on the Taskbar, the *Task Manager* is your main view into the world of your PC. It will tell you what's running, how much processor time and memory programs are taking up and this is where you can shut-down hung programs.

Under the *Applications* and *Processes* tabs you can right-click on programs and select *End Task* to shut them down if they have crashed.



QUICK TIP

Use the Task Manager

Available by *right clicking* on your Taskbar and selecting *Start Task Manager*, this helpful utility will let you see if any programs on your PC aren't responding.

You can right click on these programs and select *End Task* to shut them down.

QUICK TIP

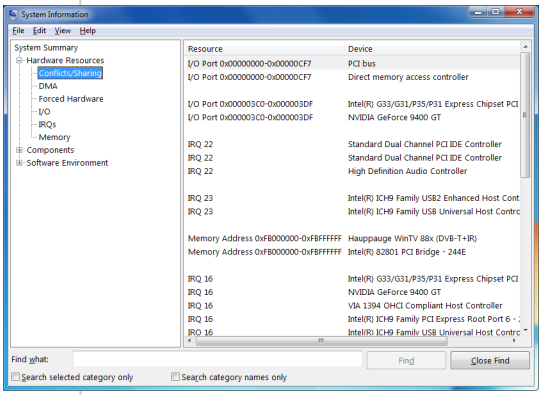
Health Reports

If you are asking a friend to help diagnose problems with your PC it can be useful to first generate a *System Health Report,* see right for details of how to do this.

You can save this report and email it or give it to your friend.

System Health Reports contain a wealth of extremely useful information when diagnosing problems with your PC.

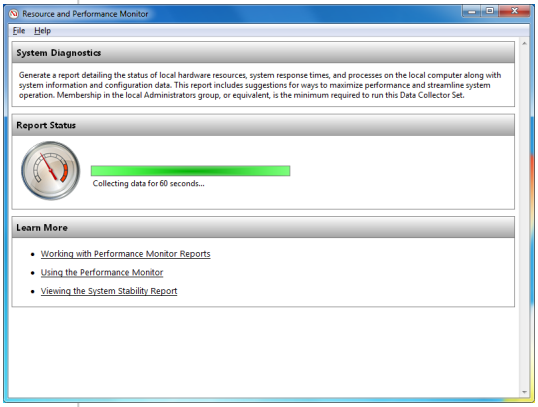
SYSTEM INFORMATION



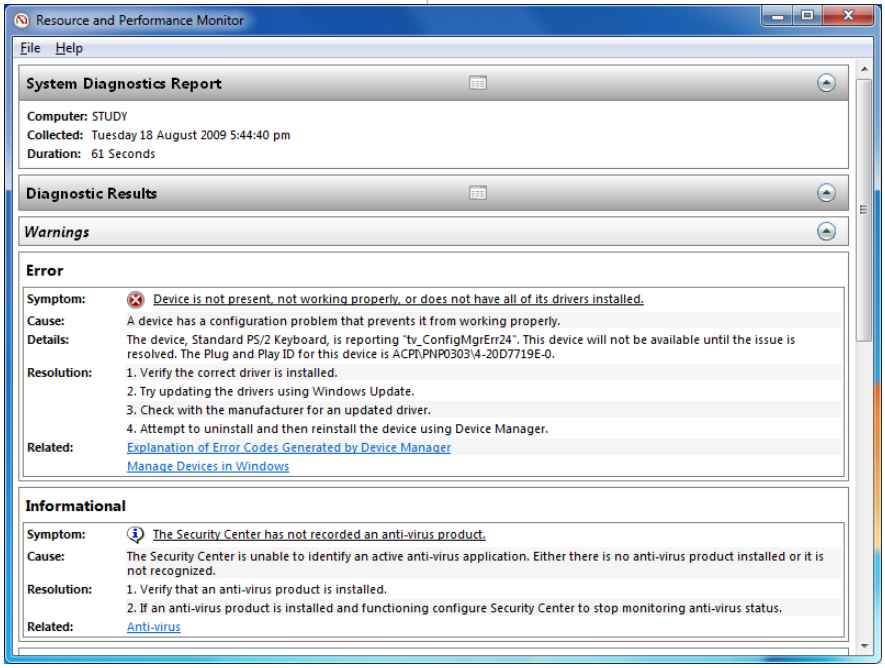
The system information screen can be very useful if you need to give anybody detailed information about your PC and the version of Windows and the software running on it.

This screen can also prove useful when you want to upgrade your PC and need to find new, compatible, hardware.

SYSTEM HEALTH REPORT



Generating a *System Health Report* can provide all sorts of useful information when diagnosing problems with your PC. It can inform you of faulty Windows files or drivers and much more.

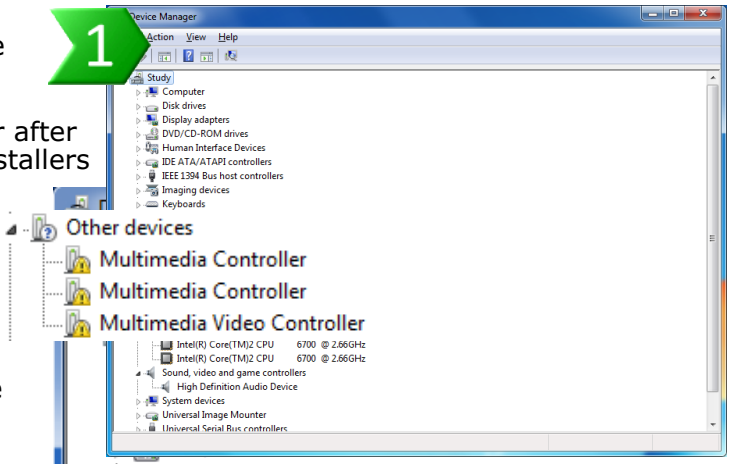


INSTALLING A DEVICE DRIVER

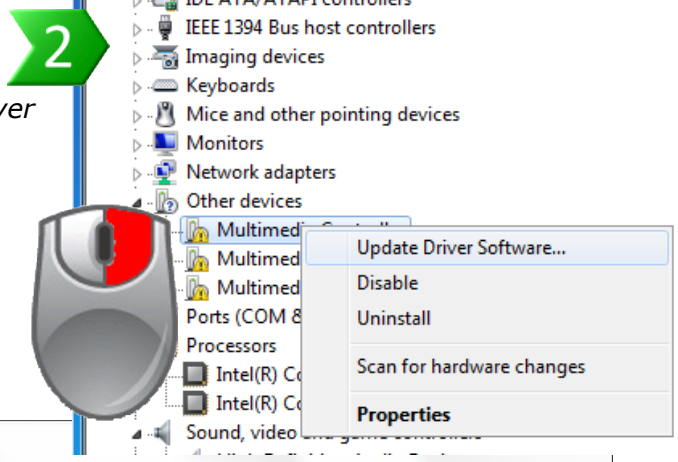
1 Windows 7 is excellent at finding drivers for hardware but occasionally, as new hardware is released after your Windows DVD was created, or after a fresh install, it may file to find installers for new hardware.

To manually install drivers, open the *Device Manager* from the *Control Panel* or by searching for it in the Start Menu.

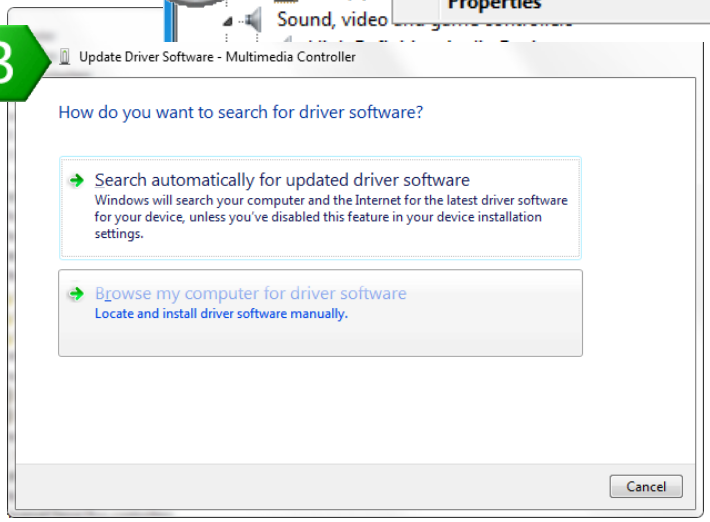
Any hardware for which drivers are not installed will show up with a yellow triangle next to them.



2 Right-click on the hardware and from the context menu that appears click *Update Driver Software*.



3 Select if you want Windows to search for the driver, which won't be worth it if Windows has failed previously, for instance when it was installed or if it's the network hardware you need to get online so Windows can search Windows Update, or if you want to browse for the driver on your hard disk or an a supplied DVD.

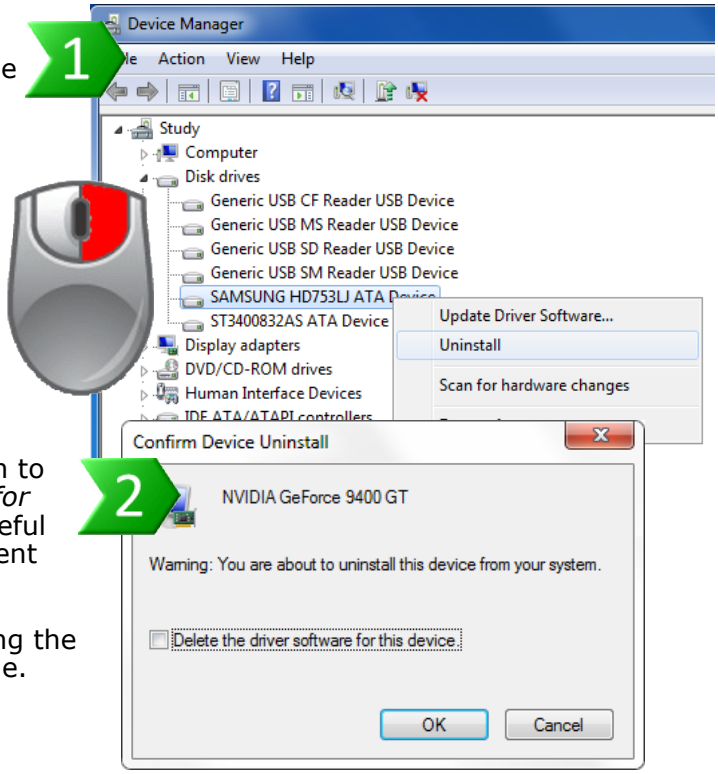


If you find the right folder on the disc, Windows should have no problems installing the driver.

REMOVING AND REINSTLLING DRIVERS

1 If you need to remove or reinstall a device driver, go into *Device Manager* from the *Control Panel* and find the component you want to uninstall / reinstall.

Right-click on it and from the context menu that appears select *Uninstall*.



2 You may be given an option to *Delete the driver software for this device*. This can be useful if you are installing a different driver version.

You can now reinstall the driver using the steps described on the previous page.

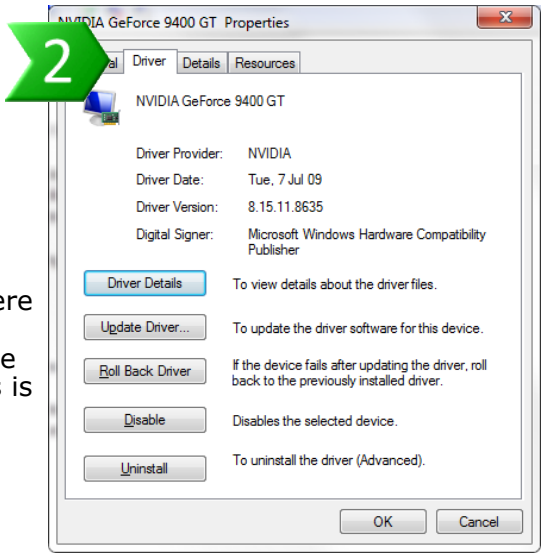
ROLLING BACK A DRIVER

Sometimes it can be useful to go back to a previous driver if you have upgraded a driver and it becomes faulty.

1 Go into *Device Manager* from the *Control Panel* and find the component you want to roll back the driver for.

Right-click on it and select *Properties* from the menu that appears.

2 In the window that pops up, under the *driver* tab, select *Roll Back driver*. If there is a previous version of the driver stored that Windows can restore, it will be done now. You may need to reboot your PC when this is complete.

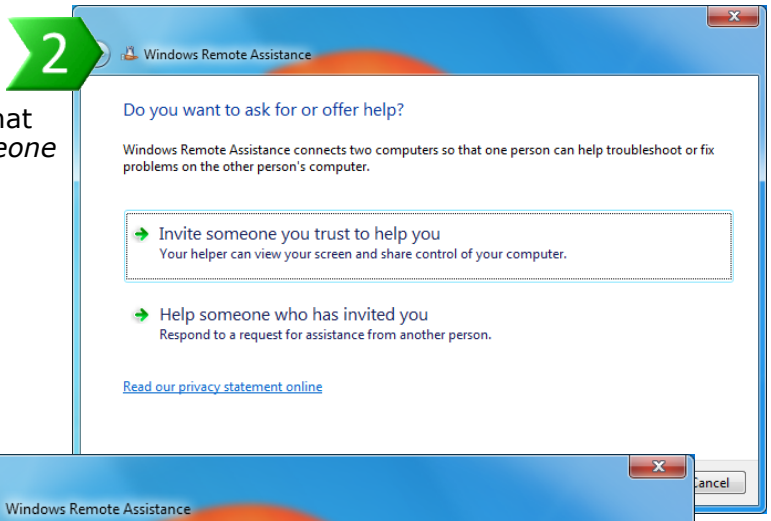


SEEKING REMOTE ASSISTANCE

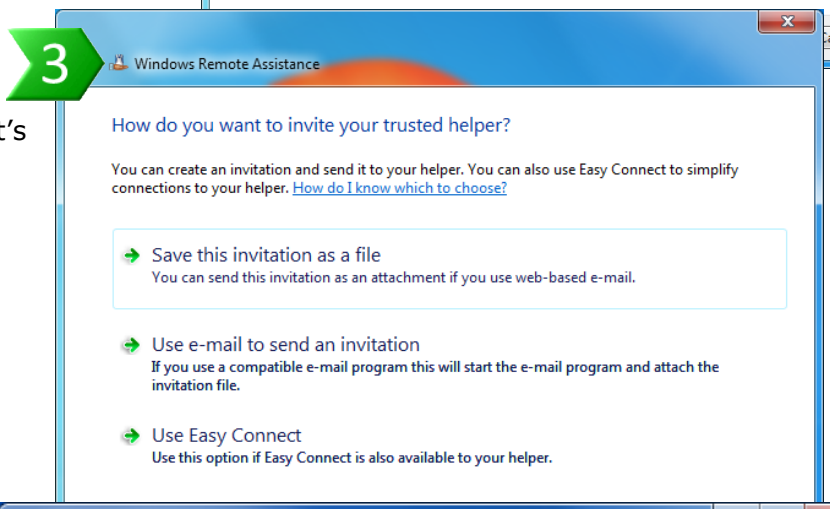
Windows 7 offers you the ability to let a friend or technical support person (make sure you know they're trustworthy) to take remote control of your PC over the internet.

1 Type *assist* in the Start Menu search box and run *Windows Remote Assistance*.

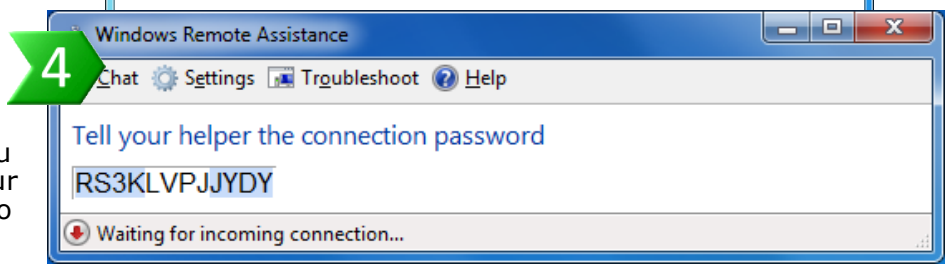
2 In the window that appears tell Windows that you want to *invite someone you trust to help you*.



3 The system will ask how you want to send the invitation. Choose the option that's best for you and press *Next*.



4 Once the invitation is sent a window will pop up and you should wait for your friend to connect to your PC.



You will be prompted to give them full control and it can be useful to tick the box that allows them to deal with any UAC *User Account Control* prompts too.

QUICK TIP

System File Checker

The *System File Checker* is an excellent utility for restoring parts of Windows that have become corrupt from the original install DVD, without having to reinstall all of Windows 7 itself.

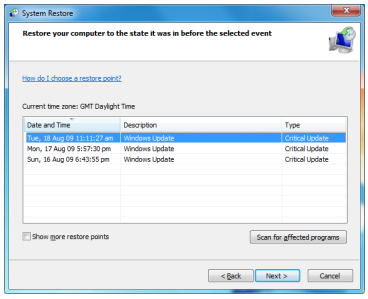
Instructions for how to use this excellent utility can be found on the right.

Note if you have installed a service pack into Windows 7, you may also need an install DVD containing that service pack.

You can find out online how to *slipstream* a service pack into a Windows DVD.

SYSTEM RESTORE

As with previous versions of Windows, *System Restore* is a good way to recover your PC if something goes wrong. Restore points are created automatically when a major change is made to your computer, such as a driver or a new piece of software is installed. You



can manually create a restore point however by typing *create a restore point* into the Start Menu search box.
You can access *System Restore* through opening *Backup and Restore* from the *Control Panel* and clicking on the link *Recover system settings or your computer* from the window that appears or by typing *System Restore* into the Start Menu search box.

SYSTEM FILE CHECKER

If Windows is faulty then it can sometimes be quickly and easily repaired using the *System File Checker*.

To use this useful utility, type *command* into the Start Menu search box and when *Command Prompt* appears, right click on it and select *Run as Administrator*. You will now need your Windows 7 install DVD in your main DVD or Blu-Ray drive, but don't run the installer.

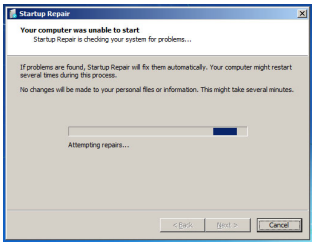
In the command window that appears on your screen type **SFC /SCANNOW** and press the *Enter* key.

The *System File Checker* will check every Windows file against the version on the DVD, and if it finds any files that have become corrupt, it will replace them with the original copy.

NOTE: if you have a Windows 7 Service Pack installed you may need an install DVD with that same service pack on it. Check with a Windows technician or on-line forums for how to create a *slipstreamed* Windows DVD.

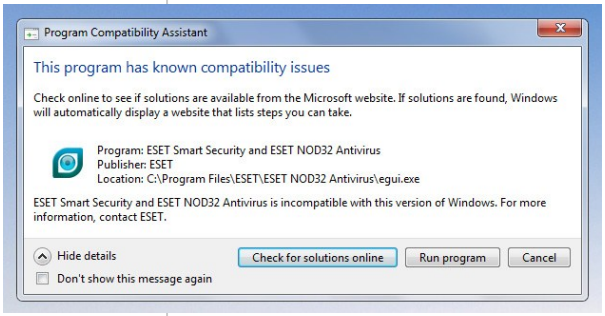
STARTUP REPAIR

Windows 7 is quite clever in that if it detects a problem that's preventing it from starting, a diagnostic utility, called *Startup Repair* will run to try and fix the problem.



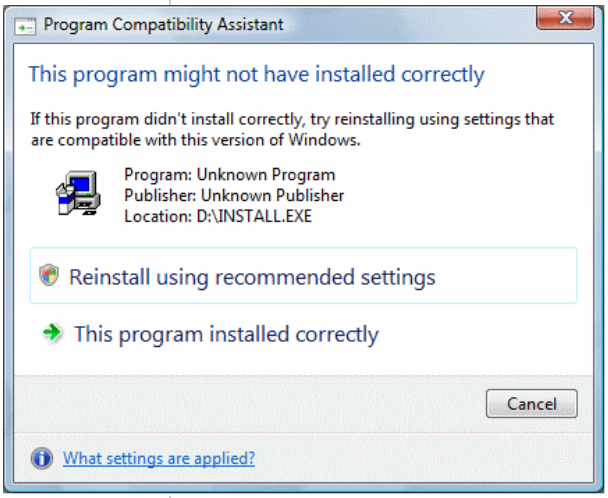
If you are getting past the BIOS screen, (black screen with white text) but Windows is not starting, this utility is also available by booting from your install DVD.

PROGRAM COMPATIBILITY



Windows 7 is far better able to run older software than Windows Vista was. In addition to this there are some useful tools built into the operating system.

The *Program Compatibility Assistant* is able to tell you if a program, when you are installing it, has any known compatibility issues with Windows. It will give you an option if it does to check for solutions to help you run the software.



Also if an installation does not work correctly, Windows 7 will automatically adjust itself to accommodate the installation, and will prompt you to reinstall it again *Using* [these] *Recommended Settings*.

Finally, right-clicking on a program in the Start Menu, selecting *Properties* from the menu that appears and navigating to the *Compatibility* tab will allow you to set the program to run in a special compatibility mode for a previous version of Windows.

XP MODE

PR UL

Windows 7 Professional and Ultimate feature an optional plug-in called *XP Mode*. This will allow still incompatible software to run in a Virtual Machine (see appendix F) on your desktop and it includes a full licenced copy of Windows XP Professional.

In order to be able to use *XP Mode* your motherboard and processor will need to support *Hardware Virtualisation*. You can find out about this in the manuals for your hardware.

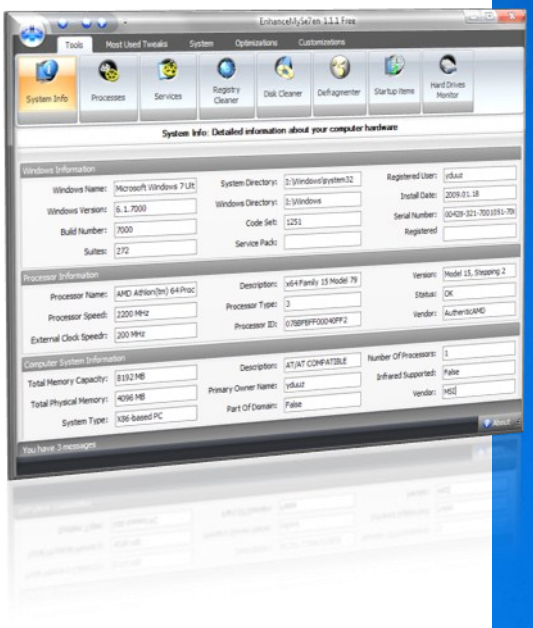
QUICK TIP

Program Compatibility Trouble-shooter

Program compatibility is excellent in Windows 7 but just in case typing *program compatibility* into the Start Menu search box will bring up the *Program Compatibility Trouble-shooter*.

This is an wizard-based system that will search your software for incompatibility issues and automatically apply fixes to help you get the software working again.

Part 15



Tweaking

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

MSConfig

MSConfig, accessed by typing its name into the search box in the Start Menu, is an excellent utility for disabling annoying start-up programs.

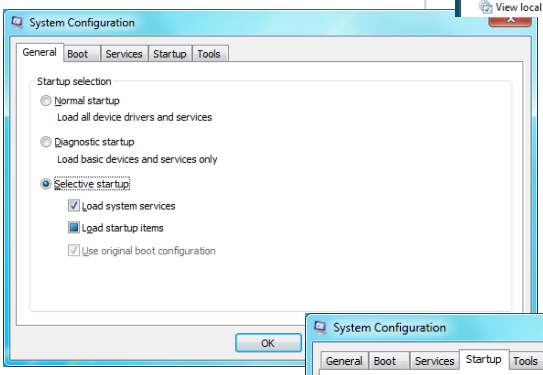
For more advanced users it is also very powerful for other tasks.

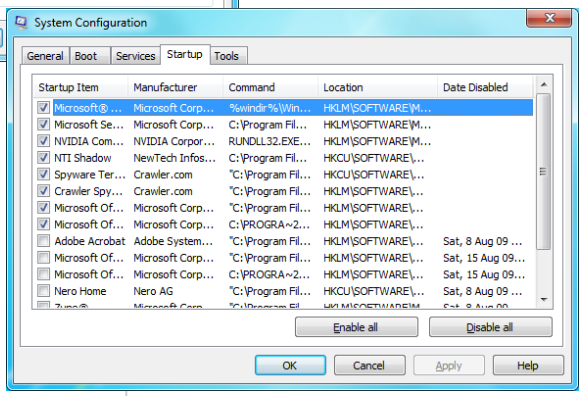
MSConfig should not be used for disabling Windows services though, this should always be done through the main *Services* control panel. For instructions on how to access this see the text on the right.

MSCONFIG

Search in the Start Menu for *MSConfig* and this useful little utility will appear.

It's most useful feature the *Startup* tab in which you can see, and deactivate,



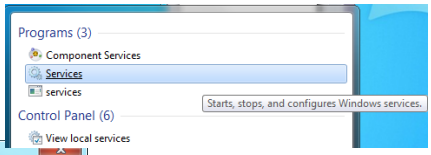


every program that's set to start when Windows boots.

Many pieces of software such as toolbars, utilities for disc burning software and updaters for software are often set to run at start up.

Deactivating unnecessary and unwanted software can speed up Startup and shutdown times, and speed Windows 7 in general use.

This operating system runs far fewer services than previous editions of Windows. It was the number of running services that was largely responsible for Windows Vista being very slow.

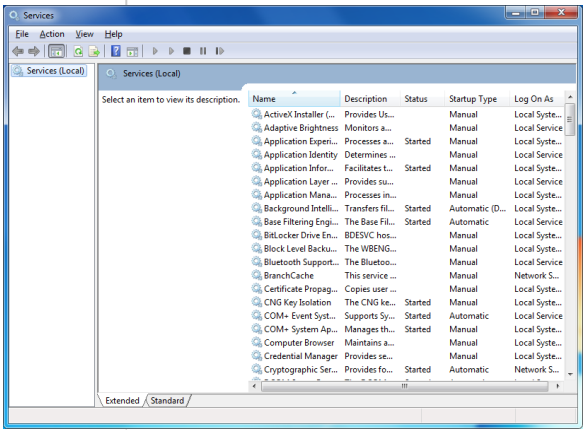


By default only the services Windows 7 needs are running. You can look down the list though to view all running services and shut down any that you feel you don't need.

Significant performance boosts can be gained by doing this, but be careful as shutting down the wrong service can cause Windows to crash, unable to restart.

SERVICES

Typing *services* into the Start Menu search box will find this utility with its cogs icon that enables you to start, stop and switch off services that are running in Windows 7.



THIRD-PARTY TWEAKING SOFTWARE

With every version of Windows there are always a great number of third-party tools that will enable you to tweak the settings in Windows to help you get the best from it.

Using third-party tweaking software does include risks that changing some Windows settings could cause Windows 7 to become unstable or even unable to boot, so caution should always be exercised when using these tools.

Just some of the Windows 7 tweaking utilities available include...

EnhanceMySe7en

www.seriousbit.com/tweak_windows_7

Ultimate Windows Tweaker

www.winvistaclub.com/Ultimate_Windows_Tweaker.html

XdN Tweaker

xenomorph.net/?page_id=336

TweakNow PowerPack

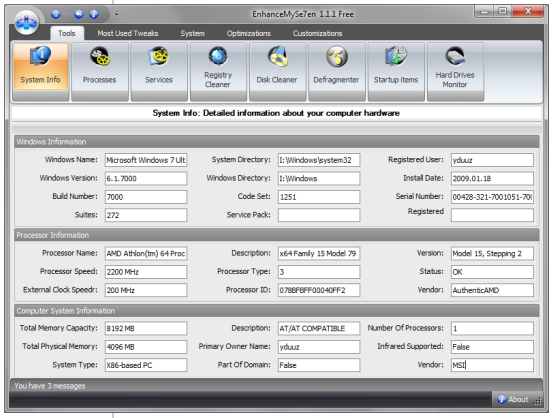
www.tweaknow.com/powerPack.html

Windows 7 Little Tweaker

windows7news.com/2009/05/27/customise-windows-7-with-windows-7-little-tweaker

The only one I can recommend at this time is **Windows 7 Manager** from Yamicsoft

www.yamicsoft.com/windows7manager



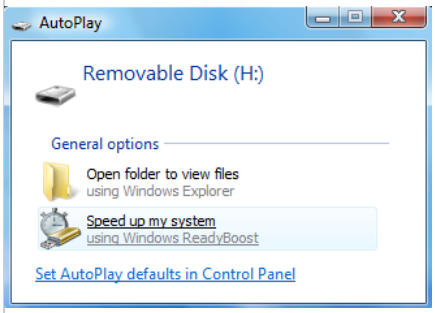
I have used Yamicsoft tweaking utilities myself before and found them to be very professionally written, sensibly laid out and stable.

READYBOOST

If you have a spare USB pen drive, you can use this to speed up your system.

Plug the drive in and when the autoplay window appears select *Speed up my system* to use the pen drive as additional memory.

It does this by using space on the pen drive to cache programs for faster loading.



QUICK TIP

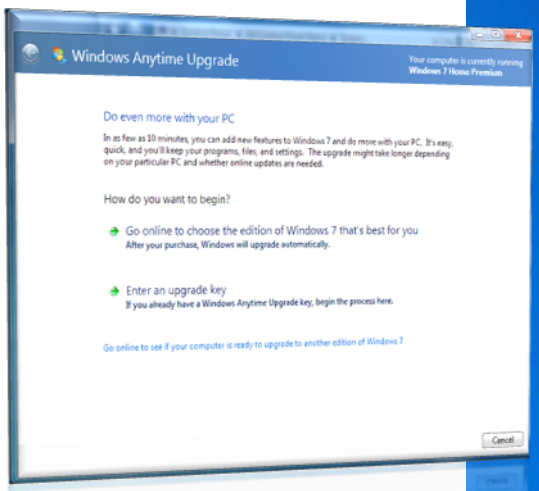
Be careful of tweaking software

Third-party tweaking software can be an excellent tool to help you get the best out of Windows 7.

Sometimes however, a badly written or incompatible tool can render your copy of Windows unusable.

You should always make sure you have a backup of your Windows 7 installation you can reinstall if there is a problem.

Part 15



Upgrading

The Windows 7 Power Users Guide

by Mike Halsey

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QUICK TIP

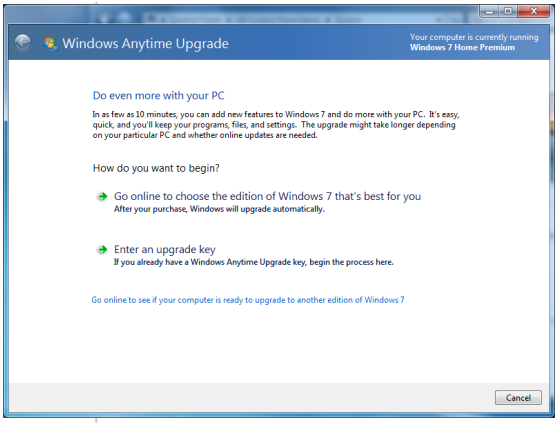
Cheap copies of windows 7

Normally from about three months after launch, which would put it at from February 2010, far cheaper copies of Windows are available from computer fairs and on the internet.

Major companies such as Amazon, Dabs and e-Buyer regularly sell full copies of windows for about £80 (UK).

It can be worth waiting to upgrade to Windows 7 to take advantage of the cheaper pricing.

WINDOWS ANYTIME UPGRADE



Owners of Windows 7 *Starter, Home Premium* or *Professional* can upgrade their copy of Windows 7 in-place to a better version using *Windows Anytime Upgrade*.
Accessed through the Start Menu this is a quick and simple way to buy a new product key and upgrade windows in as little as 10 minutes.

There's no need to reinstall Windows, everything is done within your current installation.

UPGRADING TO WINDOWS 8

When Windows 8 launches (it's due around 2012), it will have a *Windows Easy Transfer* utility on the disc, similar to the one bundled with Windows 7. This will make it easy to transfer your files and documents across.

You can use this program to transfer all your documents, email and settings to Windows 8 when it becomes available.

Bear in mind however that this backup will be extremely big if you have a lot of documents, photos and music. If you have an external hard disk you can back up to this is the best option.

Prices correct as of October 2009	US	UK	EU
Starter to Home Premium	$79.99	£69.99	€74.99
Starter to Professional	$114.99	£119.99	€184.99
Starter to Ultimate	$164.99	£139.99	€204.99
Home Premium to Professional	$89.99	£119.99	€179.99
Home Premium to Ultimate	$139.99	£124.99	€189.99
Professional to Ultimate	$129.99	£84.99	€134.99

UPGRADING YOUR MEMORY

The easiest and quickest way to upgrade your PC and improve performance is to install extra memory (RAM). Windows 7 and your programs run from memory so the more you have the more your PC can do. If your PC runs out of memory it uses space on the hard disk as *virtual memory* instead, which is much slower.

Memory cards sit behind your DVD/Blu-Ray drives in your computer and poke out vertically from the motherboard.

They should have a label on them telling you what type of memory they are. They will usually be **DDR**, **DDR2** or **DDR3** and this will be followed by a speed. The label above says *DDR PC2700* which you can match up with an online shop. It will also tell you how big the card is, in this case *1Gb*.

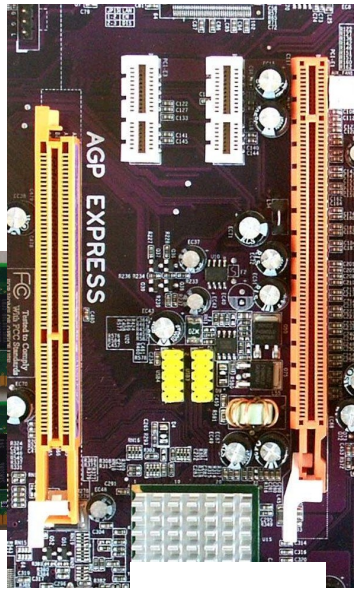
If you do not have this information, look for a model number you can search online for.

Always make sure the PC is switched off and you replace memory carefully, having discharged any static-electricity from yourself first.

UPGRADING YOUR GRAPHICS CARD

The other common way to upgrade a PC is to change the graphics card to enable you to play the latest games.

There are two types of interface, **AGP** and **PCI-Express**. In the image below the AGP socket is yellow on the left and the long orange socket is on the right.



Any compatible graphics card should work in your PC, though some may require additional power so you should check the power supply in your PC has a spare power cable, usually a small white one.

Again, always make sure you have discharged any static electricity from yourself and replace any parts in your computer carefully.

QUICK TIP

The 32 bit barrier

32 bit operating systems cannot 'see' a total amount of memory over 4Gb.

This includes the memory on your graphics card which is typically between 256Mb and 1Gb.

To take advantage of more than 4Gb of memory you will need to be running the 64 bit version of Windows 7.

If you do not already have this version running it will require a complete reinstall as upgrading is not possible.

You should be able to get a 64 bit install DVD from your PC supplier.

QUICK TIP

What else can you upgrade?

The next things you can upgrade in your PC is the processor.

Check the manual that came with your motherboard to see what *socket* the motherboard has, the *maximum speed* the motherboard can operate at and *what processors are supported* by it.

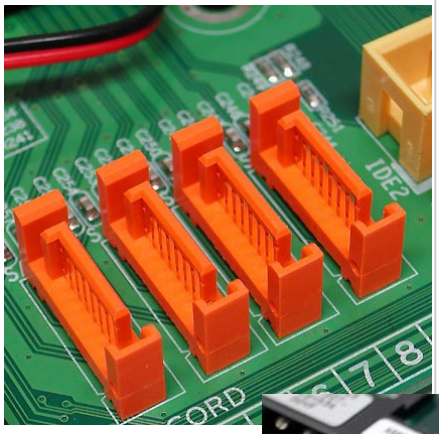
You may also need to buy a new heat sink for the new processor, though many come with one anyway.

You will finally need silicon thermal paste to go between the two to stop the processor from cracking.

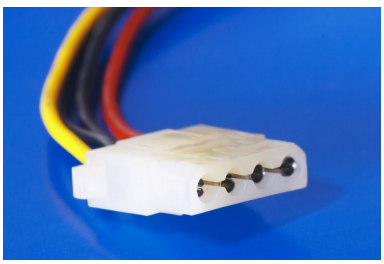
ADDING A HARD DISK

If you want more storage in your PC you can add an extra hard disk drive.

Modern drives will connect to your PC by a **SATA** cable. The ports on your motherboard will look the same as in the image below. First check that you have a free connector.



The back of the hard disk drive will have sockets for the power and data cables. The small plug is for data, this connects to your motherboard, the larger is for power.
If your power supply does not have a SATA power connector the hard disk should have a large **Molex** power socket you can use instead that is normally a white plug.



TIPS FOR UPGRADING YOUR PC

Always be careful when working inside your PC. Many of the components are very fragile and susceptible to very minor changes in electric charge.

You should always earth yourself. You can do this by leaving your PC connected to the main via a cable and, after removing the side panel, touching your fingers to unpainted metal on the power supply (the box the mains cable plugs into) and then with your other hand unplugging the power cable from the back of the PC.

Also be careful when handling new components as a static electric shock could short out fragile parts like memory and processors.

Never do PC maintenance on a carpet or another surface where static electricity can be generated. Always use a flat table-top or similar surface.

Part 16

Finishing

The Windows 7 Power Users Guide

by Mike Halsey

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Appendix A

Glossary

The Windows 7 Power Users Guide

by Mike Halsey

Glossary

32 BIT

An older type of computer processor capable of processing up to 32 bits of binary data (0 or 1) at a time. They can handle up to 4Gb of installed memory.

64 BIT

Much newer processor designs capable of handling 64 binary bits at a time and memory in excess of 4Gb. They offer significant stability and security benefits over 32 bit processors.

ADMINISTRATOR

The user mode in which software has full access to change / delete anything on your computer. Windows Vista by default runs in a *Standard User* mode to improve security.

ADSL

The most common type of broadband internet access. *Asynchronous Digital Subscriber Line* is the access provided by British Telecom and all other non-cable or satellite internet access providers.

AGP

An interface for graphics cards on a PC, has since been replaced by PCI-Express (*PCI-E*).

BOOTING

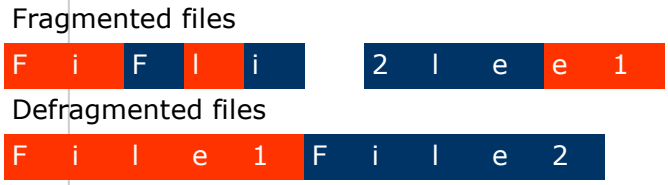
Starting up your computer to use Windows.

DEFRAGMENT

Files on your hard drive can become fragmented over time. This means that Windows looks for the next best place to save your file. However as you delete files this space might not be big enough for it. So it splits the file over the available free space.

Over time this can slow your PC down and cause your files to become corrupt.

Defragmenting your drive brings all the pieces of your files back together again.



DEP

Data Execution Prevention, a feature introduced in Windows XP Service Pack 2 to stop viruses. It can also prevent some games from running.

DRIVE LETTERS

Typically C: or A:, these are traditional ways to refer to the hard drives and removable storage in your PC.

DRIVER

Software that tells Windows how to communicate with installed hardware.

DUAL BOOTING

Running more than one operating on your PC. For instance having both Windows XP and Windows Vista installed and choosing when you switch the computer on, which one to boot into.

DUAL CORE

A processor that has two physical cores (processors) on the one chip. This enables faster operation in modern PCs and is the most common form of processor found in desktop machines.

DX11

DirectX 11 is the new 3D graphics engine for Windows Vista, it enables new effects in PC games.

GB

Gigabyte, A unit of measure. 1Gb = 1000Mb. 1Gb is typically enough space on a hard disk to store 200 MP3s or enough memory to allow Windows Vista to run properly.

HARD DRIVE / HARD DISK

A physical disk that sits inside your PC on which you store files and data in a non-volatile way (see *Memory*). Hard disks are measured in Gb units.

The disk operates with a series of spinning discs on platters read by a moving arm.

HOMEGROUP

A feature in Windows 7 that allows the sharing of documents, photos, pictures, music, video and printers between PCs running Windows 7 on a network.

ICAL

See *WebDav*, also the calendar program for Apple computers.

MB

Megabyte, A unit of measure. 1Mb is approximately the amount of storage you can fit on a floppy disk. To compare, a CD will store approximately 650Mb and a DVD will store 4.5Gb.

MEMORY (RAM)

Temporary (volatile) storage for files and programmes while your computer is running. The more memory your computer has, typically between 512Mb and 2Gb, the faster it can run because the less reading of the hard disk is required. Reading and writing to memory is faster than to a *hard disk*. Memory is measured in either Mb or Gb units.

The common types of memory are DDR2 and DDR3 which is newer and faster.

Glossary

OPERATING SYSTEM

Aka: *Windows 7*. The software that acts as an interface for your computer and that allows you to run software.

NETWORK

A collection of PCs at home or at work that can share files and data with each other.

NETWORKING

Connecting your computer to a network of others, either in your home or onwards to the internet.

PARTITION

Your hard drive can be split into separate *partitions*. Each of these becomes its own hard drive in the available space. For instance a 400Gb hard drive can be split into a 100Gb partition followed by two 250Gb partitions. This is useful for keeping your data and files away from your Windows installation.

PCI-E

PCI Express, the new format for graphics cards on a PC, replacing the older AGP standard.

PDF

Adobe's *Portable Document Format* is an excellent way to transfer documents between people, being operating system independent.

PHISHING

Emails that purport to be from Banks or websites such as Amazon or eBay that try and trick you into logging in to what you *think* is a genuine site to get your passwords and other details.

PROCESSOR

The silicon chip at the heart of your PC that does all the computational work.

QUAD CORE

A processor that has four physical cores on a single chip. Thus it can operate far faster than a single or dual core machine. These are commonly used for high-end tasks such as gaming, graphics intensive work, mathematical calculations and running a different operating system on each core (see *Virtual Machine*)

READYBOOST

A way of increasing the amount of memory in Windows Vista by plugging in a compatible USB pen drive.

REMOTE ASSISTANCE

A feature in Windows that allows remote control of your PC over the internet when you give permission, so that someone not in front of your PC can solve problems on it.

REMOTE DESKTOP

Remote control of other PCs on your home or office network.

SAVED SEARCHES

A search that you can save as a folder and that can be treated in the same way, but that holds no actual files and dynamically updates whenever it's opened.

SHADOW COPIES / PREVIOUS VERSIONS

Automatic backup of previous versions of files performed by Windows Vista. These previous copies of files can be restored by right clicking on the file and selecting its properties

SPAM

Unwanted, unsolicited email. Named after a pre-cooked tinned meat commonly eaten in the UK during the Second World War, and usually despised by all who ate it.

SPYWARE

Unwanted files that collect on your PC as you browse the internet. Many are innocuous but some can have malicious purposes. They are removed by software such as *Windows Defender*.

SSD

Solid-state disk. A hard drive with no moving parts where all the storage is silicon chip based. SSDs are far more robust and much faster than their mechanical alternatives.

SWAP FILE

If you do not have much memory, Windows creates a virtual memory file, called a *swap* file, that acts as memory but sits on the hard drive. Reading and writing to a hard disk is slower than reading and writing to *memory*.

SYSTEM RESTORE

A feature that takes a snapshot of your PC's operating system at certain periods so you can restore the system to that point in the event of a problem.

TAGS

Key words to describe the contents of your files, music or photographs.

TASKBAR

The bar that typically runs along the bottom of your screen containing the Windows *Orb Button*, icons and the clock.

UAC

User Account Control (UAC) is the security system in Windows Vista to guard against virus and other attack.

Glossary

UI

User Interface, a term to describe the look and feel of an application or Operating System.

USERS FOLDER

The location where your *Documents* and other personal files are stored. This can be moved away from the drive or partition on which you have installed Windows Vista.

VIRTUAL MACHINE

A copy of an operating system running within another operating system in a protected / separated environment. Commonly found in testing situations or with company servers.

VIRTUAL MEMORY

Additional memory kept as a hidden file on your hard drive for when you run out of physical memory. This is much slower than physical memory.

WEBDAV

A way to store calendars online so that they can be shared with other people.

WEP

The typical format for the security key used to protect access to wi-fi (wireless) networks.

WI-FI

Wireless internet access, also called 802.11. There are four speeds a, b, g and n with a being the slowest, n being the fastest and g currently being the most common.

WINDOWS KEY

The key between *CTRL* and *ALT* at the bottom left of your keyboard, also known as the *Windows Orb* (formerly the *Start Button*) on the taskbar.

WIMAX

The next generation wi-fi with a much broader range and greatly increased speed and capacity.

WINDOWS UPDATE / MICROSOFT UPDATE

A utility built into all versions of Windows to help keep the operating system up to date and free from security holes.

XPS

Microsoft's answer to Adobe's PDF format, the *Cross Platform Support* document format offers the same advantages that PDFs offer but is relatively new.

Appendix B

Keyboard Shortcuts

The Windows 7 Power Users Guide

by Mike Halsey

WINDOWS KEYBOARD SHORTCUTS

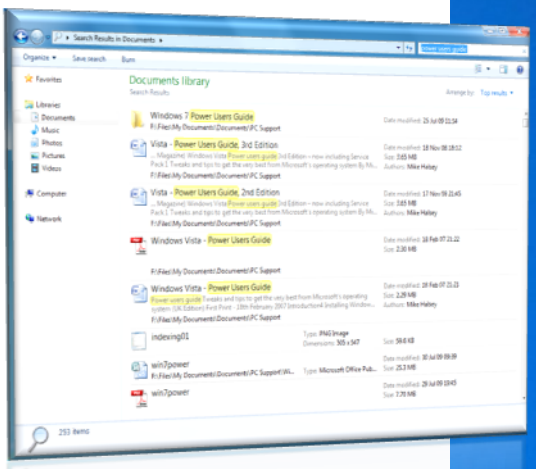
It's also possible to control many aspects of Windows 7 using just the keyboard. Below is a complete list of Keyboard controls, most of which will involve pressing the Windows key (start button on the keyboard).

[windows key] and [M] ..... Minimise all open windows
[windows key] and [Shift] and [M] ..... Undo all window minimisation
[windows key] and [D] ..... Toggle showing the desktop
[windows key] and [Up cursor key] ..... Maximise current window
[windows key] and [Down cursor key] ..... Minimise windows / Restore
[windows key] and [Left cursor key] ..... Dock current window to the left side
[windows key] and [Right cursor key] ..... Dock current window to the right side
[windows key] and [Shift and Up cursor key] ..... Maximize vertical size of window
[windows key] and [Shift and Down cursor key] ..... Restore vertical size
[windows key] and [Shift and Left cursor key] ..... Move window to left monitor
[windows key] and [Shift and Right cursor key] ..... Move window to right monitor
[windows key] and [Spacebar] ..... Aero desktop peek
[windows key] and [Home] ..... Minimise/maximise all inactive windows
[Alt] and [F4] ..... Close the active window
[Alt] and [Tab] ..... Switch to previous active window
[Alt] and [Esc] ..... Cycle through all open windows
[windows key] and [Tab] ..... Flip 3D
[Ctrl] and [windows key] and [Tab] ..... Persistent Flip 3D
[windows key] and [T] ..... Cycle through programs on taskbar
[windows key] and [Shift] and [T] ..... As above, but in reverse order
[windows key] and [R] ..... Opens Run dialog box
[windows key] and [P] ..... Show projector / multiple screen options
[windows key] and [G] ..... Show desktop gadgets
[windows key] and [L] ..... Lock computer
[windows key] and [X] ..... Mobility Centre
[windows key] and [+] ..... Zoom in
[windows key] and [-] ..... Zoom out
[windows key] and [=] ..... Magnifier
[Alt] and [P] ..... Show/hide Preview Pane
[Alt] and [Up] ..... Go up one level
[Alt] and [Left/Right cursor keys] ..... Back/forward

Additionally you can use the following keyboard and mouse combinations.

[Win] and [Any number (1, 2, .., 0)] ..... Open the corresponding taskbar pinned program
[Ctrl] and [Click a pinned taskbar icon] ..... Cycle through the program's open windows
[Shift] and [Click a pinned taskbar icon] ..... Run a new instance of the program
[Ctrl] and [Shift] and [Click a pinned taskbar icon] ..... New instance as an administrator
[Shift] and [Right-click on icon] ..... Show window menu
[Shift] and [Right-click on grouped icon] ..... Show window menu

Appendix C



Advanced Search

The Windows 7 Power Users Guide

by Mike Halsey

ADVANCED SEARCH QUERY SYNTAX

Author:name	Author:mike	Finds documents written and / or created by Mike
	Author:(mike halsey)	Find items containing the string Mike Halsey
	Author(mike or jed)	Finds items written / created by mike or jed
	Author:mike jed	Finds items written / created by mike and with jed anywhere in the document
From:name	From:mike	Finds items sent by mike
Before:date	Before:22/10/2009	Finds items created before 22/10/2009
After:date	After:22/10/2009	Finds items created after 22/10/2009
Has:attachment	Guide has:attachment	Finds items containing the word guide that have attachments
Is:attachment	Guide is:attachment	Finds attachments containing with word guide

When typing dates you can use several methods. The one above is an example but to search between a range of dates you can use **from:mike sent:27/03/08..22/10/09** as Windows search will recognise all relevant date formats.

In addition you can use the following terms...

Relative dates: *today, tomorrow, yesterday*

Multi-word relative dates: *week, next month, last week, past month, coming year*, or contracted as *thisweek, nextmonth, lastweek, pastmonth* and *comingyear*

Days: *Sunday, Monday ... Sunday*

Months: *January, February ... December*

Size:>50KB <70KB	Searches for files with a file size between 50Kb and 70Kb
Size:>=50KB <=70KB	Searches for files with a size between 50Kb and 70Kb including the end values
Size:50KB..70KB	The same as size:>=50KB <=70KB
Date:>27/3/08<22/10/09	Searches for dates between 27/3/08 and 22/10/09
Date:>=27/3/08<=22/10/09	Searches for dates between 27/3/08 and 22/10/09 including the end values
Date:27/3/08..22/10/09	The same as Date:>=27/3/08<=22/10/09

Searching by file type

To search for	Use	Example
Communications	Communications	Kind:communications
Contacts	Contact Person	Kind:contacts Kind:person
Email	Email	Kind:email
Instant messenger conversations	Im	Kind:im
Meetings	Meetings	Kind:meetings
Tasks	Tasks	Kind:tasks
Notes	Notes	Kind:notes
Documents	Docs	Kind:docs
Music	Music Song	Kind:music Kind:song
Pictures	Pics Pictures	Kind:pics Kind:pictures
Videos	Videos	Kind:videos
Folders	Folders	Kind:folders
Folder name	Fordername	Foldername:windows7
Programs	Programs	Kind:programs
Recorded TV	Tv	Kind:tv
Link	Link	Kind:link
Journal Entry	journal	Kind:journal

To search by file store

Store	Use	Example	Store	Use	Example
Files	File	Store:file	Outlook	Mapi	Store:mapi
Offline files	csc	Store:csc	Outlook Express	outlookexpress	Store:outlookexpress

Video

Property	Use	Example
Name	Name Subject	Name:paris Subject:holiday
Extension	Ext filext	Ext:mp3 Filext:wmv

Calendar

Property	Use	Example
Recurring	Isrecurring recurring	Isrecurring:true Recurring:false
Organiser	Organizer, by, from	Organizer:mike
Location	location	Location:sheffield

Searching by file type

Property	Use	Example
Title	Title, subject, about	Title:consultant
Status	Status	Status:active
Date	Date	Date:lastweek
Date modified	Datemodified, modified	Modified:yesterday
Importance	Importance, priority	Importance:high
Size	Size	Size:>50MB
Deleted	Deleted, isdeleted	Isdeleted:true
Is attachment	Isattachment	Isattachment:false
To	To, toname	To:johnsmith
Cc	Cc, ccname	Cc:david
Company	Company	Company:inspirare
Category	Category	Category:business
Keywords	Keywords	Keywords:sports
Album	Album	Album:greatest
File name	Filename, file	Filename:2009hits
Genre	Genre	Genre:jazz
Author	Author, by	Author:mike
Folder	Folder, under, path	Folder:windows7
Ext	Ext, fileext	Ext:.pdf
Tags	Tag, keyword	Tag:personal
Type	Type	Type:image

Properties for Documents

Property	Use	Example
Comments	Comments	Comments:excellent
Last saved by	Last saved by	Lastsavedby:mike
Document manager	Documentmanager	Documentmanager:mike
Revision number	Revisionnumber	Revisionnumber:5a
Date last printed	Datelastprinted	Datelastprinted:yesterday
Slide count	slides	Slides:>20

Properties for Music

Property	Use	Example
Bit rate	Bitrate	Bitrate:>150kbps
Artist	Artist, by	Artist:pink
Year	Year	Year:1977..1987 Year:>1980<1990
Album	Album	Album:"greatest hits"
Genre	Genre	Genre:rock
Lyrics	Lyrics	Lyrics:"I can make you happy"
Track	#, track	Track:14

Properties for Pictures

Property	Use	Example
Camera make	Cameramake	Cameramake:nikon
Camera model	Cameramodel	Cameramodel:D20
Dimensions	Dimensions	Dimensions:8x10
Orientation	Orientation	Orientation:landscape
Date taken	Taken Datetaken	Taken:last Datetaken:22/10/2008
Width	Width	Width:33
Height	Height	Height:66
Flash mode	Flashmode	Flashmode: no flash

Properties for Recorded TV

Property	Use	Example
Broadcast date	Broadcastdate	Broadcastdate:2007
Channel number	Channel	Channel:13
Closed captioning	Closedcaptioning	Closedcaptioning:true
Date released	Datereleased	Datereleased:2008
Episode name	episodename	Episodename:"best of"

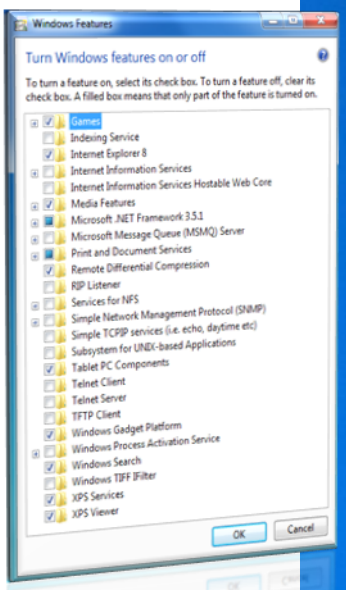
Properties for Contacts

Property	Use	Example
Job title	Jobtitle	Jobtitle:manager
IM address	Imaddress	Imaddress:sparky@inspirare.net
Assistant's phone	Assistansphone	Assistantsphone:01141234567
Assistant name	Assistantname	Assistantname:paula
Profession	Profession	Profession:banker
Nickname	Nickname	Nickname:bono
Spouse	Spouse	Spouse:louise
Business city	Businesscity	Businesscity:redmond
Business postal code	Businesspostalcode	Businesspostalcode:98052
Business home page	Businesshomepage	Businesshomepage:www.inspirare.net
Callback phone number	Callbacknumber	Callbacknumber:882-8080
Car phone	Carphone	Carphone:555-1212
Children	Children	Children:paul
First name	Firstname	Firstname:mike
Last name	Lastname	Lastname:halsey
Home fax	Homefax	Homefax:555-1212
Manager's name	Manager	Manager:steve
Pager	Pager	Pager:882-8080
Business phone	Businessphone	Businessphone:555-1212
Home phone	Homephone	Homephone:01141234567
Mobile phone	Mobilephone	Mobilephone:077712345678
Office	Officelocation	Officelocation:red/101
Anniversary	Anniversary	Anniversary:yesterday
Birthday	Birthday	Birthday:nextweek

Properties for Communications

Property	Use	Example
From	From, organizer	From:mike
Received	Received, sent	Sent:yesterday
Subject	Subject, title	Subject:book
Has attachment	has attachment, hasattachments	hasattachment:true
Attachments	Attachment, attachments	Attachment:win7power.pdf
Bcc	Bcc, bccname	Bcc:margaret
Bcc address	Bcc, bccaddress	Bccaddress:mike@inspirare.net
Cc address	Cc, ccaddress	Ccaddress:mike@inspirare.net
Follow-up flag	Flagstatus Flagststus:followup	Flagstatus:unflagged Flagstatus:completed
To address	Toaddress, to	Toaddress:mike@inspirare.net
Date due	Duedate, due	Due:22/10/2009
Read	Read, isread	Isread:true
Is completed	Iscompleted	Iscompleted:false
Incomplete	Iscomplete	Incomplete:false
Has flag	Hasflag, isflagged	Hasflag:true
Duration	Duration	Duration:>120

Appendix D



Windows Features

By version

The Windows 7 Power Users Guide

by Mike Halsey

USER INTERFACE

	ST	HP	PR	UL
Windows Basic				
Windows Standard				
Windows Aero				
Aero Peek				
Aero Snap				
Aero Shake				
Windows Flip				
Windows Flip 3D				
Live Taskbar Preview				
Jumplists				
Windows Search				

BUNDLED APPLICATIONS

	ST	HP	PR	UL
Internet Explorer 8	*			
Windows Desktop gadgets				
Basic Games				
Premium Games				
Calculator				
Paint				
Snipping Tool				
Sticky Notes				
Windows Journal				
Windows Fax and Scan				
Windows PowerShell				
WordPad				
XPS Viewer				

*pre-installed in some versions of Windows 7 and available via-download in others, dependant on whether your copy of Windows 7 came with a new PC or was purchased separately.

DIGITAL MEDIA

	ST	HP	PR	UL
Windows Photo Viewer				
Windows Media Player 12				
Windows Media Player Remote Media Experience				
Windows Media Centre				
Windows DVD Maker				
Device Stage				
Sync Centre				
MPEG-2 Decoding				
Dolby Digital Playback				
AAC and H.264 Decoding				
DVD Playback				
TV Tuners Supported		4	4	4

SECURITY

	ST	HP	PR	UL
Action Centre				
Windows Defender				
Windows Firewall				
IE 8 Protected Mode and DEP Support				
User Account Control				
Windows Update				
Fast User Switching				
Parental Controls				

MOBILITY

	ST	HP	PR	UL
Windows Mobility Centre		*		
Windows Sideshow				
Sync Centre				
Tablet PC				
Multi-Touch Support				

*No presentation mode

PERFORMANCE

	ST	HP	PR	UL
Windows ReadyDrive				
Windows ReadyBoost				
SuperFetch				
64-bit Processor Support				
Physical Processors Supported	1	2	2	2
Processor Core Support	Unlimited			
Maximum RAM (32-bit)	4Gb*	4Gb*	4Gb*	4Gb*
Maximum RAM (64-bit)		16Gb	192Gb	192Gb

*This includes memory on any installed AGP or PCI-Express Graphics card(s).

RELIABILITY

	ST	HP	PR	UL
Windows Backup				
System Image				
Backup to Network				
Encrypting File System				
Bitlocker				
Bitlocker to Go				
Automatic Hard Disk Defragmenting				
Previous Versions (Shadow Copies)				
Create and Attach Virtual Hard Disks				

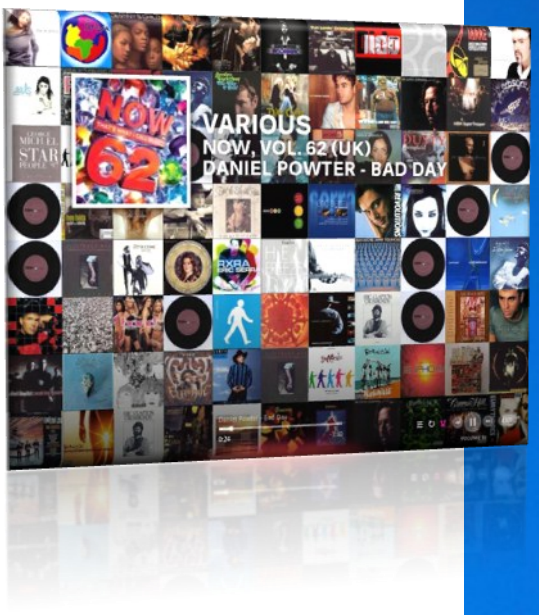
NETWORKING

	ST	HP	PR	UL
Network and Sharing Centre				
Homegroup	Join			
Improved Power Management				
Connect to a Projector				
Remote Desktop				
Remote Desktop Host				
IIS Web Server				
RSS Support				
Internet Connection Sharing				
Network Bridge				
Offline Files				

ENTERPRISE AND BUSINESS FEATURES

	ST	HP	PR	UL
Join a domain				
XP Mode (via download)				
Applocker				
Boot from Virtual Hard Disk				
BranchCache				
DirectAccess				
Federated Search				
Multi-lingual User Interface Language Packs				
Location-Aware Printing				
Subsystem for UNIX Applications				

Appendix E



Downloads

The Windows 7 Power Users Guide

by Mike Halsey

ANTI-VIRUS SOFTWARE

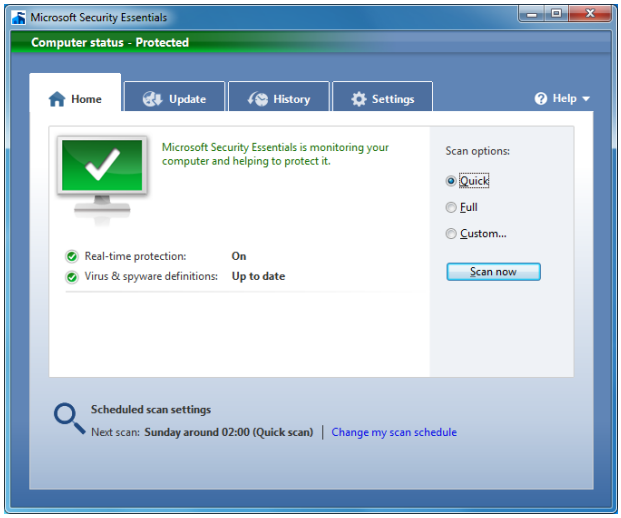
My choices for the best anti-virus downloads are.

MICROSOFT SECURITY ESSENTIALS

A *free* basic anti-virus solution that has advantages over the competition including only scanning your PC when you're not using it.

It uses Microsoft's award-winning corporate anti-virus engine.

www.microsoft.com/security_essential

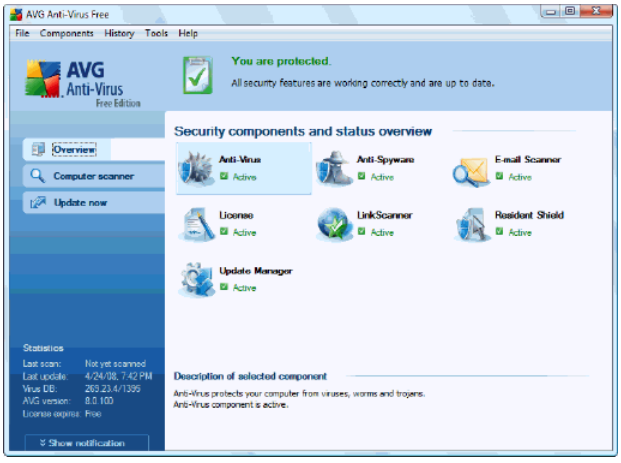


AVG ANTI-VIRUS

For years the anti-virus of choice for internet professionals.

AVG comes in both a *free* version and a full security suite including firewall and spam protection

www.avg.com

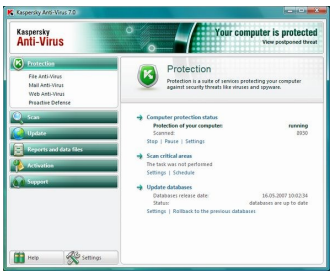


KASPERSKY

One of the longest-standing anti-virus vendors.

Kaspersky is either a paid for anti-virus or a security suite.

www.kaspersky.com



AVIRA

A relative newcomer to anti-virus but the Avira security suite is an excellent all-rounder with a fantastic record.

www.avira.com

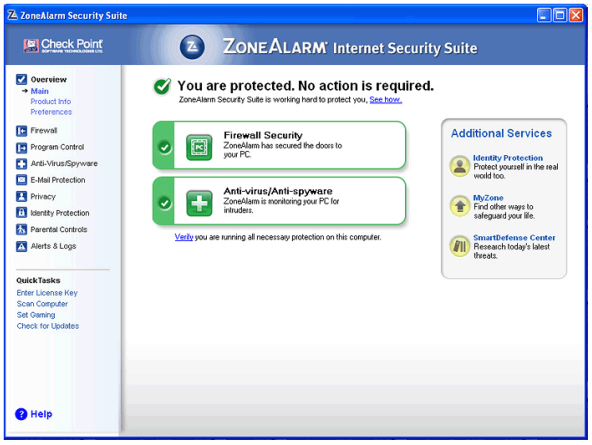
FIREWALLS

My choices for the best firewall downloads are.

ZONEALARM

Available as both a *free* basic firewall and a full security suite, ZoneAlarm is one of the best and longest-standing firewalls.

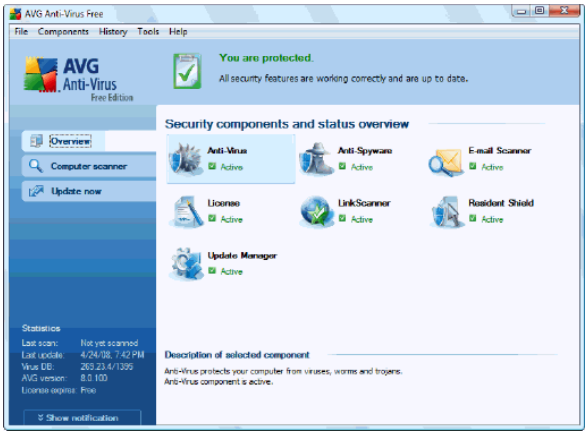
www.zonealarm.com



AVG SECURITY SUITE

AVG provides an excellent firewall as part of its paid for security suite.

www.avg.com



COMODO

Comodo offers an excellent free firewall as well as an upgraded paid-for edition.

www.comodo.com

AVIRA

A relative newcomer but the Avira security suite is an excellent all-rounder with a fantastic record.

www.avira.com

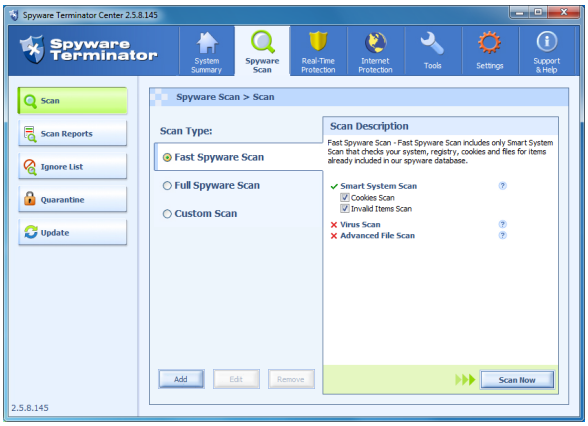
ANTI-SPYWARE SOFTWARE

My choices for the best anti-spyware downloads are.

SPYWARE TERMINATOR

Completely *free* but a little complex in parts. Should be installed by an experienced user but fire-and-forget after that time. Spyware Terminator provides excellent spyware and trojan protection.

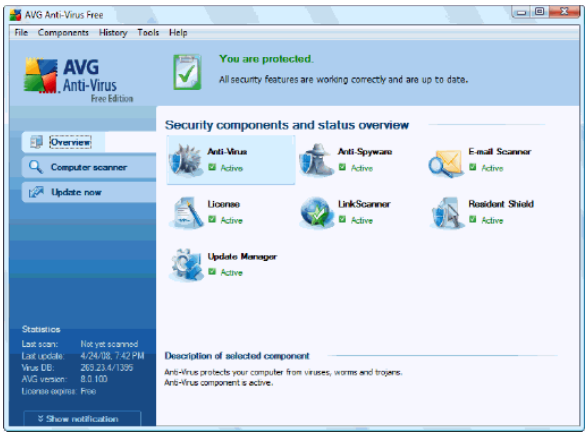
www.spywareterminator.com



AVG SECURITY SUITE

AVG provides an excellent anti-spyware package as part of its paid for security suite.

www.avg.com



KASPERSKY

Kaspersky offers an excellent anti-spyware package as part of it's paid for security suite.

www.kaspersky.com

AVIRA

A relative newcomer but the Avira security suite is an excellent all-rounder with a fantastic record.

www.avira.com

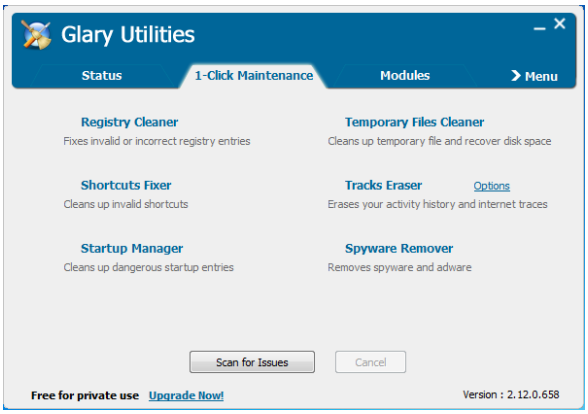
PC MAINTENANCE SOFTWARE

My choices for the best PC maintenance downloads are.

GLARY UTILITIES

One of the best and simplest to use Windows optimisations tools available, and even better it's completely *free*.

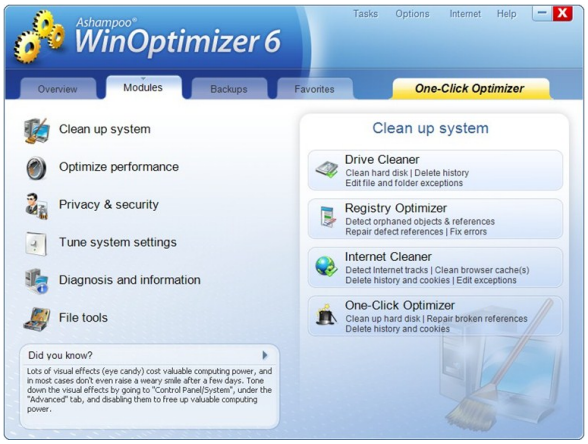
www.glarysoft.com



ASHAMPOO WINOPTIMISER

A paid for package but well worth the small price. An excellent Windows optimisation tool.

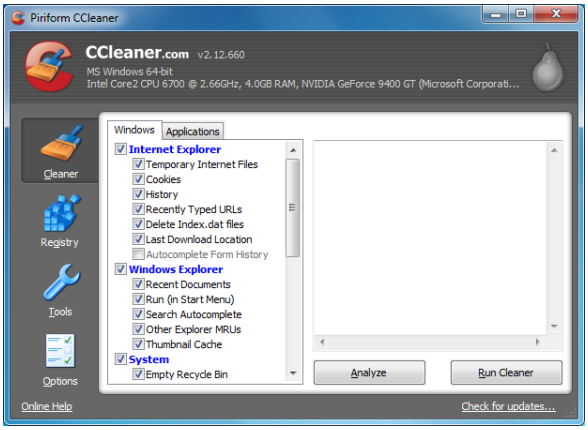
www.ashampoo.com



CCLEANER

Another *free* Windows optimisation utility and an excellent one at that, but only recommended for more advanced users.

www.ccleaner.com



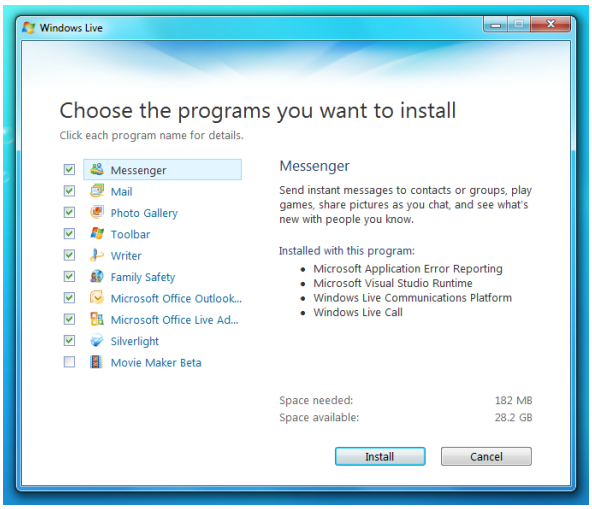
OTHER ESSENTIAL SOFTWARE

My choices for the best software you can't do without are.

WINDOWS LIVE SUITE

Many of the programs we were used to with previous versions of Windows were removed in Windows 7 and clearly for the better. Now integrated into Windows Live Suite, Mail, Photo Gallery and much more are the first thing I install in Windows 7.

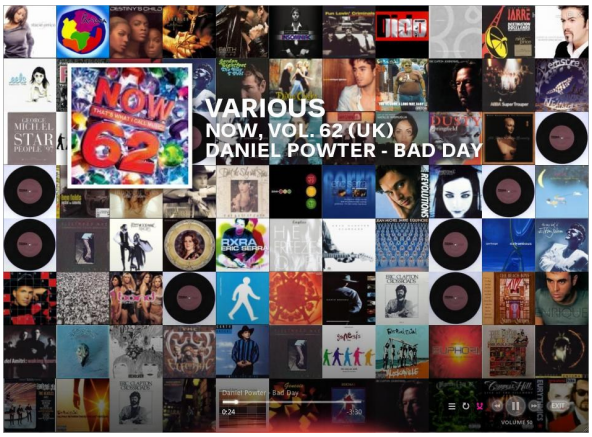
download.live.com



ZUNE PLAYER

Far superior to any other media player on the market today, and you don't have to own a Microsoft Zune MP3 player to use the software.

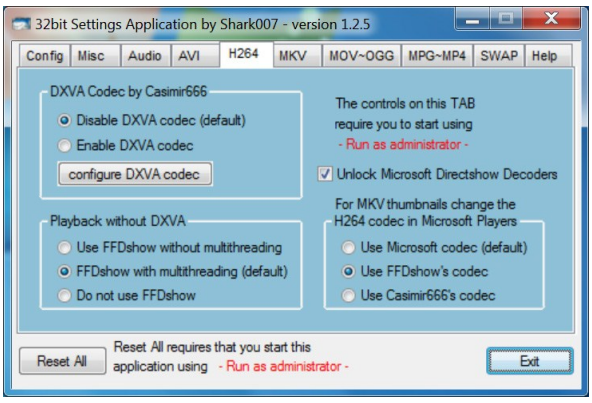
www.zune.net/software



SHARK007 CODECS

A complete codec package for Windows 7, ensuring you can listen to and view the widest range of music and video files.

www.shark007.net



ESSENTIAL WEBSITES

My choices for the best websites to bookmark are.

MICROSOFT FIX IT

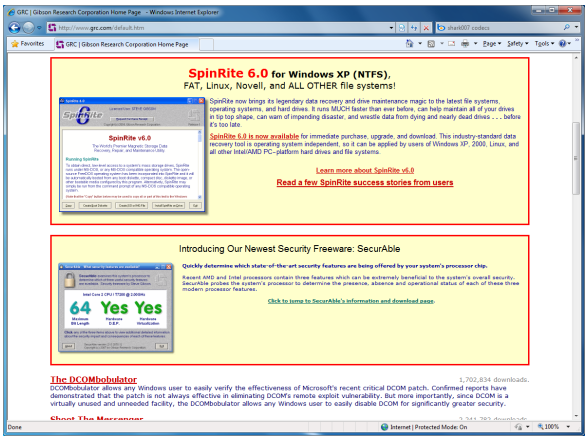
A new service from Microsoft, helping you diagnose and fix common Windows problems, with downloadable fixes and patches. This is an essential bookmark for any Windows user.

support.microsoft.com/fixit

GIBSON RESEARCH

The website of one of the internet's foremost security experts. A goldmine of free tools and utilities for finding and fixing security problems on your PC.

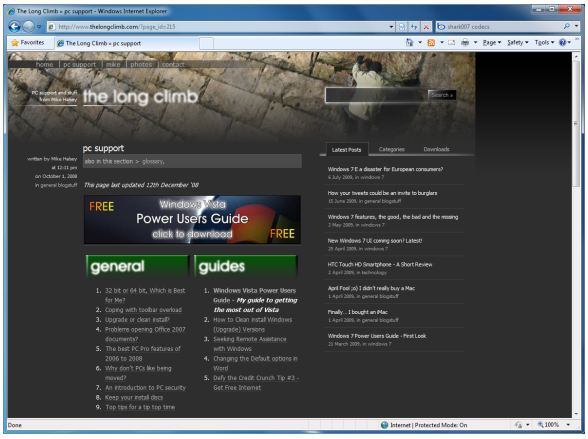
www.grc.com



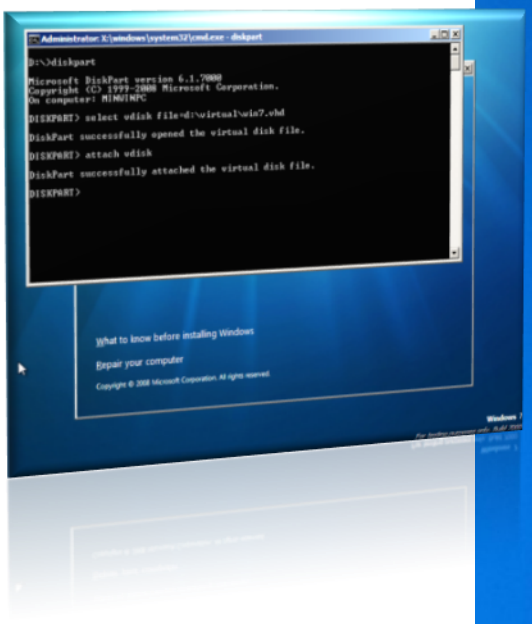
THE LONG CLIMB

My own website with a comprehensive PC support section along with lots more.

www.thelongclimb.com



Appendix F



Virtual Hard Disks

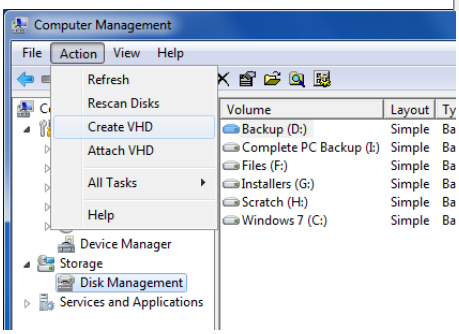
The Windows 7 Power Users Guide

by Mike Halsey

WHAT IS VIRTUALISATION?

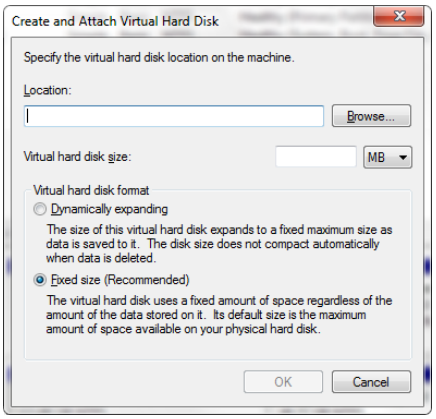
Virtualisation is the ability run create and run a virtual disk, an entire hard disk contained within the file, similar to the way files can be stored within a ZIP file for emailing.

A copy of Windows can be installed inside this virtual hard disk, protecting it from the outside world and making it easy to restore from a backup if something goes wrong with it.



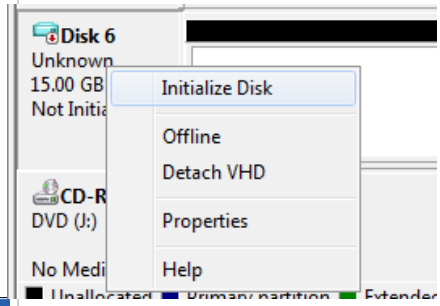
CREATING A VIRTUAL HARD DISK

Windows 7 allows you to create a virtual hard disk and mount it as though it were another drive on your PC. Open *Computer Management* from the Start Menu and from the *Action* menu select *Create VHD*.



A dialog will pop up in which you should specify where on your computer you want this stored and what size it should be.

You will need to initialise this disk which you can do by right-clicking on it.



You can also attach a virtual hard disk *.VHD file created previously or on another copy of Windows 7 from the *Action* menu in the *Computer Management* console.

CREATING A BOOTABLE VIRTUAL WINDOWS

You can install a bootable copy of Windows 7 into this partition. This can be useful in certain circumstances, for instance if you want a safe copy of Windows to use as a test environment.

The full instruction for this are out of the scope for this book, however there is an excellent guide online from Microsoft on how to set this feature up.

http://blogs.msdn.com/cesardelatorre/archive/2009/01/11/windows-7-natively-booting-from-a-vhd-virtual-pc-image-file.aspx

QUICK TIP

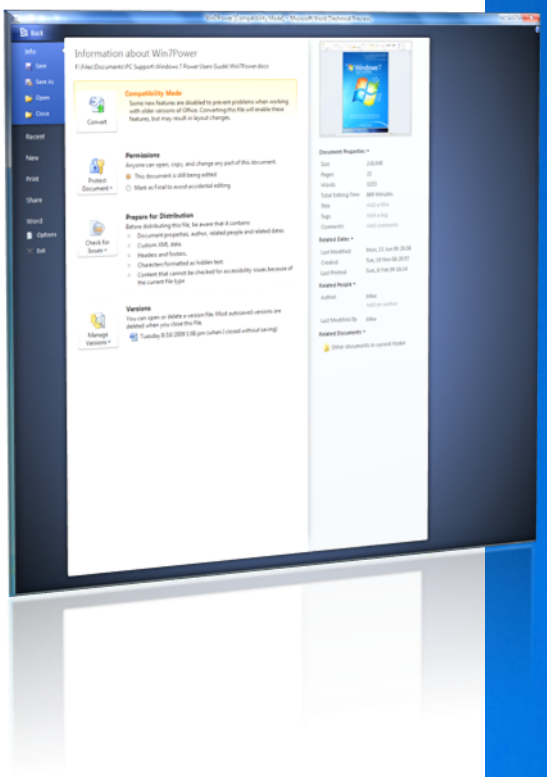
What is Virtualisation?

When you have a ZIP file on your PC and open it, it appears to be a folder containing other files. IT is though just a file containing those other files in a compressed form.

A virtual hard disk is the same thing, a file on your PC containing other files. The difference is that, rather than appear as a folder, a Virtual Hard Disk appears as an extra hard disk on your computer.

This means you can install an operating system and programs on it as well as store files and documents on it.

Appendix G



Office 2010

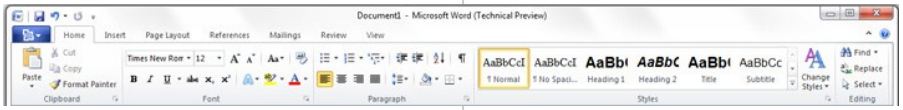
Quick Guide

The Windows 7 Power Users Guide

by Mike Halsey

THE RIBBON

Microsoft Office 2007 caused some considerable debate because of the inclusion of the new *ribbon* interface. This was introduced because the standard menu system had become unwieldy, and unable to cope with the sheer number of features within the Office programs.



With Office 2010, the ribbon has been extended to all of the Office suite and has changed slightly from it's previous version.

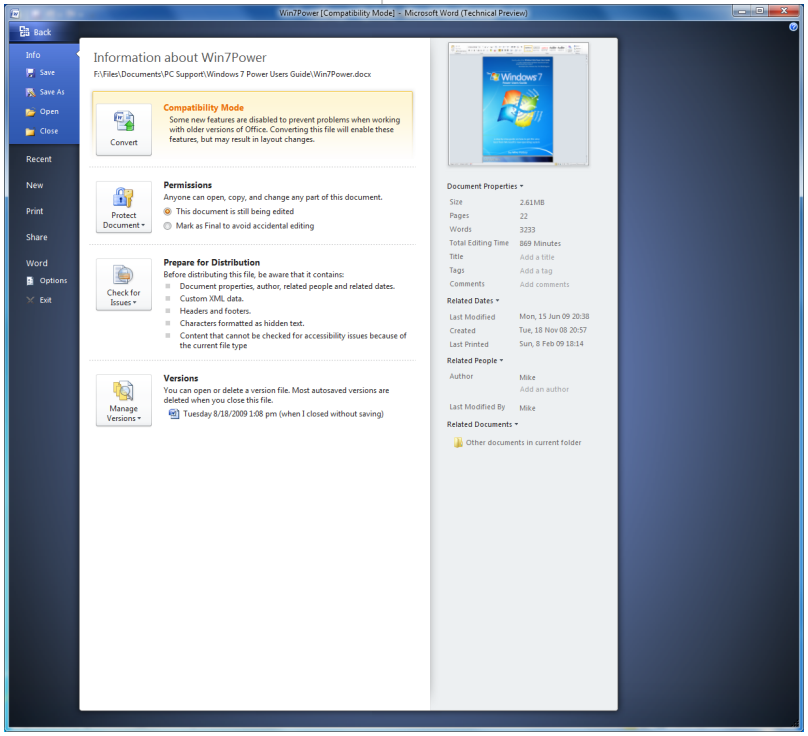
The oft-confusing Office Orb has been removed and replaced by a more prominent coloured Office tab at the far left of the ribbon. Also at the far right, next to the help button is a quick button that will minimise and maximise the ribbon for you.

BACKSTAGE

Clicking the new coloured Office tab will bring up a new feature called *backstage*. From here you can open and save files, print and print-preview them and perform additional actions such as changing the default options.

CUSTOMISE THE RIBBON

Click the coloured Office button and then the *options* link on the left side of the *backstage* window and you will see in the options controls for customising the ribbon, including creating custom tabs for yourself.



QUICK TIP

Customise the Ribbon

Many people find the Ribbon in Office confusing.

Office 2010 allows you to customise the ribbon, see left for instructions on how to do this.

You can add your own tabs and add or remove features from the existing ones.

You can create your own tabs with the Office features you use most regularly.

QUICK TIP

Office Online

Anyone familiar with *Google Docs* will know what to expect with *Office Online* immediately.

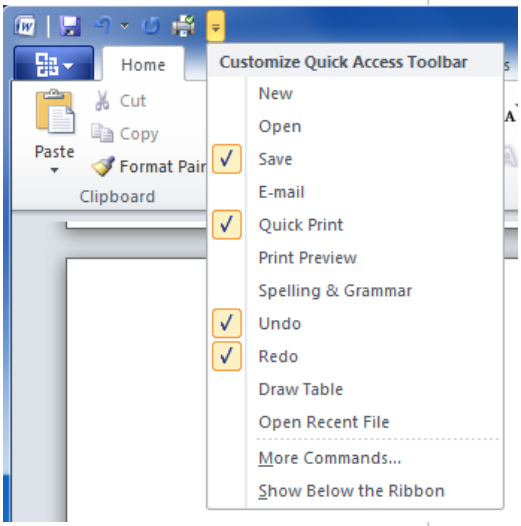
It is a cut down version of the main office programs, *Word, Excel* and *PowerPoint* that you can access and use within a web browser without having to have a copy of Microsoft Office installed.

This can make it very accessible when you're away from your PC.

You can also store your files on the *Office Online* service meaning you will be able to access them wherever you are, whenever you need to.

QUICK ACCESS TOOLBAR

At the very top left of the window is the *quick access toolbar*. This section contains common functions you can access with a single click. You can add new items to this toolbar by clicking the down arrow to the right it and selecting items from the drop down list that appears.



LANGUAGES

Office 2010 does a better job than ever before of recognising your language and only installing the dictionary for that.

You can access *Languages* from *Options* in the *Backstage* screen if you need to change this however.

FILE FORMATS

By default, Microsoft Office 2010 wants to save your files in the *.docx, *.xlsx format. This format cannot be read on Office 2003 and earlier without the *Office 2007 File Format Compatibility Pack* which is available as a free download from the Microsoft website.

You also have the choice of saving documents in the more compatible *.doc and *.xls formats and also the *.odf open document format.

OFFICE ONLINE

Microsoft *Office Online* is a new Service to allow you to create, work on and store Office documents in the cloud that you can work on in a web browser. You do not need to own or have installed a copy of Microsoft Office to use this service, just a live internet connection.

Appendix H

The Author

The Windows 7 Power Users Guide

by Mike Halsey

ABOUT MIKE HALSEY

Mike Halsey grew up in Camberley, Surrey (UK). He is currently based in Sheffield.

Mike has been working in IT Support for years. He began supporting individuals in their homes and micro-businesses and moved on to blue-chip clients including major UK banks NatWest and Royal Bank of Scotland and the supermarket chain Tesco.

He has been a beta-tester for Microsoft since the launch of Windows XP.

Before that Mike spent several years' self-employed providing websites, adverts and other promotional materials for micro-business and SMEs in the UK and as far afield as Amsterdam and China.

He also spent some years touring the UK as a singer.

He is now working as a teacher for a South Yorkshire training company teaching English and Mathematics as well as maintaining their e-learning system.

He is a keen photographer with a particular interest in modern architecture. His photographic, PC support site and blog is at

www.TheLongClimb.com

He was one of only a very few photographers ever allowed into the Millennium Dome in London, and maintains the only full photo library of the empty dome on the internet.

He is an editor for *windows7news.com* and *windows8news.com* for whom he has been writing since May 2009.

Mike is the author of the **Windows Vista Power Users Guide**, that he initially wrote to stop his mother and friends asking him dumb questions when he was down the pub.

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