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ULTIMATE GUIDE TO

Windows 7

All the tips, tricks & fixes you need

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Vista and XP

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web and email

Set up a home
network

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music and view
photos

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INSIDE ►

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Issue 8
September 2010

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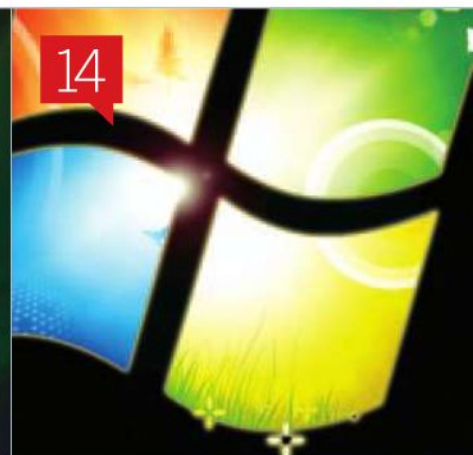
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Jargon free!

You'll find Jargon Buster columns throughout this guide, as well as a glossary of terms on page 97

JARGON BUSTER

AAC A compressed format for digital music.

DRM Digital Rights Management. Software that protects media files from illegal copying.

Download Transferring files onto your PC directly from the Internet.

Computeractive

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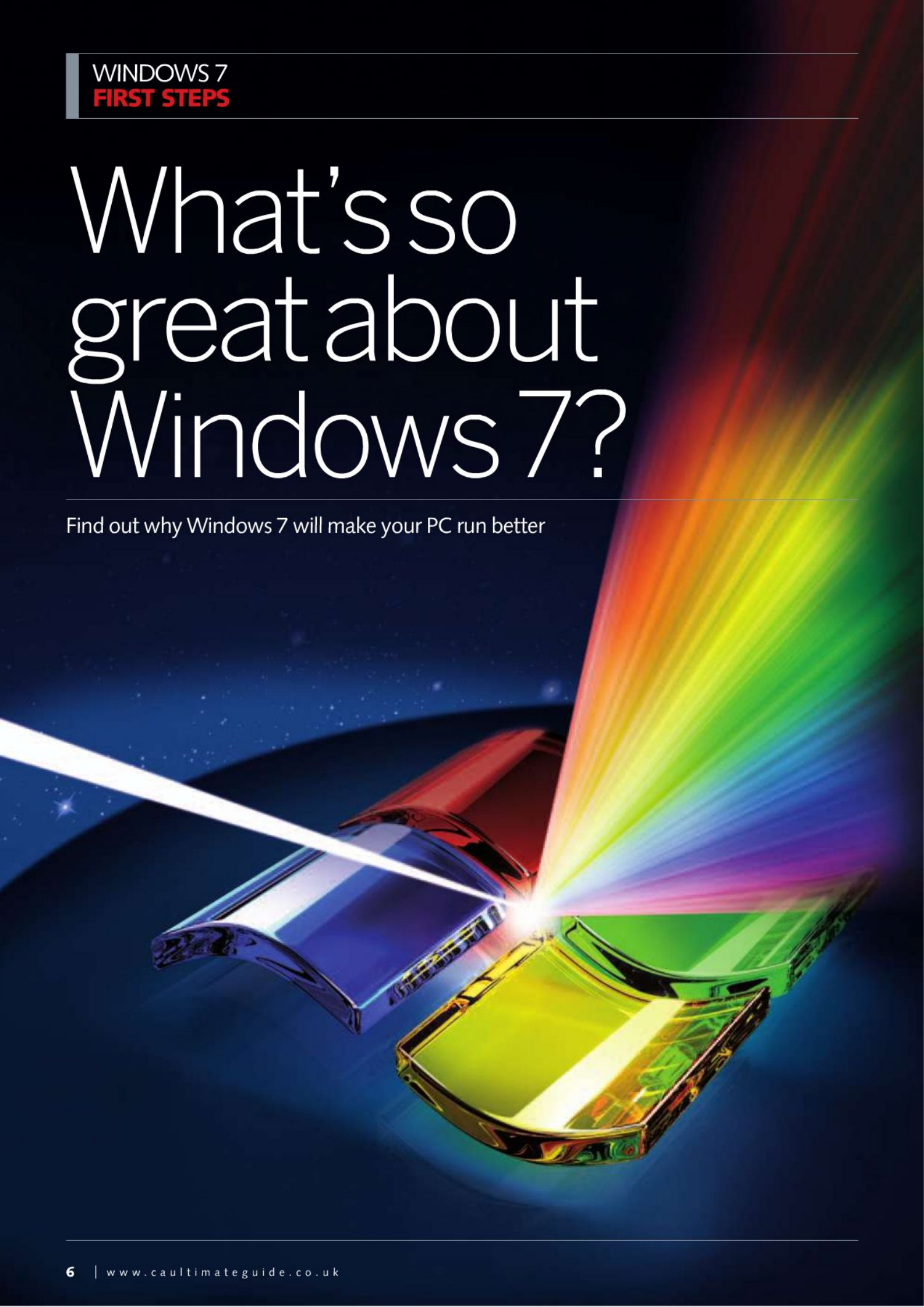
Our free CD includes two great Windows 7 security programs, plus plenty of other essentials.

TURN TO PAGE 91



What's so great about Windows 7?

Find out why Windows 7 will make your PC run better





▲ Windows 7's Taskbar is the biggest and most obvious change in this version of the operating system

Windows 7 is the latest version in Microsoft's long-running series of operating systems. But more than that, it's also the best ever. This is great news if you're buying or have just bought a new PC, as you'll get the latest and best version installed and ready to use, but it's also good for those with older computers, as upgrading can give your PC a new lease of life and bring it up to date with the latest tools and technologies.

Later on in this Ultimate Guide, we'll explain in detail how to use Windows 7, as well as provide instructions on how to upgrade from Windows XP and Vista. But first we'll take a whistlestop tour of Windows 7 to see exactly why it's worth your time.

So what's new?

Windows has been around for so long that, for many of us, the idea of using a computer and of using Windows are one and the same. After all, Windows 1 first arrived in 1985 – long before many people had a home PC. And, although the earliest versions of Windows were quite basic, the way we start programs, work with files and access the internet hasn't really changed much since Windows 95, which was released over a decade ago. So what's so great about Windows 7, and what can it do that older versions cannot?

Even when compared to the previous version, Windows Vista, the list of new tools and features added in Windows 7 is amazingly long. Most fall into one of two main groups: new features designed to make everyday tasks easier and quicker to perform, and those designed to take advantage of today's newer, more powerful PCs.

Taken to task

Many of the changes and additions to Windows 7 serve one simple purpose: making your PC simpler and easier to use. Some of these changes are significant, so you'll see them every time you switch on the computer, while others are so subtle you might not even notice them. Together, though, they make Windows 7 the easiest version to use.

The biggest and most obvious change in Windows 7 is its completely redesigned **Taskbar**. The Taskbar, which runs along the bottom of the screen showing which programs are currently running and allowing you to switch between them, first appeared in Windows 95 as a drab grey bar and, other than a splash of colour in Windows XP and a slightly transparent look in Vista, hadn't changed since.

In Windows 7, however, the Taskbar has been completely overhauled. It's still

JARGON BUSTER

Aero The desktop included with some versions of Vista.

Anti-virus Software that detects, repairs, cleans or removes virus-infected files from a computer.

Driver A program that allows Windows to communicate with a peripheral device.

Gadgets Small programs that run on the Windows desktop.

GB Gigabyte. A measurement of storage capacity, usually for hard disks. 1GB is equal to 1,024MB (megabytes).

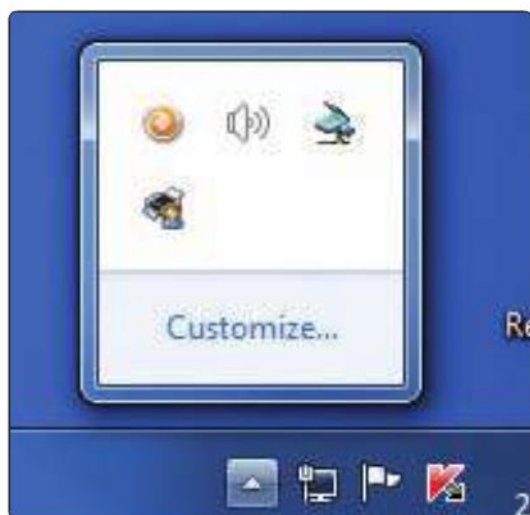
GHz Gigahertz. A thousand megahertz. A measure of how fast the processor in your computer works.

Hard disk A high-capacity disk fitted into almost all PCs and used to store both applications and files.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

TOP 10 REASONS TO UPGRADE TO WINDOWS 7

1. Thanks to the new Taskbar, running and managing programs is easier than ever
2. The new Libraries tool means you can manage thousands of files quickly and easily – wherever they're stored
3. Aero Snap helps you get in control of windows on screen – after trying it, you'll wonder how you worked without it
4. It's ready to play just about any media file, and the built-in Windows Media Center can even record TV
5. It starts up fast and connects to the internet quickly, saving you time
6. It runs quickly – even on low-powered netbook computers that struggled to run Vista
7. It has the best version of Windows search ever, so finding programs, files and options takes just a second
8. The updated Aero interface looks great, and is easy to customise
9. The new operating system is completely reliable, but also includes comprehensive backup and troubleshooting tools in case anything does go wrong
10. Upgrading from Windows XP or Vista is inexpensive and simple – and we'll guide you through the process



▲Any program can be 'pinned' to the Taskbar for easier access

transparent, but gone are the long, oblong buttons that quickly filled up the bar if you had more than a few programs running. Instead, each running program is represented by a large, almost square button that contains only its icon. This makes it far less cluttered, especially on the smaller screen of a laptop computer.

On older versions of Windows, opening two windows in a single program would normally produce two taskbar buttons: in Windows 7 the

two are neatly stacked on top of one another. Hovering the mouse over a button for a second causes a small image of the window, or windows, to pop up. Clicking one brings it to the front, ready to use.

Pinned in place

In older versions of Windows it was possible to place a few commonly used programs in a 'Quick Launch' toolbar next to the Start button, but this always looked rather out of place. In Windows 7, any program can be 'pinned' to the taskbar, where it appears as a fully-sized icon next to the Start button. This makes it easier than ever for you to keep frequently used programs – such as your web browser, email program and office tools – close at hand. Better still, Windows 7 won't allow anyone but you to alter the programs that are kept here: unlike the Quick Launch, programs cannot pin themselves to the Taskbar when you install or update them.

There's also a new way to access regularly or recently used documents or features of any

program in the Taskbar. Right-clicking on an icon opens a special pop-up menu called a **Jump List**, allowing you to quickly choose from handy options or recent files – the Firefox jump list gives you links to recently visited websites, for example.

Taking notice

Another significant change in Windows 7 can be found to the right of the Taskbar in the **Notification Area** next to the clock. This area in previous versions of Windows was designed to be used by programs that need to run all the time, but rarely attract your attention, such as an **anti-virus** tool. The problem was that dozens of programs insisted on hiding there, and soon the list of icons got out of control. Windows 7 takes back control over this area, replacing the dozens of pop-up messages with a simple flag icon that you can click to see any current warnings and gives you the option to choose which, if any, icons you want to see there.

The Start Menu itself has been given a subtle overhaul, with an improved instant search tool that makes it easy to find programs in seconds and one-click access to recent documents using the same Jump Lists found in the Taskbar.

A completely new Devices and Printers option makes it easy to manage all the **peripherals** you connect to your PC – from printers and scanners to digital cameras and hard disks. You'll find more information on managing your devices starting on page 52.

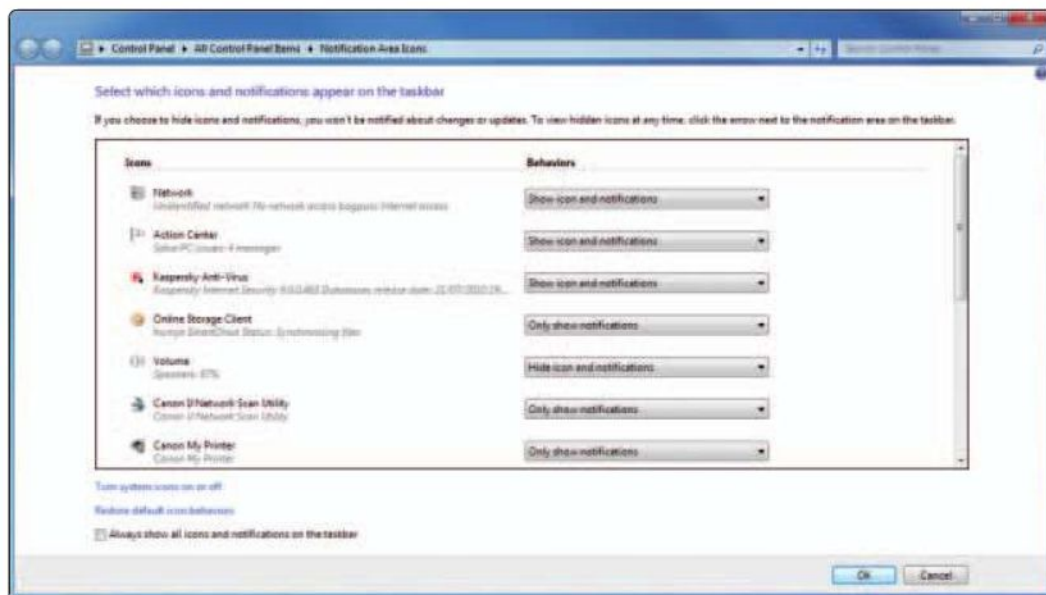
Window shopping

The Taskbar aside, Windows 7's desktop works in much the same way as previous versions, although there are a few nice cosmetic changes – for example, it's now easy to show a slideshow of photos or images as the desktop wallpaper, rather than just one.

However, there are some useful changes to the way that the windows themselves work. Windows has traditionally used just three buttons to control windows on screen, all found in the top-right corner: one to close the window; one to minimise it; and one to switch between normal and full-screen modes. This worked well on computers built 15 years ago, but on today's huge widescreen monitors many of us want to have several windows open at once, side by side.

Windows 7 makes managing windows easy thanks to a clever new tool

▼Windows 7 has taken back control of the Notification Area



called **Aero Snap** – simply click a window, drag it to one side of the screen and it will instantly snap to fill that half of the display. Similar controls allow you to quickly fill the screen, or make a window snap to the top and bottom of the display but not the sides. It's so handy, you'll wonder how you worked without it.

Also on the desktop, Windows 7 includes new and improved support for **Gadgets** – small programs that run directly on the desktop. Windows Vista supported Gadgets in a limited way, but in Windows 7 they can be placed anywhere on the desktop, giving you instant access to handy information. You'll find our complete guide to the Windows 7 desktop starting on page 26.

Getting organised

Another area in which Windows 7 has been redesigned to make things simpler is file management. Back when Windows 95 was launched, computer hard disks were tiny – 500MB was a common size – and the idea of storing a library of music or video files on a PC was ludicrous. Today, however, it's not uncommon to store thousands of photos on a computer, along with music files, videos, documents and files downloaded from the web, so keeping them all in order can be a nightmare.

Windows XP and Vista used special folders within My Documents that were designed for a type of file – My Music, for example – but this didn't help much if you had files stored on an external hard disk or home network. Windows 7 completely revolutionises the way files are organised to make it much simpler.

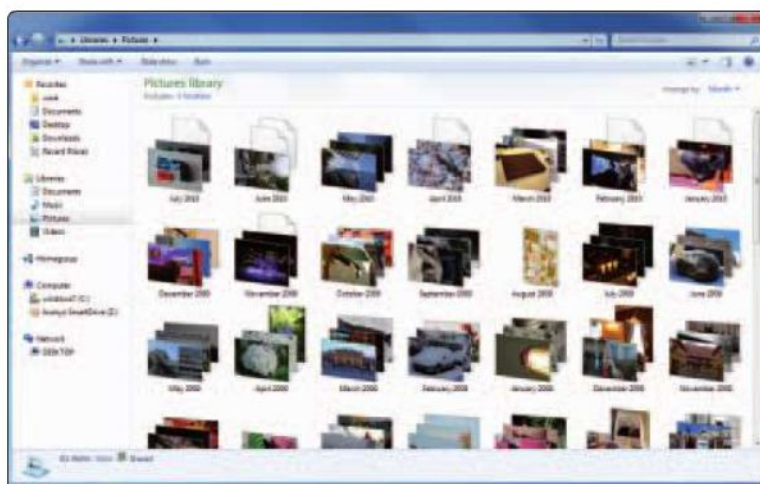
Rather than simple folders, Windows 7 uses Libraries to organise your documents, music, videos, photos and more. A Library is a collection of files that are shown together, even if they are stored in different locations, so your Pictures library could show photographs from your hard disk, an external

disk and a network storage device all in one place. Libraries can also be sorted, so with just a few clicks you can find all the photos taken in July of last year, for example, no matter where they might be stored. For more information on how to get your files organised in Windows 7, turn to page 30.

Media mogul

So far we've concentrated on the areas in which Windows 7 has been improved to make it faster and easier to use, but it's also packed full of handy features that allow you to get the most out of the latest computer technologies.

One big change is the Windows Media Center. Over the past decade, PCs have been transformed from devices used mainly for work to ones that are used to store, create and play media files of all types, and when it comes to entertainment, Windows 7 is the



most capable version of the operating system ever. Windows Media Center was introduced as a special version of Windows XP, then updated in some editions of Vista. In Windows 7 it has been completely overhauled and is included in every edition other than the cut-down Starter sold on some netbooks.

In Windows 7, Media Center is ready to play just about any photo, music or video file, as support for more video formats than ever is included in the box. It can play DVDs, of course, but plug in a **TV tuner** and it can do much more than that. With no extra software required, it will turn your PC into a Freeview recorder complete with a full Electronic

JARGON BUSTER

Jump List A quick menu providing options specific to a program on the Taskbar.

MB Megabytes. A measurement of storage capacity, usually for computer memory. 1MB is equal to 1,024KB (kilobytes).

Memory The computer's temporary storage area, measured in megabytes (MB).

Notification Area An area on the bottom-right of the screen that shows which programs are running in Windows.

OEM Refers to components or software installed by the manufacturer.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

◀ Windows 7 uses Libraries to organise your documents, music, videos, photos and more

CAUTIONARY TALES

Although we think there are many great reasons to upgrade your computer to Windows 7, there are a few cases in which we wouldn't recommend it. For starters, although Windows 7 runs happily on many PCs that struggled with Vista, it does have minimum requirements: a

1GHz processor, **1GB of memory**, **16GB of hard disk** space and a graphics chip that supports DirectX 9. There's a free Upgrade Advisor tool to check your PC (www.snipca.com/x1755), and if this recommends against upgrading, we'd suggest following its advice.

In addition, consider your software and hardware: although many older programs can be run in Windows 7, if you have any one old program or device that you absolutely cannot do without, then ensure it is compatible with before upgrading.

BEST UPGRADES

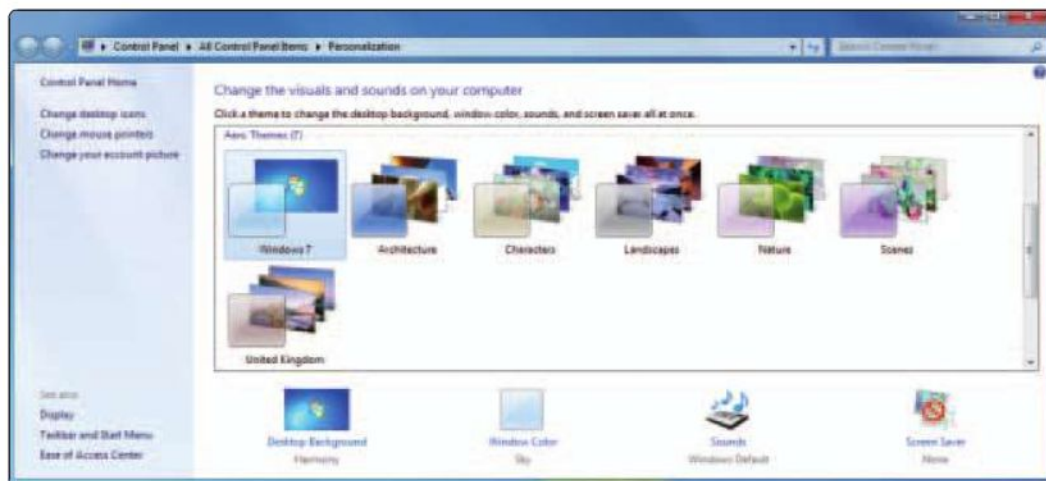
If you're upgrading your PC to Windows 7, then it might be a good time to upgrade its hardware as well. Although it can run with 1GB of memory, Windows 7 works better with 2GB, which is often an inexpensive upgrade. If you're moving from Windows XP, you'll have to reformat your hard disk, so adding a newer,

larger one at the same time is convenient and cheap – a huge 500GB disk costs around £70.

If your PC's graphics card is old then it might not be able to make the most of Windows 7's graphical effects, but a replacement is available for less than £50. Choose carefully, though, as there are two common types of graphics card

slot (AGP and PCI Express) and you'll need to choose a card that fits.

Finally, don't forget your peripherals. If you have an old printer or scanner, there may be no **drivers** to make it work with Windows 7, although a new multifunctional printer that does both can cost as little as £50.



▲ You can personalise how you want your desktop to look

Programme Guide, allowing you to record an entire series with the push of a button. Fancy recording more than one show at a time? Simply plug in another tuner and you're ready to go. You'll find our complete plain English guide to Windows 7's entertainment tools starting on page 60.

Touchy feely

Another technology that has become hugely popular recently is touch control. Although the idea of 'tablet' computers has been around for some time and has been supported by Microsoft since Windows XP Tablet Edition, Windows 7 comes ready to run on just about any kind of touchscreen computer – with no extra software required.

As well as selecting, clicking and dragging with one finger, it supports multi-touch displays, allowing you to resize or zoom images by pinching two fingers at once. There's a free pack of extra touch-controlled software from Microsoft included on most touchscreen PCs to demonstrate how useful touch controls can be.

Windows 7 also includes built-in support for handwriting recognition, so users with a suitable tablet computer can write directly onto the screen, and the speech-recognition options mean you can even control the computer with your voice or dictate text into a document – all that's required is a microphone.

Speed and support

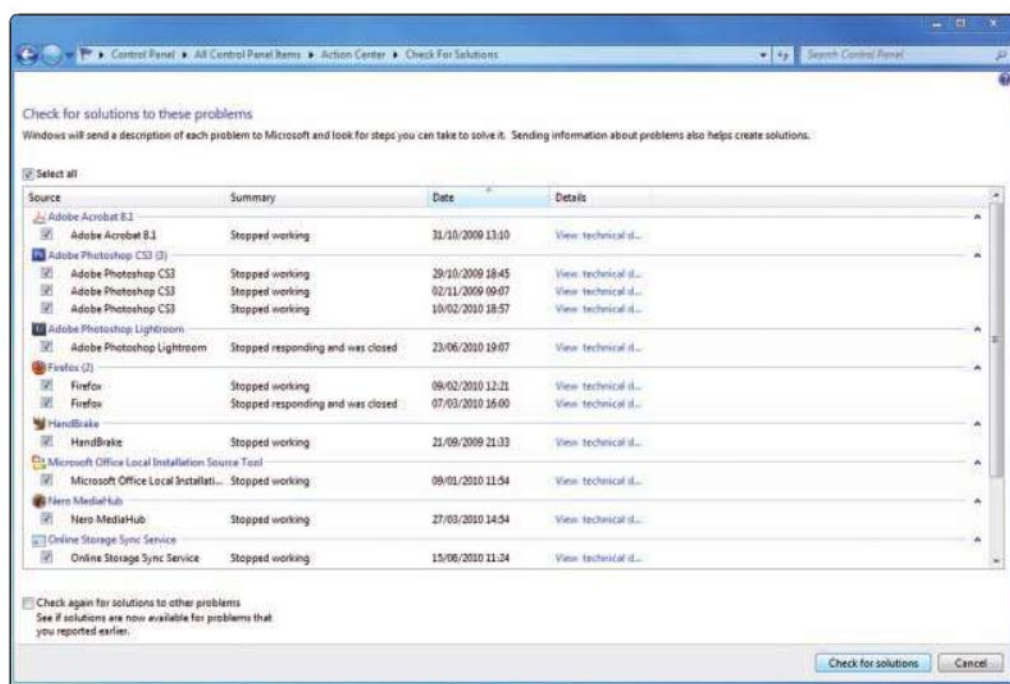
Finally, Windows 7 includes key improvements in areas that you hopefully won't ever notice. Windows Vista, for example, was sometimes noted for often taking an annoyingly long time to start up and copy files, so Microsoft has worked to make Windows 7 far snappier in both departments. We found that file copying was massively improved, while the revised startup process helps you to get online more quickly when starting up the PC.

There are also many improvements and new features that are designed to help you if a problem occurs with your PC. The new Action Center keeps track of programs that are frequently causing problems on the PC, recommending a solution when possible, and it's easy to check for solutions to all recorded problems with one click of a button.

Windows 7 includes all the options you'd expect for protecting your PC should a disaster strike, including System Restore, but also offers the most comprehensive range of backup tools ever seen in Windows. As well as backing up your files to a disc or external storage device, Windows 7 can create a complete image of your hard disk, allowing



▲ Gadgets are small programs run directly on the desktop



▲ The new Action Center keeps track of programs that frequently cause problems on your PC

you to restore a completely dead PC in seconds – previously you would have needed to buy expensive software to do this. It can also create a rescue DVD that helps to start your PC in case of a problem.

You'll find complete plain English guides to maintaining and troubleshooting a Windows 7 computer starting on page 80.

Getting started

We've explained how Windows 7 is the simplest version of the operating system yet, with a hugely improved interface and clever new tools to keep your files organised. It's also packed with features that make it ideal for playing and managing media files, or even recording television if you wish, and includes support for new technologies such as touchscreens, handwriting recognition and voice control.

On top of all that, Windows 7 is quicker to start, more stable than ever and comes with loads of tools to help you troubleshoot or fix any issues that do occur. So, what do you need to do to get started?

If you've already bought a Windows 7 PC and want to get the most of it, then turn to our

Windows 7 Basics section on page 26. There we explain the key parts of the operating system, and how to set it up to work the way you want it to.

However, if you're thinking of upgrading an existing Windows XP or Vista computer, then fear not – the process is quite simple, and we'll guide you through it in plain English. Your first step will be to choose an edition of Windows 7 that's right for you – and for help with that, simply turn the page.



◀ The Devices and Printers option offers easy control of peripherals

JARGON BUSTER

Peripheral A device, such as a printer, connected to a PC.

Processor The chip that is the 'brain' of the computer. The faster the processor, the better a computer will perform.

Taskbar The bar that runs along the bottom of the screen in Windows.

TV tuner An expansion card that, when fitted into a PC, receives TV signals.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

STUDENT SAVINGS

Upgrading to Windows 7 isn't particularly expensive even if you have to pay full price, as retailers often sell boxed copies of the Home Premium Upgrade for less than £100.

If you are a student with an academic (.ac.uk) email address, however, then you can often get it far cheaper.

Microsoft frequently offers enormous discounts for students, though, and at the time of writing was offering upgrades to Windows 7 Business for just £30. For further information see www.snipca.com/x1756 or www.software4students.co.uk for the latest deals.

Similar offers allow students to buy other

software, including the latest versions of Microsoft Office, at a discount. If you're not a student it is also possible to get slightly cheaper copies of Windows 7 by buying an **OEM** version designed for PC builders, but this has disadvantages: most importantly, you won't get any help from Microsoft if it goes wrong.

Which edition?

Windows 7 is available in a number of different editions, each with its own area of expertise. But which one is right for you? Find out with our guide...



▲ Of the three main versions available, Home Premium is recommended for consumers

Once upon a time, Windows editions were a fairly simple affair: most people using Windows XP would use the Home edition at home or the Professional edition at work. However, with Windows Vista, things became a little confusing, with Home Basic and Home Premium versions to choose from as well as an Ultimate option and multiple business-oriented editions.

With Windows 7, Microsoft has made things less complicated. Although there are six versions in total, only four will be available for most of us to buy, and the choice between them is easier to make. In this section, we'll explain what's on offer, and whether you're looking to buy a copy in a box or a new PC with Windows 7 pre-installed, we'll help you to decide which one you should choose.

▼ The Starter edition misses out features like these previews



Simple Starter

The most basic version of Windows 7 is the Starter edition, which will be available only on certain low-cost computers such as mini-laptops, also known as netbooks.

Starter edition is limited, compared to other versions. For example, you can only use one monitor at a time and only one user can be logged onto the computer. Starter edition doesn't support touchscreens, plus you'll need extra software to play DVDs and it can't create a **network** Homegroup.

Perhaps more annoyingly, the graphical interface has been cut back; Taskbar previews are one of the best new tools in Windows 7, for example, and they're missing from Starter edition. Many customisation options are also missing, so you'll be stuck with the standard **wallpaper** Microsoft includes whether you like it or not.

Upping the Premium

Although Microsoft is making a Home Basic version of Windows 7, it won't be on sale in the UK. Instead, most home computers will be sold with Windows 7 Home Premium. So what does it include?

With Home Premium, you get everything that is notably absent from the Starter version, such as the full 'Aero' interface with all the bells and whistles, including Taskbar previews, touchscreen support and the option to use more than one monitor or user account at a time. All the personalisation features are also included, so you can change the desktop wallpaper to whatever you want. And where with Starter edition you can only join a network Homegroup, Home Premium can also create one.

Home Premium also adds two key new features. Unlike the cheaper edition, it includes both the standard and **64-bit** versions on the same disc, so if your computer has the necessary hardware, you can use up to **16GB** of **memory**. The Windows installer will automatically choose the right version for your computer.

More importantly for most users,

though, Home Premium includes Windows Media Center. This simple interface makes it easy to sort through your videos, music and photos, and if you also add a **TV tuner**, it will turn your computer into a great TV recorder – you can read more about that on page 60 of this Ultimate Guide.

Home Premium will be included with most laptops and desktop computers, and it's a great choice for home users. It's priced at £150, with upgrades from Windows XP or Vista costing less than £100. We've seen full copies being sold at much lower prices online.

Go Pro

Home Premium is the cheapest version UK users can go buy, with the Professional and Ultimate editions costing far more. So, are they worth the extra cash?

You might see the Professional edition of Windows 7 installed on some laptops and desktop computers targeted at business users. Despite being aimed at business users, it also includes everything found in Home Premium, including Windows Media Center.

The reason businesses will want to buy the Professional edition is its ability to join a Windows Domain – a system used by many companies to manage networks. If you want to use a computer at work and at home, this makes it worth considering. Another feature aimed at businesses is Windows XP Mode, which allows you to run software designed for XP without leaving Windows 7 or requiring an XP licence.

Other features found in Professional include the Encrypting File System, which allows you to automatically scramble files so only people with access to your user account and password can read them, as well as a remote desktop host that lets you control the computer from another PC, with no extra software needed.

The recommended price for a boxed copy of Windows 7 Professional is £220, although we've seen it selling for around £150 online.

Ultimate guidance

Windows 7 Ultimate is included on a few more expensive PCs as standard, or can be bought in a box. Microsoft's recommended price is £230, but we've seen it selling for £160.

Ultimate has every feature available for Windows 7, including everything in the Professional version, so it's suitable for business or home use.

For home users, however, it doesn't include



▲Windows Media Center is included in all versions except Starter

much more than Professional. Bitlocker disk **encryption**, first seen in some versions of Vista, allows the user to scramble an entire hard disk to hide its contents from prying eyes, while enhanced language options allow Windows to run in several languages at once.

Which to choose?

So which version of Windows 7 is right for you? The choice is quite simple. If you need to connect to a work network, pick up a copy of Windows 7 Professional or a PC with it already installed. Ultimate isn't much more expensive, but adds little of use to most users.

Windows 7 Starter Edition is only worth thinking about if you are intending to buy a netbook PC that comes with it pre-installed; fine for occasional web surfing and basic office tasks. Everyone else should choose Home Premium – the version that will come installed on most new PCs that's also the cheapest for software-only upgraders.

JARGON BUSTER

64-bit A 64-bit computer, when used with a compatible 64-bit operating system, can work with more memory than a standard model, which is useful for some applications.

Encryption The science of scrambling data to hide it from prying eyes.

GB Gigabyte. A measurement of storage capacity, usually for hard disks. 1GB is equal to 1,024MB (megabytes).

Memory The computer's temporary storage area, measured in megabytes (MB).

Network A way of connecting several computers and devices so that they can share data.

TV tuner An expansion card that, when fitted into a PC, receives TV signals.

Wallpaper A pattern or graphic image that is used as the background to your Windows desktop.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

WHICH VERSION DO I NEED?

Edition	Starter	Home Premium	Professional	Ultimate
Recommended price	Pre-installed	£150	£220	£230
Maximum memory	4GB (32-bit)	16GB (64-bit)	192GB (64-bit)	192GB (64-bit)
Taskbar previews	-	Yes	Yes	Yes
Personalised wallpaper	-	Yes	Yes	Yes
Logon two users at once	-	Yes	Yes	Yes
Use two monitors at once	-	Yes	Yes	Yes
DVD playback	-	Yes	Yes	Yes
Windows Media Center	-	Yes	Yes	Yes
Touchscreen support	-	Yes	Yes	Yes
Create Homegroup	-	Yes	Yes	Yes
Backup to network	-	-	Yes	Yes
Encrypt files	-	-	Yes	Yes
Windows XP mode	-	-	Yes	Yes
Join a Windows Domain	-	-	Yes	Yes
Share the desktop remotely	-	-	Yes	Yes
Encrypt an entire disk	-	-	-	Yes
Run two languages at once	-	-	-	Yes

Get ready for Windows 7

Windows 7 is here – but how do you get it and what do you need to know before installing it on your PC? Here we explain all...



The latest version of Microsoft's Windows **operating system** (OS) brings several useful benefits, including new desktop features, improved home networking support, better overall performance and more. If you are still undecided about whether you should upgrade to Windows 7 or not, turn to page six of this Ultimate Guide for further information on what it offers.

Here, we are going to look at the practical question of how you upgrade, which version of the OS to opt for, how to make sure your PC is ready for Windows 7, what you need to do before installation and how to make the transition as smooth and as painless as possible.

There are two main ways to get hold of Windows 7: you can buy a new PC with the OS pre-installed or buy a copy of the software on its own and install it on an existing computer yourself. If you take the former route, you won't have to worry about installation – just make sure the computer you buy has the right OS installed, as some bargain PCs are still being sold with Vista or even Windows XP.

You'll also need to transfer the documents and folders from your old computer to your new Windows 7 PC. This can be done using a utility called Windows Easy Transfer, which enables you to import user accounts, personal files, contacts, emails preferences and so on from one computer to another via a network, **USB** cable or external storage device. On your Windows 7 PC, go to Start, click All Programs, go to Accessories, then to System Tools, where you'll find Windows Easy Transfer. Click it and follow the **wizard**-based instructions to complete the process.

Can my PC run 7?

If you're planning to upgrade an existing PC to Windows 7 yourself, first of all you'll have to



▲ Backing up is important before you begin the installation process

find out whether or not your current computer is up to the task. As a general rule, if the PC is running Vista, it will be able to run Windows 7. The minimum hardware requirements set out by Microsoft for Windows 7 are surprisingly low (www.snipca.com/x473), so even if your computer runs Windows XP, there's a good chance it will also be able to run Windows 7.

You will also need to consider the other hardware and software you have – printers, scanners, cameras and other external devices – as well as any third-party programs and utilities you rely on, such as CD/DVD-burning tools, photo-editing applications, office suites, games and security software.

The easiest way to test the compatibility of your PC, peripherals and so on is to use Microsoft's Windows 7 Upgrade Advisor, which is free on this issue's CD (see page 91). Install the utility, then start it by double-clicking the desktop **icon** and follow the on-screen prompts to run the test. Make sure all your external devices are plugged in before you start and, once the test has finished, check through the results to note any potential problem areas.

Most of the issues it detects concern **drivers**

and these can be fixed easily by running Windows Update once you've finished upgrading the OS. Other issues will be flagged up by a red cross icon. These may include known issues with incompatible hardware/software or items that Upgrade Advisor has failed to identify. Assuming Upgrade Advisor gives you the all clear (or, at least, only points out a few issues that can be easily solved), you can move on to the next stage.

Version confusion

If you're going to buy a boxed copy of Windows 7, there are choices to make first. Windows 7

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32-bit Most home computers are 32-bit, but some newer models are 64-bit.

64-bit A 64-bit computer, when used with a compatible 64-bit operating system, can work with more memory than a standard model, which is useful for some applications.

Applet A small utility program within Windows, such as Calculator or Scandisk.

Bios Basic Input Output System. Software built into all PCs to control the basic operation of devices such as the screen, hard disk and keyboard.

Driver A program that allows Windows to communicate with a peripheral device.

Dual boot Installing two operating systems on a single PC. The user can then choose which to load when the PC is switched on.

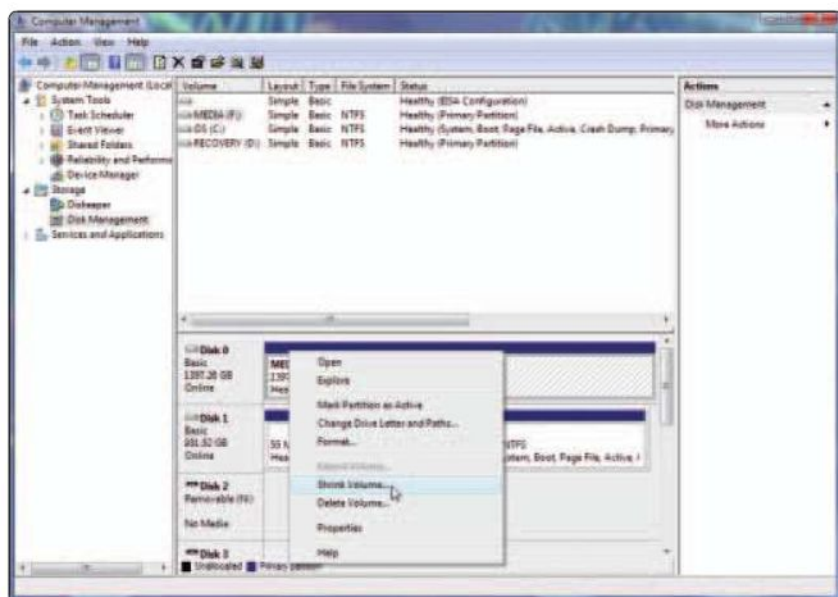
For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk



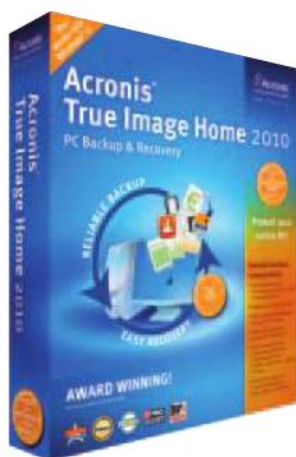
▲ The upgrade installation is the most straightforward route for Vista users

▼ Most readers will opt for Windows 7 Home Premium version





▲ You can install Windows 7 alongside XP or Vista



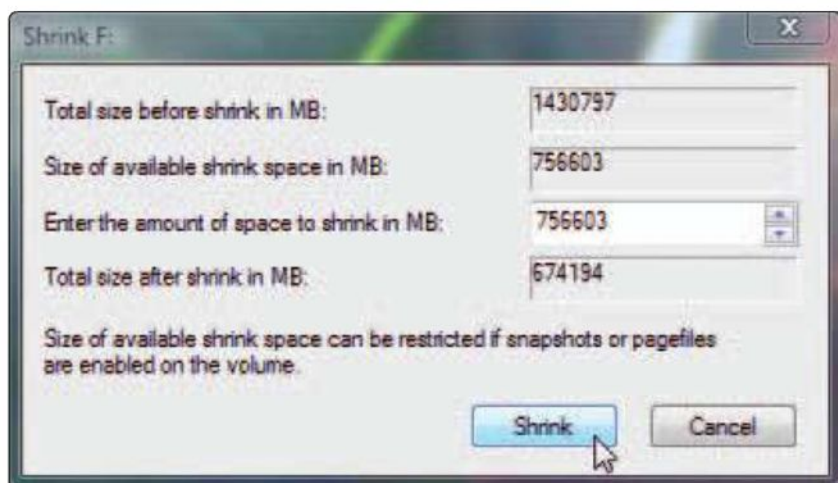
▲ True Image will take a spare copy of your hard disk before a Clean install

is available in different versions, each with its own set of features. See page 12 for more details and prices.

The most suitable version for Computeractive readers is Windows 7 Home Premium. All versions can be bought as either a 'full' or 'upgrade' edition; if the computer you plan to install the software on has a licensed copy of Windows XP or Vista, all you need is the upgrade edition.

To confuse matters further, your boxed copy of Windows 7 contains two discs, because all versions come in two forms – **32-bit** and **64-bit**. If you're interested in the differences, then read our short guide at www.computeractive.co.uk/2251969.

If you are upgrading an older computer, it is likely that your current PC will need the 32-bit disc. If you own a more recent computer, then double-check which version you need. Open the Start menu, right-click on Computer and select Properties. Look under System Type in the window that appears to see whether the current OS is 32- or 64-bit.



▲ Make space for Windows 7 by partitioning your hard disk

Clean machine

Now you need to decide the method you're going to use for installing the new OS. The most straightforward route for Vista owners is to perform an upgrade install (also known as an 'in-place' installation) of Windows 7 over the top of your existing software. This will replace Vista with Windows 7 but leave your personal files, settings, programs and so on intact, so you can pick up from where you left off. At least that's the idea. Most upgrade installations will work fine, but we recommend you perform a complete backup of everything on your PC before you start.

You'll also need to ensure your copy of Vista has been updated to Service Pack 2 or higher. This is likely to be the case if you have Automatic Updates switched on, but to check, go to Start, right-click on Computer and select Properties. Under 'Windows edition' in the window that appears, you should see Service Pack 2 or 3 listed. If not, go to www.snipca.com/x379 to download and install it.

Another way of upgrading to Windows 7 would be to perform a Clean install; this involves wiping your PC's **hard disk**, erasing all traces of Vista and deleting all files, settings and programs before laying down a fresh installation of Windows 7. The benefit here is that you have a clean slate, giving your PC that factory fresh feel and, potentially, a significant performance boost.

Naturally, backing up everything before you start is even more important in this case, since everything from your emails and Address Book contacts to your digital photos, music and internet favourites will be completely and irreversibly erased during the upgrade process. After the Clean install is complete, you'll also need to restore these from your backup copies, as well as reinstall any programs you require.

Windows XP users will only be able to perform a Clean install – the Upgrade install option is only available for Vista. Also, you cannot perform an Upgrade install from a 32-bit version of Windows to a 64-bit one and vice versa. Again, a Clean install is the only way forward.

A final preparation tip is to ensure that you have the username and password of your wireless network to hand – if one is in use. Some routers display this information on their setup pages, so check the router's manual to find out how to access this. If you have lost the password, you can set up a new wireless network in Windows 7 with a new username and password.

The final option is to install Windows 7 in a **dual-boot** configuration. This can be done on both XP and Vista PCs and enables you to install the new OS alongside your existing one, allowing you to select the version of Windows you require every time the computer starts.

To set up a dual-boot configuration, you'll need to partition your hard disk. This splits the main disk into two 'virtual' drives: one that contains your current installation of Windows and an empty one to install Windows 7 on. Vista users have a simple partitioning tool at their disposal in the shape of the Disk Management **applet**. To partition an XP disk, you will need additional software and it is a bit more complex. For most users, we don't really recommend going down this route.

Take the plunge

However you choose to install Windows 7, we cannot stress enough the need to back up personal files and folders first. If possible, use a disk image backup program, such as Acronis True Image Home 10 (www.computeractive.co.uk/2157451) to make a spare copy of your entire hard disk as it currently stands before proceeding.

Once this is done, it's time to install the OS. Depending on the method, however, there might be a final tweak that needs to be made before you dive in. For those performing an Upgrade install, insert the Windows 7 DVD into the CD/DVD drive while Vista is running, and follow the on-screen prompts. For a step-by-step guide, go to page 22. However, if you're opting for a Clean installation of Windows 7 or a dual-boot setup, you'll need to restart your PC from the Windows 7 DVD rather than the hard disk. Unfortunately not all computers are set up to do this, but it's easy to put right.

With the Windows 7 disc in your CD/DVD drive, restart your PC. If you don't see a message saying 'Press any key to boot from CD or DVD', restart the PC again and this time tap the F2 or Delete key on the initial **Bios** screen to enter the Bios setup utility. This is a basic menu you navigate by using the arrow keys and Enter button, rather than the mouse. Look for a section called 'Boot' or 'Advanced', then head to the sub-section called 'Boot Device Priority', 'Boot Order', or similar. Set the CD/DVD drive so it is the first boot device in the list (there should be an explanation of which keys to press in order to achieve this), then exit the Bios, saving the settings.

Now restart once more with the Windows 7 DVD in the drive and this time you should see

the 'Press any key...' message. Hit a key and Windows 7 will start loading the files required for your installation.

If you are dual-booting, ensure you select the correct partition when prompted, otherwise you could end up deleting the Windows Vista or XP installation you are trying to protect. Simply follow the steps on page 18 to perform a clean installation.

Easy as pie

If you've prepared your PC effectively, then installing Windows 7 should be painless – you just need to make a couple of crucial choices during the initial stages, then sit back and let the installation wizard do its thing. Bear in mind an upgrade install can take several hours to complete. A clean install will usually be done in 20 minutes but in either case, the best advice is to leave your PC alone until it has finished. The PC will restart several times during installation, which is normal.

Once Windows 7 is running, Upgrade installers should find their user accounts, files and applications are where they were in Vista. Those doing the Clean install must set up new user accounts and use their backup files to move documents back to the PC, as well as re-install any applications from disc.

With all your post-upgrade jobs finished, it's time to start making the most of Windows 7, so read on to find out more.

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Hard disk A high-capacity disk fitted in almost all PCs used to store applications and the documents and files they create.

Icon A small image used by Windows to identify a file or application.

Operating system Governs the way hardware and software in a computer work together.

USB Universal Serial Bus. A standard that allows quick and easy connection of peripherals to your computer.

Wizard A step-by-step process that helps you choose settings.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

▼ **Upgrade Advisor** tells you if your PC is Windows 7-compatible



7 WONDERS

Windows 7 provides a number of advantages over previous versions of the operating system. It's not a radical overhaul by any means and if you are upgrading from Vista, much of the look and feel will be familiar to you.

Subtle tweaks in the way the desktop works are the most noticeable new features. The Taskbar that runs along the bottom of your

screen has been improved so that it's much easier to access your favourite programs and see which ones you have running.

Other features, such as Jump Lists, Aero Shake, Peek and Snap are included to make it easier to stay organised and navigate around your PC, while simpler networking features, better support for external devices and an

overhauled Windows Media Center are also key additions.

For a full exploration of what's new and whether it's worth upgrading, have a look back at our feature on page 6. And for more on how to use the new features and make the most of what Windows 7 has to offer, turn to page 26 of this Ultimate Guide.

Upgrade your computer from Windows XP to 7

Perform a clean installation of Windows 7 on an XP PC after backing up files

The move from Windows XP to Windows 7 is a dramatic one and the installation process is slightly more involved than when upgrading from Vista to Windows 7. This is because it is not possible to upgrade Windows XP in the same way – Windows 7 can usually still be installed on the computer (assuming the PC meets the hardware requirements – see page 14), but a ‘clean’ installation must be performed.

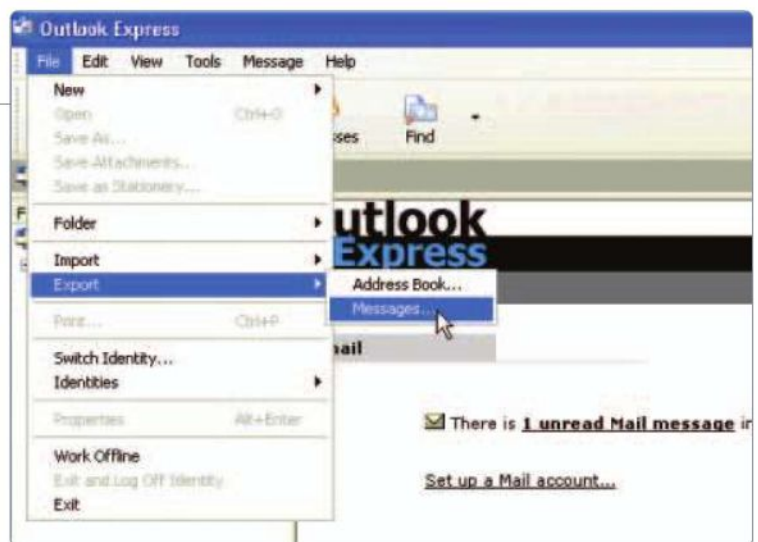
Going down this route means you will need to **back up** files and settings to avoid losing all your important data or having to spend a great deal of time configuring Windows 7. Thankfully, this does not have to be done completely manually, as the Easy Transfer **Wizard** is on hand to help.

Read on to find out how to upgrade from Windows XP to Windows 7.

STEP 1

AS THE PROCESS OF PERFORMING A CLEAN INSTALLATION of Windows 7 will completely wipe the **hard disk**, it is vitally important to create a backup of any files and settings that need to be kept. Files stored in the My

Documents folder can be backed up by copying them to an external hard disk or by **burning** them to blank CDs or DVDs, but you will also have to work through each of the programs you have installed to see whether it is possible to back up any settings that are in place – this includes backing up messages in your **email** program. There is often an ‘export’ option available that can be used to save data to another location.



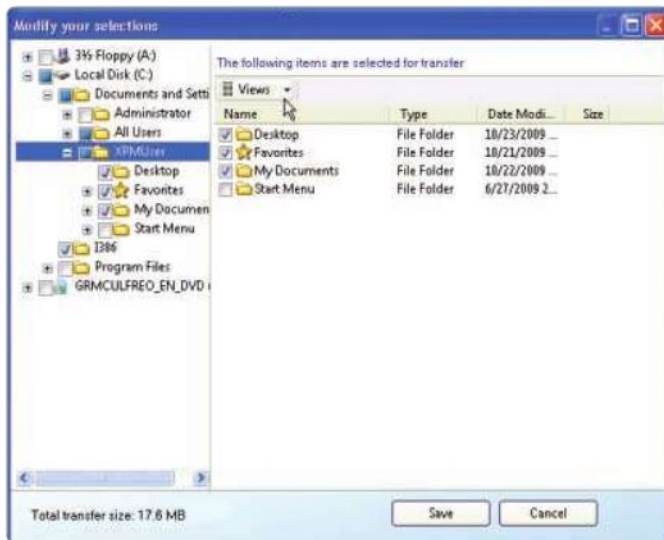
STEP 2

A FAR BETTER OPTION is to make use of the Easy Transfer Wizard that can be found on the Windows 7 installation DVD. This tool can be used to make a backup of a range of files and settings, including user account settings, and helps to automate the process. Data can be stored on a second hard disk inside your computer (if you have one), an external disk or copied across a **network** to another computer. Insert the Windows 7 DVD, **right-click** on it in My Computer and select Explore. Open the Support folder and then the folder called migwiz (short for migration **wizard**). **Double-click** the file named migsetup.exe to launch the Easy Transfer Wizard and click Next when the startup screen is displayed.



STEP 3

AS MENTIONED, THERE ARE VARIOUS WAYS in which data can be backed up, but by far the easiest is to make use of a second hard disk or an external disk, so click this option from the list that appears. At the next screen there is only one option listed: 'This is my old computer, I want to transfer files and settings from this computer'. Click this to continue. There will a pause while the Easy Transfer Wizard checks to see how many user accounts have been created and compiles a list of the files and settings that can be backed up ready for transfer. How long this takes will depend on the number of files on the hard disk.

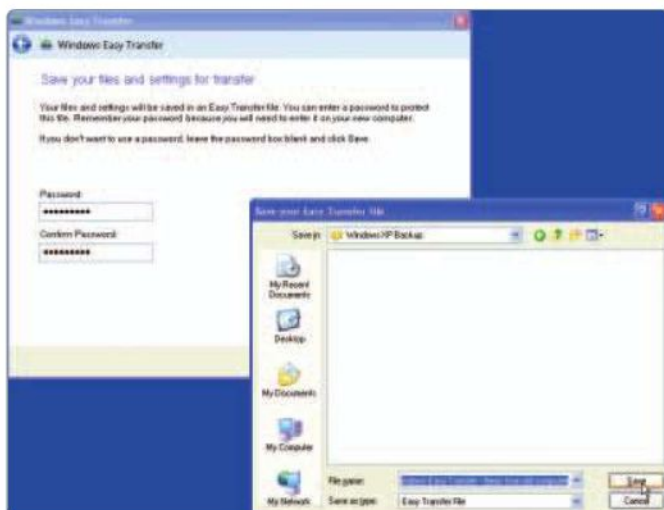


STEP 4

IF NOT ALL THE USER ACCOUNTS that have been detected need to be transferred to Windows 7, untick the box that appears next to them. For the remaining accounts and shared files and settings, it is possible to customise precisely what will be backed up ready for transfer. Click the 'Customize' link beneath a user account entry and use the tick boxes to indicate the data that should be included in the backup. To include additional folders that contain important documents, click the Advanced link at the bottom of the pop-up menu and tick the boxes next to any other folders. Click Save and repeat the process for the remaining user accounts, taking care to double check that all important folders have been selected.

STEP 5

ONCE THESE SETTINGS HAVE BEEN CONFIGURED, click Next to continue and the option to password-protect the files and settings backup will be displayed. While this is not an essential step, it is possible the files that are being backed up contain sensitive information, so this security precaution is advisable. If you are happy to continue without creating a password, click Save, but otherwise enter and then confirm the password you would like to use in the two text boxes before then clicking Save. Password protection is particularly advisable if an external drive is being used as the backup device, and the upgrade to Windows 7 is not going to be performed immediately.

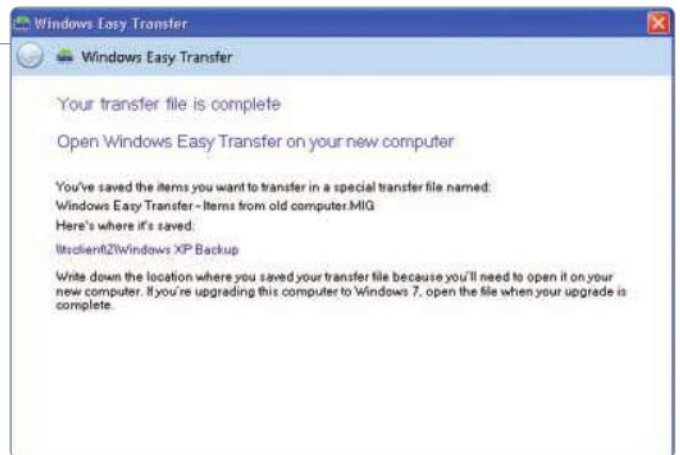


STEP 6

USE THE **SAVE** dialog box to navigate to the hard disk that is going to be used to store the backup. It is important to remember not to save the backup to the disk that currently has Windows XP installed on it as this disk will be **formatted** during the installation of Windows 7. Create a new folder on the desired hard disk or external disk if necessary, change the default file name if you would prefer to use something different and then click the Save button. The Easy Transfer Wizard will then save the selected files and settings to the chosen location and it is important not to use the computer during this process to avoid interfering.

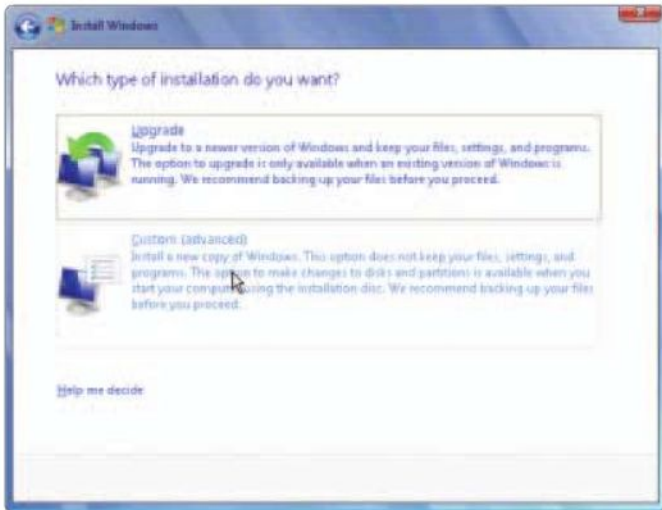
STEP 7

WHEN THE BACKUP IS COMPLETE, click the Next button and a summary screen will be displayed. Here the Easy Transfer Wizard confirms that the backup has been successfully created and displays a reminder of where it has been saved and what it is called – it may be worth making a note of this information for future reference. Click Next to continue and then click Close to complete the process. Before continuing any further, check that the disk used for backup contains a .mig file in the chosen folder. This is the single file that contains all the files and settings that will be transferred to Windows 7. If it cannot be found, run through the wizard again.



STEP 8

YOU ARE NOW READY TO INSTALL WINDOWS 7. Open My Computer and double-click the DVD drive icon. If Windows 7 setup does not launch automatically, double-click the setup file. At the Install Windows screen, click 'Install now' and wait for a moment while the necessary files are read from the installation DVD. Providing your computer is connected to the internet, click the option 'Go online to get the latest updates for installation (recommended)', agree to the Windows 7 licence terms by ticking the box at the bottom of the next screen, then click Next. Upgrading from Windows XP to Windows 7 isn't possible, so click the Custom (Advanced) option.



STEP 9

IF MORE THAN ONE HARD DISK is installed in your computer you will need to indicate which one should be used to install Windows 7. In our case, the one that currently houses Windows XP. In the majority of cases this will appear as drive C: in the list that is displayed, so select this item and click Next to continue. The setup program will detect that an older version of Windows is already installed and will display a warning to that effect – click OK to continue. The process of copying files from the installation DVD to the hard disk will now begin and the setup process can be left to its own devices for a little while.

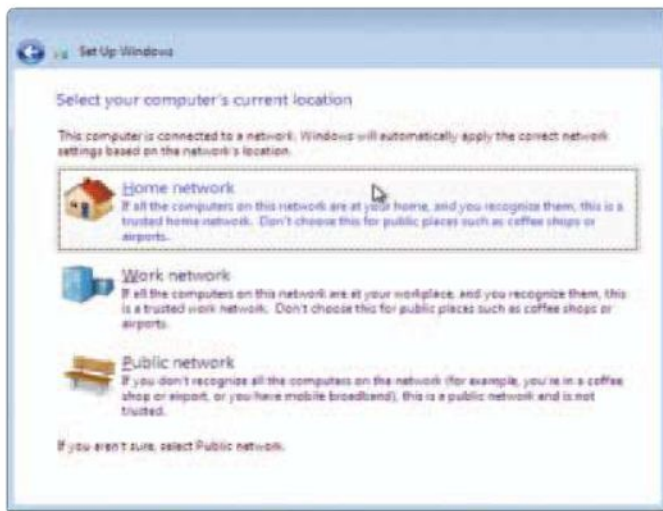


STEP 10

MOST OF THE NEXT STEP OF THE INSTALLATION PROCESS is entirely automated. After setup files have been copied from the Windows 7 disc and then extracted, the installation of Windows will begin. Your computer will be restarted when necessary and the setup process will automatically continue. The entire installation should be completed in less than an hour, but this will vary from one computer to another. When Windows 7 has been installed, the **operating system** will start and there will be a delay while the final stages of setting up the computer are completed. There are now just a few final settings to configure before Windows will be ready for use and the backed up data can be restored.

STEP 11

USE THE DROPDOWN MENUS to indicate that you are in the UK and the relevant time, currency and keyboard settings should be automatically selected. Click Next and then enter a name for your user account and computer before clicking Next again, enter a password to protect your account and click Next. You are not obliged to create a password, but it is recommended and if you do you will also need to enter a password hint as a reminder. Now enter your Windows 7 product key, leaving the activation box ticked, before clicking Next, and then click the 'Use recommended settings' link to enable automatic updates. Choose the correct time zone from the **dropdown menu** and click Next.

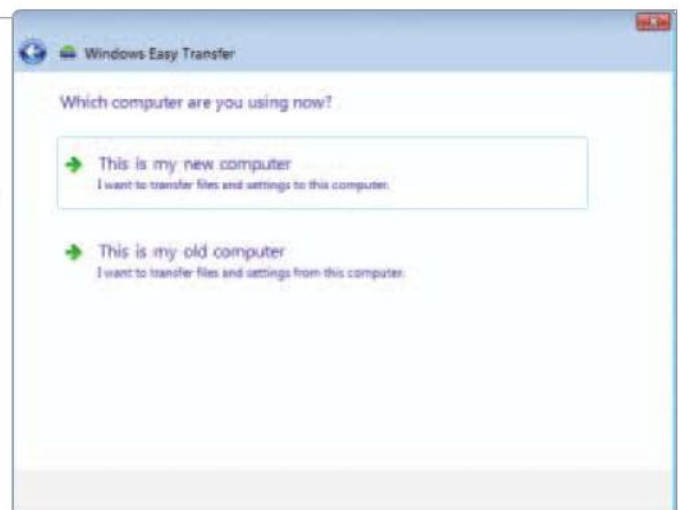


STEP 12

IF YOUR COMPUTER IS CONNECTED TO A NETWORK, the next screen that appears will ask you to indicate the type of network connection that is available. For the majority of users, particularly home users, clicking the 'Home network' option is the next step, after which Windows 7 will configure the necessary settings and establish a connection before restarting. The first **boot** of Windows will take longer than normal as there are still a few final setup tasks running in the background, but within a few minutes the desktop will appear for the first time and Windows 7 is ready for use and configuration. But the next step is to restore data that has been backed up.

STEP 13

CLICK THE START ORB FOLLOWED BY ALL PROGRAMS and then click Accessories followed by System Tools. Click the Windows Easy Transfer link to launch the tool that will be used to migrate the files and settings that have been backed up in Windows XP and click Next at the startup screen. As the data has been backed up to a second hard disk or an external disk, click the option labelled 'An external hard drive or **USB** flash drive' when asked where data is to be transferred from and then click 'This is my new computer'. Ensure the backup disk that has been used by Windows XP is connected and then click Yes to continue.



STEP 14

USE THE DIALOGUE BOX that appears to navigate to the file that was created during the backup process, select it and click Open. If the file has been password protected, enter the relevant password before clicking Next. A dialogue box similar to the one from Step 4 will be displayed from which it is possible to choose what data should be transferred to Windows 7. Click the Advanced Options link at the bottom of the screen and select which accounts from Windows XP should be linked to which user accounts in Windows 7. Click the Transfer button and the backed up files will be copied into place along with system settings. Click Close and restart Windows, after which additional programs can be installed.

Make the move from Windows Vista to 7

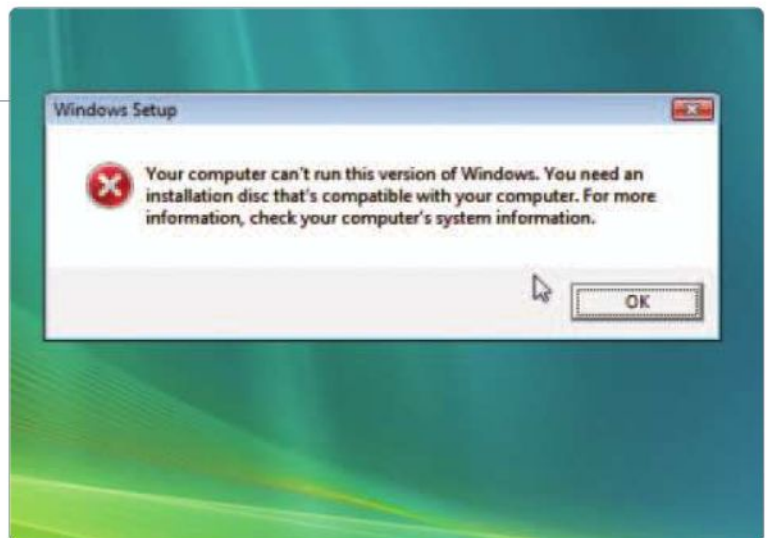
We show you how to upgrade to Windows 7 from Vista

While users of Windows XP looking to move to Windows 7 have no choice but to perform a clean installation, Vista users have the option of an 'upgrade'. This is generally a simpler process. All existing applications, settings and files are left alone and do not need to be manually transferred or installed separately. An upgrade needs to be performed from a version of Vista to the same

edition of Windows 7 or greater – such as Vista Home Premium to Windows 7 Home Premium, or Vista Home Premium to Windows 7 Ultimate. Moving from **32-bit** Vista to **64-bit** Windows 7 will still require a clean installation, and the first five steps of our Workshop show how to do this. Most people, however, can skip to Step 6 to find out how to perform a standard upgrade installation from Vista to Windows 7.

STEP 1

ANYONE WHO OWNS A COMPUTER with Windows Vista installed has the option of upgrading directly to Windows 7 without the need to take too many preparatory steps. However, as mentioned in the introduction, if you intend to upgrade from a 32-bit version of Vista to a 64-bit version of Windows 7, a clean installation will still be necessary. If the installation for a 64-bit version of Windows 7 is started from within a 32-bit version of Vista, an error message will be displayed explaining that the software is not compatible. As the installation of a 64-bit version of Windows 7 cannot be started from within a 32-bit version of Vista, you will need to **boot** your computer from the DVD drive.



STEP 2

BEFORE A CLEAN INSTALLATION OF WINDOWS 7 can be performed, you will need to check the **Bios** is configured to enable your computer to boot from the CD/DVD drive. Power up the computer and watch for an on-screen message indicating which key should be pressed to enter the Bios or Setup – it will often be Del or F2. Press the relevant key and look for a section called Boot Order, Boot Priority or something similar, using the **cursor** keys to navigate through the available options. Change the current settings so the CD/DVD drive is the first boot device and then exit the Bios making sure you select the option to save the changes that have been made.

STEP 3

IF A CLEAN INSTALLATION IS BEING PERFORMED, the Windows Easy Transfer tool can be used in the same way as for Windows XP to make a **backup** of files and settings so they can be quickly and easily transferred to Windows 7 once it has been installed. Turn back to page 18 to find out how to use this utility and perform a clean installation of Windows 7. In addition to the files and settings backed up by this tool, don't forget to manually back up settings for third-party programs, ensure you have the serial numbers required to re-install software you have bought – it is worth taking some time over this to ensure nothing is forgotten.

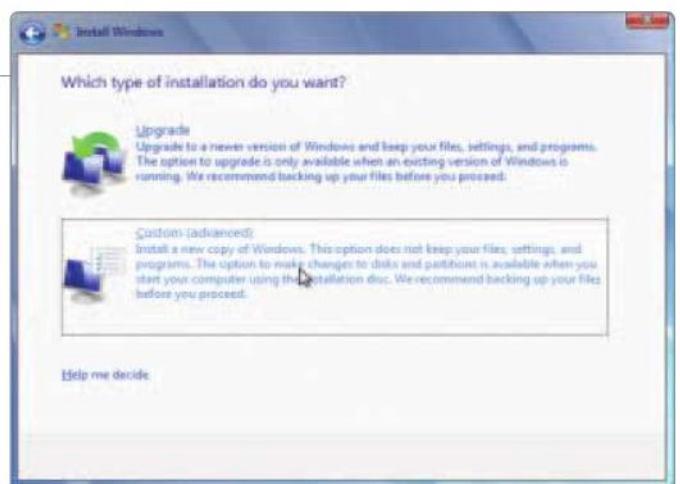


STEP 4

ONCE ALL THE NECESSARY BACKING UP IS COMPLETE, Windows 7 can now be installed. The process is slightly different depending on whether a clean installation is required or if Vista is being directly upgraded to Windows 7. If a clean installation is required, insert the Windows 7 installation disc and restart your computer. When prompted, press any key on the keyboard to boot from the DVD. Setup files will be read from the disc and after a few moments the installation will begin. The first thing to do is to select the correct language, date and keyboard settings from the **dropdown menus** before clicking Next and then click 'Install now' to continue.

STEP 5

TICK THE BOX THAT APPEARS ON THE NEXT SCREEN to agree to the Windows 7 licence and click Next to continue. Click the 'Custom (advanced)' option, select the **hard disk** to which Windows 7 should be installed and then click Next. From this point onwards, performing a clean installation over the top of Vista is very much the same as performing the same type of installation over the top of Windows XP and you can follow the instructions on page 20 from Step 8 onwards. The remaining steps of this Workshop will focus on upgrading from Vista to Windows 7 from within Windows.

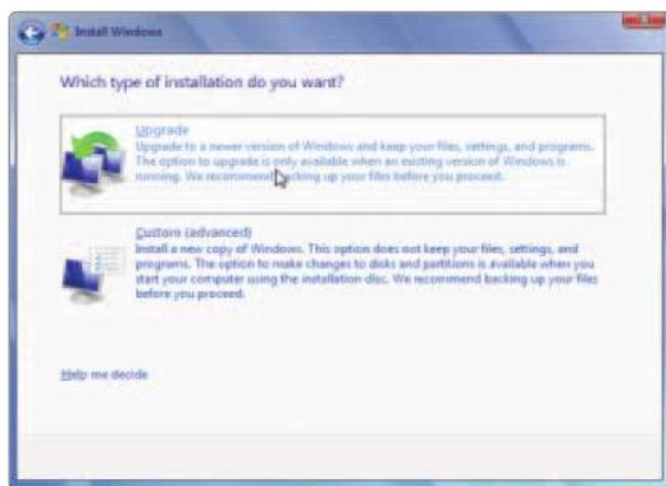


STEP 6

IF YOU ARE PERFORMING A MORE STRAIGHTFORWARD UPGRADE from Vista to Windows 7, once the preparatory backup steps have been taken, it is time to install Windows 7. Insert the installation DVD and the setup routine should launch automatically, but if this is not the case, open Computer from the Start menu and then **double-click** the icon representing the DVD drive before double-clicking the file called setup.exe. If User Account Control (UAC) is enabled, you will also need to click the Continue button. At the Install Windows screen, click the 'Install now' link and wait while the files needed for the installation are read from the DVD.

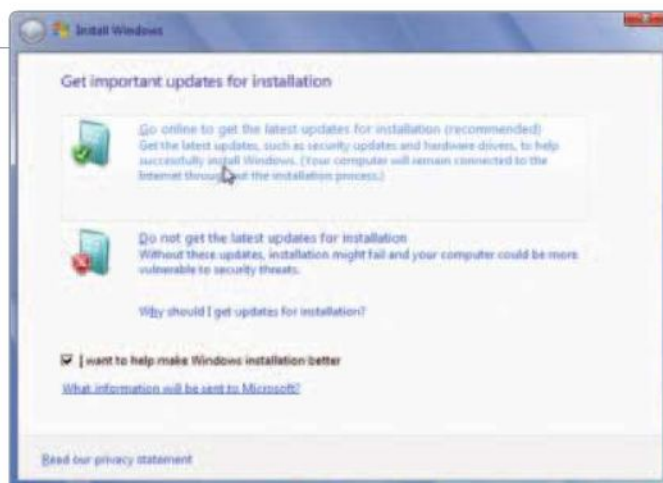
STEP 7

AT THE NEXT SCREEN THERE IS AN OPTION to connect to the internet to download the latest installation files to help ensure the transition to Windows 7 is as smooth as possible. You can also opt to send anonymous information about your computer configuration – information such as the hardware and software installed – to Microsoft to help further improve the installation process. If you are happy to share this information, tick the box at the bottom of the **dialogue box** before clicking 'Go online for the latest updates for installation (recommended)'. Neither option is necessary but if an online check is performed, the very latest **drivers** for hardware can be installed automatically.



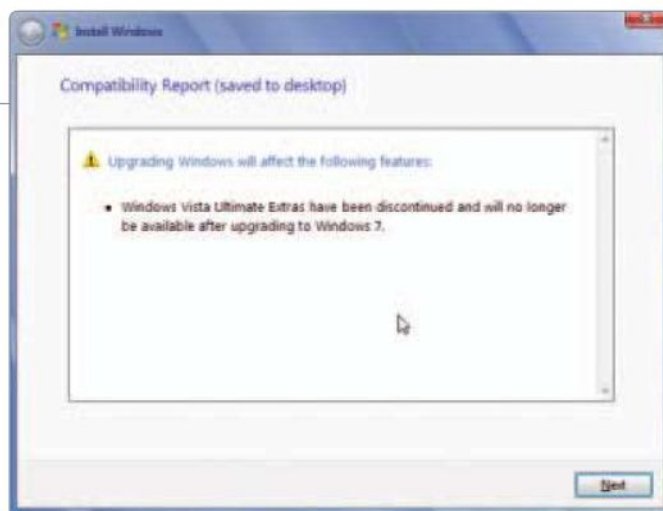
STEP 9

BEFORE THE INSTALLATION CONTINUES, Windows 7 will perform a check of the software currently installed. If any programs are detected that are not compatible with Windows 7, a summary screen will be displayed listing such software. The list will generally only include much older software, or programs such as **anti-virus** tools. Make a note of anything listed here. Once the installation of Windows 7 is complete, you should check the website of the software manufacturer to see if software updates have been released to improve compatibility, if there is a new Windows 7 compatible version of a program available, or find out if you will need to use an alternative tool. When this has been done, click Next.



STEP 8

THERE MAY BE A PAUSE WHILE UPDATES ARE DOWNLOADED from the Microsoft site. When the software licence terms are displayed, tick the box to agree to them and then click Next. The next screen offers a choice between an upgrade or a clean installation. When moving from Vista to Windows 7, an upgrade is possible. We still recommend backing up your documents and settings, whether manually or by using Windows Easy Transfer. To install, click the Upgrade option. At this stage no changes have been made to your computer, so the setup can be cancelled in order to perform a backup.



STEP 10

THE INSTALLATION PROGRAM will now copy the files required for setup from the Windows 7 DVD, extract their contents and the installation process will take place. This section of the installation is automated and your computer will be restarted when required without the need for confirmation. Performing an upgrade to Windows 7 is generally a bit slower than installing the **operating system** from scratch, but precise installation times will vary from one computer to another. Installation times are also influenced by the number of programs that were installed under Vista, as Windows 7 needs to transfer settings to the upgraded operating system – if a large number of programs are installed, Windows will take longer to perform the checks.

STEP 11

WHEN PROMPTED TO DO SO, enter the product key for Windows 7 – this can be found on the DVD case – and ensure the box labelled 'Automatically activate Windows when I'm online' is ticked before clicking Next. It is not necessary to provide a product key and activate Windows immediately, but if it is not done at this stage, prompts will be displayed, so it is a good idea to get it out of the way from the start. To ensure that Windows is kept up to date with the latest patches, fixes and driver updates, it is important to enable automatic updates – just click the 'Use recommended settings' option to do so.

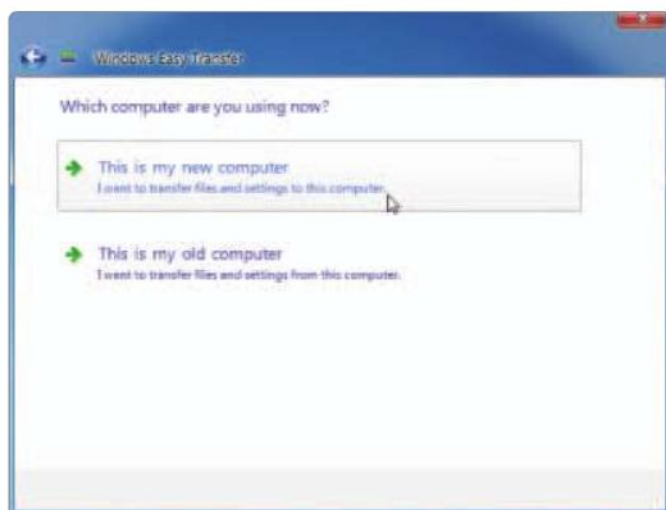
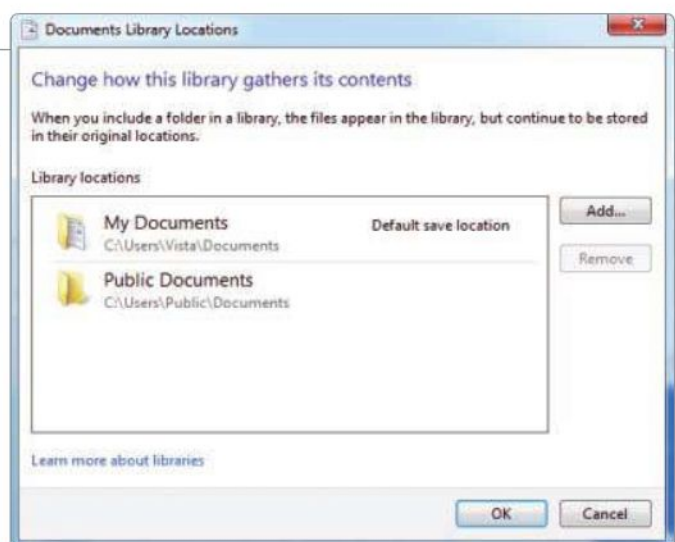


STEP 12

SELECT THE CORRECT TIME ZONE from the dropdown menu and ensure the date and time are set correctly before clicking Next. The final stage of installation is to configure **network** settings. There are three options to choose from, and for most people the 'Home network' option is the most appropriate as this will make it easier to share files and resources between computers on the network. There will then be a slight delay while the necessary network settings are detected and configured. If other Windows 7 computers are already on the network, the option to connect to a Homegroup network by providing the relevant password will be displayed – this step can be skipped if it is not needed.

STEP 13

THERE WILL NOW BE ANOTHER DELAY while the installation program finishes the setup process. When Windows is fully loaded, there may be a **shortcut** on the desktop called Windows Compatibility Report. Double-click this to open the report in Internet Explorer (or whichever **web browser** has been configured to be the default) and it will display details of any programs that the setup program determined to be incompatible with Windows 7 back in Step 9. Take a look through the Start menu and any programs that were installed under Vista should still be available now that Windows 7 has been installed. Similarly, documents should still be accessible by opening the relevant folder.



STEP 14

IF YOU HAVE PERFORMED A SIMPLE UPGRADE from Vista to Windows 7, the new operating system is ready to use. If you have had to perform a clean installation due to moving from a 32- to 64-bit version of Windows, now is the time to restore data that was backed up using Windows Easy Transfer. Launch the program from the System Tools section of the Accessories group in the Start menu and click Next before clicking 'An external hard disk or **USB** flash drive'. Click the link to indicate that this is your new computer and then browse to the backup file created earlier on before running through the remainder of the data transfer process.

The Windows desktop

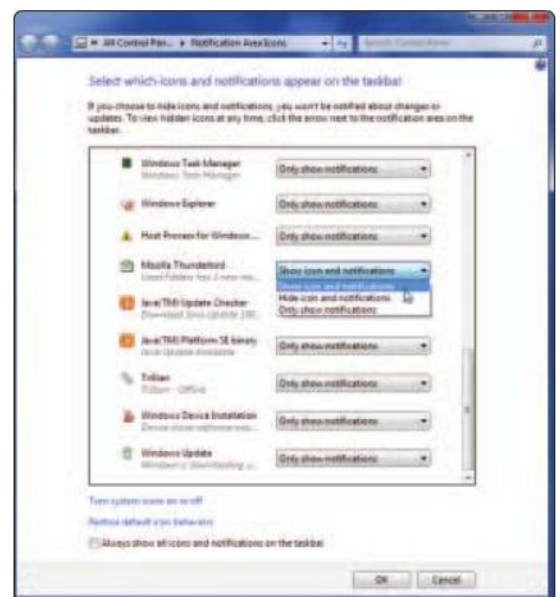
The Windows 7 desktop provides plenty of new tools and offers a simpler way to access programs, folders and documents together with lots of customisation options

As we've already seen, Windows 7 is not a radical overhaul for Microsoft's operating system. In many ways, it looks and works like Vista (without the annoying bits). However, Microsoft has made a number of improvements and nowhere are these more evident than on the desktop.

The desktop is every computer's HQ. It's the first thing you see when you start up your PC and it runs in the background all the time, providing access to files, menus, programs and shortcuts, and acting as the main point for all your computing activities. Windows 7 keeps all the desktop elements you're used to, but adds tweaks and presents some new ways of working.

We've picked out some of the most interesting new features and here we'll explain how they differ from what you're used to in Vista or XP, and why they make using Windows 7 faster and easier.

▼ Searching for files and programs is much simpler in Windows 7



▲ Customise your Taskbar – it's easy

Starting out right

Let's begin with what used to be the most important element of the desktop in Windows – the Start menu button. Positioned at the bottom left-hand side by default, a click of this button, which bears the Windows logo, reveals a list of recently used applications.

If you are coming to Windows 7 from XP, you'll notice one key difference. There's a white bar at the bottom of the menu labelled 'Search programs and files', which allows you to find folders, applications and Windows tools fast – start typing the name of a file into the bar and Windows 7 displays a list of items that match what you've typed

instantaneously. As you type more letters, Windows filters the list.

You can still use the 'All Programs' link to display a list of installed programs if you like, but we think you'll soon become accustomed to using this improved search tool, particularly for those applications and documents you need to access less often.

The new Windows Taskbar

We mentioned earlier that the Start menu used to be the most important part of the desktop, but the Taskbar has been revamped in Windows 7 to provide an easier way to manage programs, documents and devices.

Running horizontally along the bottom of the screen, the Taskbar replaces the Quick Launch bar in XP and Vista. When you first switch on your Windows 7 PC, you'll see icons on the Taskbar for Internet Explorer, Windows Explorer and suchlike. Click one to launch that application. Once open, a bright rectangle appears around the icon to show

that it's active. You can also right-click icons to activate a tool called Jump Lists, which displays a list of options relevant to that item, such as a list of recent documents.

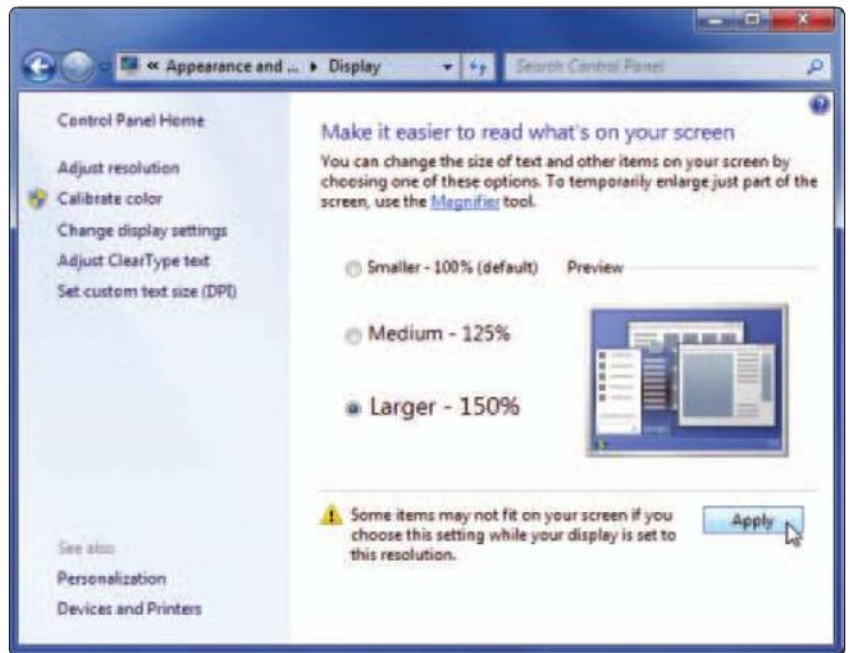
So far, so simple, but the Taskbar has more tricks up its sleeve. In XP and Vista, the Taskbar could get pretty crowded, particularly if you had a number of documents open in one application. Windows 7 groups these together, indicating they are open by 'stacking' them on the Taskbar. So how do you get back to the window you want to use if it's hidden in the stack? Simply hover your mouse pointer above the stack and each open window is displayed as a thumbnail image by a tool called Peek. Move the mouse pointer between them and a full-screen preview appears. Then you just need to click the thumbnail or preview to return to that window.

Even better, you can customise the Taskbar with ease. Use your mouse to right-click any application in the Start menu and the option to 'Pin to Taskbar' is displayed in the Jump List. Click this for the program to appear on the Taskbar. You can also drag and drop programs, folders and icons for items such as external hard disks to the Taskbar, although they don't appear as separate icons. To access them, right-click the Explorer folder and they'll appear in the Jump menu. To remove them, right-click the icon and select 'Unpin this program from taskbar'.

Actions and notifications

The right-hand end of the Taskbar looks less cluttered when several applications are running. In XP and Vista, the Notification Area displayed a small icon for many of the programs, but in Windows 7 these have been tidied away. Click the up-facing arrow to display a list of what's open. There's a link at the bottom of the window called 'Customise'; click this and you can opt to display specific programs, such as email, permanently on the Taskbar or have them appear only when they are doing something, such as scanning your disk or receiving an email, for example.

Next to the new Notification Area you'll see a small white flag icon. This tool brings together vital security and PC maintenance alerts. It's called the Action Center and it replaces the Security Center found in XP and Vista. If Windows believes your PC is at risk because, for example, your firewall or anti-virus programs aren't working properly, a warning message will appear. You can then



click the alert to open the main Action Center, where Windows 7 will outline the problem and suggest a way to resolve it.

Vista was criticised for being a bit too eager to provide pop-up alerts, so Microsoft has provided the option to tailor warnings in Windows 7. In the main Action Center there's a link on the left-hand side labelled 'Change Action Center settings', which you can use to block specific alerts. Proceed with caution, though, as security alerts help with keeping your PC healthy. You might, however, choose to switch off Windows Backup alerts if you're using a different backup method.

Shake and Snap

Now let's look at two features that may appear a little frivolous but are quite handy. If you have several windows open simultaneously, the desktop can become untidy. Place your mouse pointer on any part of the bar at the top of a window. Hold down your left mouse button and gently shake the mouse back and forth. All the other windows will disappear to back to the Taskbar; shake the mouse again and they'll reappear.

Alternatively you can left-click, hold the window bar and move it towards the top of the screen. As it reaches the top, it 'snaps' and fills the screen. Pull down and it reverts to its former size. We found that Snap doesn't quite work as it's supposed to, though. Oddly, with

▲Ease of Access controls allow for adjusting text and icon size

CHOOSING A SIMPLER VIEW

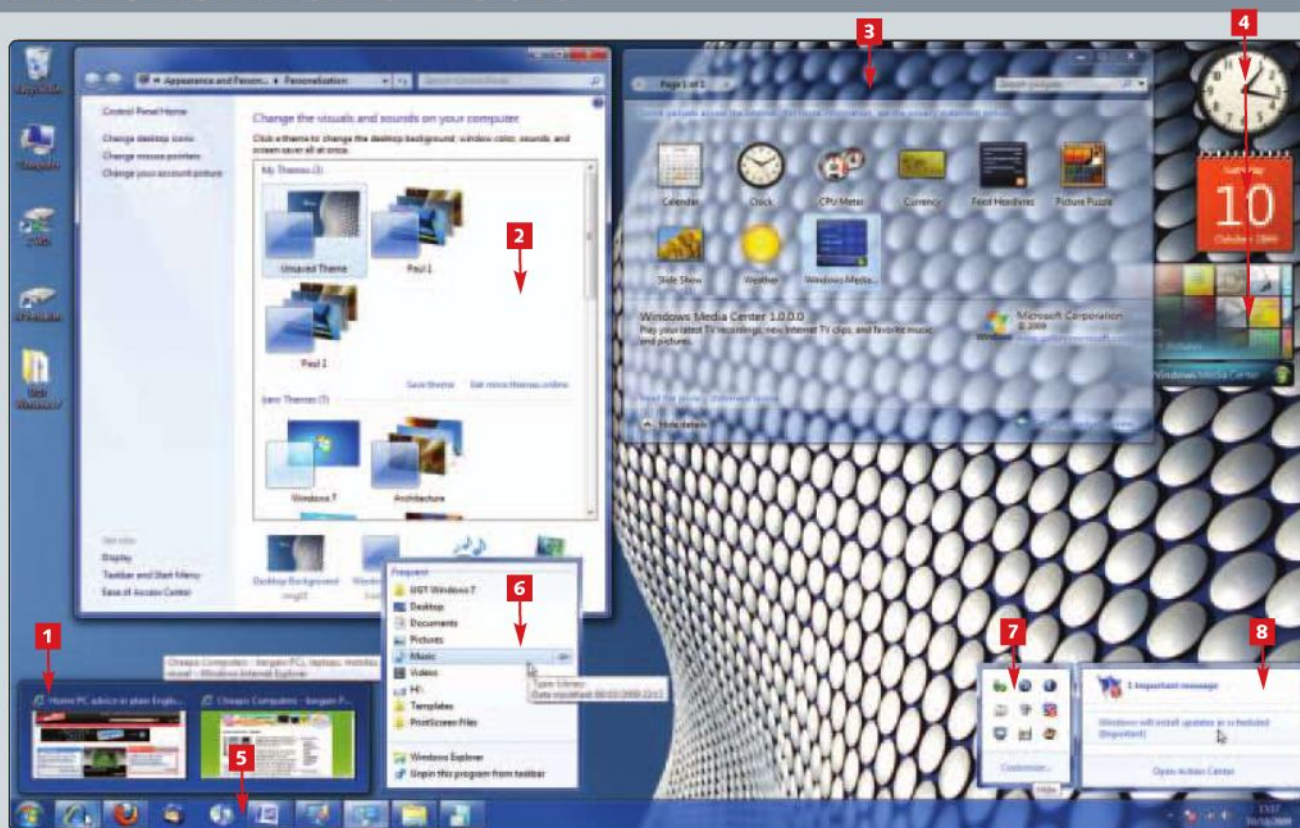
Windows 7 provides plenty of attractive visual features, but they're not everyone's cup of tea.

If you prefer a cleaner and much less colourful display, then right-click on the

desktop and select Personalize. Scroll down and you can choose from a range of simpler views. There you'll find a selection of high-contrast themes suitable for people with impaired

eyesight. You will also find shortcuts to a number of Windows 7's Ease of Access controls, such as adjusting the size of desktop icons and the mouse pointer.

WINDOWS 7 DESKTOP TOOLS



1. Peek

Position your mouse pointer on an active program on the Taskbar and a thumbnail preview of what it's doing is displayed. Here we see two tabbed windows open in Internet Explorer.

2. Themes

Customise the Windows desktop with slideshows and even choose themed sounds for Windows alerts. You can choose your own pictures if you don't like Windows' themes.

3. Windows Bar

Left-click and hold this area, then 'shake' your mouse to send unwanted windows scurrying out of view. A much handier tool than it sounds.

4. Desktop Gadgets

These mini-apps were first introduced in Vista's sidebar, but Windows 7 goes one further by putting them right on the desktop. There are lots to choose from online.

5. Taskbar

This Taskbar replaces the Quick Launch Bar found in Windows XP and Vista. Applications and external hard disks can be 'pinned' here for easy one-click access.

6. Jump Lists

Right-click on any item pinned to the Taskbar and a list appears above it, giving you options such as opening recent documents from that program or opening a related folder.

7. Notification Area

Active applications are tidied away into a single menu. Click the up-facing arrow to see what's running. Can be customised to keep specific items on view permanently.

8. Action Center

This replaces Vista's Security Center and prompts you to perform important maintenance tasks. You can customise which types of alerts you wish to receive.

one of Microsoft's own programs – the copy of Office 2007 we used to write this article – windows snapped up but not down again.

You've probably noticed the colourful and odd wallpaper on our desktop – Windows 7 provides lots of ways to customise its appearance. Right-click on the desktop and select Personalize – here you can select pre-installed Themes or choose your own pictures, mix up some of the images from a theme into a slideshow or download new themes for free. Click the Desktop Background link and you can choose which images are displayed and how often they change. Click Sounds and you can change the sounds Windows makes at startup, shutdown and so on.

Go go gadgets

Finally, Windows 7 retains the desktop Gadgets found in Vista, although they are now placed directly on the desktop rather than in a sidebar. Right-click the desktop and select Gadgets to display a selection of applications that float on top of your work area, including images, the time and date or weather. Only a handful are supplied, but there are lots more to choose from online by clicking the 'Get more Gadgets online' link.

There are lots of great ways to control and customise Windows 7 from the desktop. Read on to discover more new features and don't forget to take advantage of our free online video guides at www.computeractive.co.uk/windows7 that show the good stuff in action.

NEW!

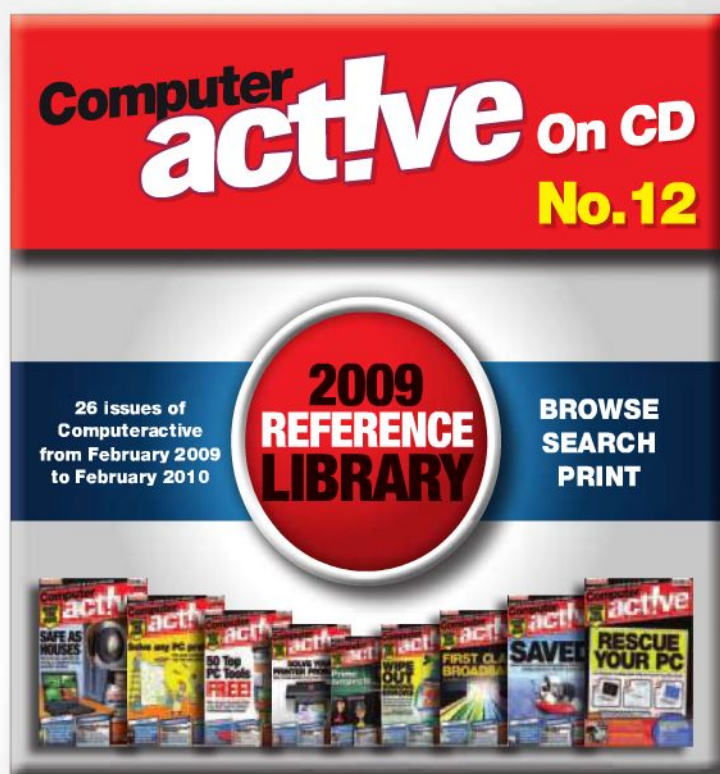
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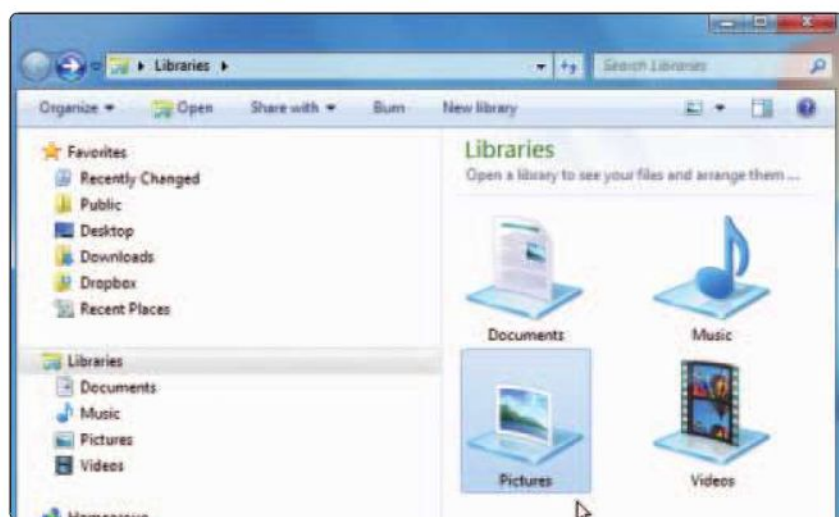
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(CODE RD63)

Get organised

Windows 7 provides a great range of tools to help you organise your files



▲ Each library pulls together similar documents from different locations

On page 26, we showed you what the different parts of the Windows 7 desktop do. Now it's time to take a closer look now at how Windows organises your documents. If you're used to the Vista way of doing things, Windows 7 really doesn't operate that differently. And if you're coming from Windows XP, then most of the changes are fairly intuitive – and certainly for the better. We'll show you how you can use the new special features and enhancements to store and find files, as well as personalise the Windows 7 environment to suit your needs.

In the library

To begin, look for the Windows Explorer icon on the far left of the taskbar (next to the Start button) and click it. Alternatively, click the Start button and begin typing **libraries** (without the quotes) – you'll see the link underneath Programs. Click it. An Explorer window appears. Displayed within are not folders in the traditional sense, but something called libraries. A new feature in Windows 7, each library pulls together similar documents from different locations into one 'virtual' place. That means you can browse the files as if they were all in the same folder, or perform searches without switching between folders or undertaking lengthy searches on the entire hard disk.

No files are moved from the folders where you put them, but they can all be seen and accessed from the library.

This main Libraries window has icons for Documents, Music, Pictures and Videos. You can also add a new library – say, for voice notes or writing projects. A library can be a subset of an existing library – it doesn't matter, as these are virtual collections of locations and so your hard disk won't fill up with extra copies of any of the files.

To create a new library, right-click on the window background, choose **New** and then **Library** from the pop-up menu. Now type in a name for your library. A new icon appears. When you double-click to open it, you'll see that it's empty since you've not included any folders yet. Click 'Include a folder' and navigate to where, say, all your voice notes are stored, then click 'Include folder'. The library will now display all the documents in the folders and sub-folders linked with it. At the top of the window, under the library name you'll see **Includes: 1 location**. Click it if you want to see what that location is, or add a new location by clicking **Add**, then navigating to another folder as before.

The search is on

A comprehensive search facility was one of the most useful new features that Vista added to Windows, and it's even more central to Windows 7. Search boxes are found just about everywhere – from the Start menu to every Explorer window that you open, whether



▲ A library can be a subset of an existing library





▲ Windows 7 includes a comprehensive search facility

folders, libraries or **dialogue boxes**. These look similar to those in Windows Vista, but operate differently. By default, Windows 7 searches and indexes all files in all locations where your documents are likely to be stored, and it does so in the background. Once that's complete, it will find file names, partial file names and even text within the documents – whether they be **spreadsheets**, emails, web pages, Word documents or **PDF** files.

Indexing can take some time if you have lots of documents and, say, have just upgraded to Windows 7. But unless a file has been indexed, Windows won't find it – even if you can see it in Explorer's file list. Obviously, this can lead to confusion, so it's important to understand how and where Windows indexes.

To see what's going on, click the Start button and type **Search** into the Search box (without the quotes). In the list of results, under Control Panel, click **Change how Windows searches**. You'll see how many files

have been indexed and whether Windows has finished indexing.

Beneath that are shown all the locations where Windows indexes. Click **Modify** to see the locations in more detail – here you can put check boxes against folders anywhere on your computer. Expand each location by clicking the small triangles to reveal sub-folders. Make sure the list includes all the places where your documents, music, photos and any other important files are located. Click **OK**, then **Close**. If you've just added a folder with many documents in it, give Windows time to index them before putting Search to the test.

Tags and metadata

In Windows 7, Explorer windows change their appearance depending on the type of files you're looking at. You can choose from a selection of views by clicking the **More options** button at the top right of the window. Often it's possible to change information about a file within the folder or library without needing to start another application. For example, any folder that contains music files, such as **MP3s**, allows you to see or change the metadata tags that hold information such as the title, track number,



▲ You can view metadata tags of MP3s from any folder

JARGON BUSTER

Dialogue box A window that pops up to display or request information.

Fat A hard disk formatting system used by Windows.

Hard disk A high-capacity disk fitted in almost all PCs and used to store both applications and the documents and files they create.

MP3 A standard for compressing digital audio. The sound quality of an MP3 file is close to that of CD audio, but needs only a fraction of the storage space.

NTFS NT File System. A file system used by Windows NT, XP and Vista.

Partition A large hard disk can be split into two or more partitions or 'virtual' drives. Once partitioned, each section is treated by Windows as though it were a completely separate, smaller hard disk.

PDF Portable Document Format. A file format that allows pages of text and graphics to be viewed and printed correctly on any PC.

Pop-up menu A menu that appears on screen when you click something.

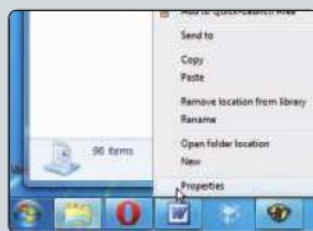
Spreadsheet A software application for creating sheets of calculations, set out in rows and columns.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

MOVING THE MY DOCUMENTS FOLDER



Click the Start button, then **Documents**. In the left pane, **Documents** should already be highlighted. Click the small triangle on the left to expand the list, then right-click on **My Documents**. In



the **pop-up menu**, click **Properties**. At the top of the **Properties** window, click on **Location**, then **Move** and navigate to where you want to relocate the **My Documents** folder – in this



case, we're moving it to a separate hard disk. Create a folder or choose an existing one. Click **Select Folder**, then **OK** – Windows will move all the files from your **My Documents** folder to its new location.



▲ Under User Account Control, you can control the access of each user

artist, genre and date of release. To modify part of the tag for any highlighted files, click the relevant

field and type in your new information. Now you won't need to open Windows Media Player when you want to organise your MP3 collection – you can do it in Explorer.

Similarly, if a folder contains image files, you'll see information such as the date they were taken, their dimensions and so on. Some of this information is supplied automatically by your digital camera, but it's useful to have extra notes. You can add a title for a photo, an author and tags that will help you to identify the subject to make searching easier. A holiday photo could, for example, include tags with the names of the location, subjects and any other memories of the occasion. Each tag is separated by a semicolon. You can also add a star rating.

Everything in its place

Windows has standard places for storing different types of documents, as well as programs and the data generated in the course of their operation. Photos of various kinds are stored by default in the My Pictures folder within My Documents. Music goes into the My Music folder, videos into My Videos, and so on. If you upgraded from XP or Vista to Windows 7, then Windows will have done its best to keep all documents where they were.

Of course, there's nothing to stop you putting any kind of document anywhere you like on your PC's hard disk. And thanks to the

new Search features in Windows 7, you can find things fast – wherever they are. But life will often be simpler if you make use of the folders Windows has set out for the different document types, rather than just storing everything in one folder or, worse, on your Windows Desktop.

Most of your documents will be stored in subfolders of My Documents, which, by default, is on **hard disk C** – the same as Windows and all your programs. Ideally, My Documents should be on a different **partition** (your D: drive, for example, if you have one) to make it easier to back up your important documents or restore your Windows partition in the event of a problem, without one

affecting the other. If your hard disk is divided into two or more partitions, relocating My Documents onto, say, your D drive is recommended will only take a few mouse clicks. After that, Windows will still find all the folders contained within, just as if

they were still on the C drive. You can see how it's done in the box on page 31.



▲ An account set up for kids can include restrictive access settings

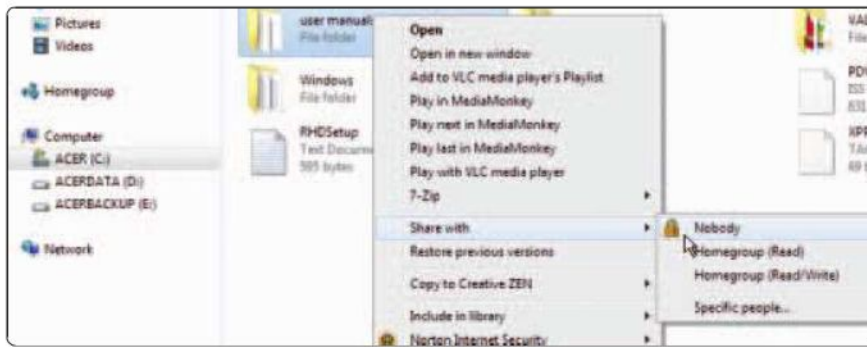
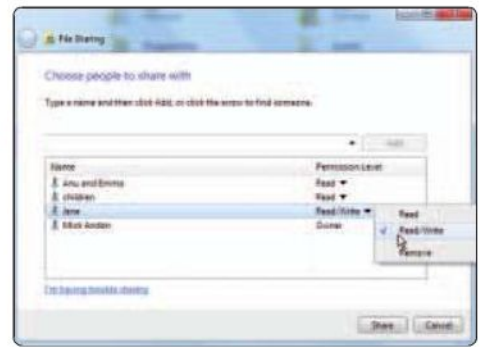
User accounts

When there's just one PC in the house, shared by the family, you may be reluctant to leave important documents on the desktop or in folders where anyone can access, change or delete them. One way around this problem is to set up separate user accounts in Windows 7.

The master account holder, or Administrator, is the account you have to set up when you first install Windows 7. Additional accounts on the PC can be either Administrators or Standard users with limited permissions – if you want to install new programs or make important changes to any settings you have to be an Administrator.

User Account Control – part of the Windows Control Panel – is where to set up new accounts and choose what is and isn't allowed for each user. Each user has their own desktop, which can be personalised, and their own folders for documents. An account set up for children, for example, can include parental controls with settings to restrict access to adult websites or violent games, or monitor the amount of time they spend on the PC.

You might also choose to have separate accounts for, say, different parts of your life – separating work and leisure, for example. It's a bit like working on two separate computers



although, as Administrator, you have access to any documents, programs and settings belonging to anyone on the computer – other users do not.

Microsoft actually recommends that after setting up Windows 7 and installing your programs, you create an everyday Standard user account for yourself and use that instead of your Administrator account. That way, you will avoid accidentally making changes, and any malicious programs that find their way onto your system will have a harder time doing any serious damage, as their access will be more restricted.

To create a new user account, click the Start button, then Control Panel, which has two ways of displaying what's available – you can change the view in the top-right corner of the window. The first view, which uses icons for each item, is a hangover from older versions of Windows. The other, called Category, groups settings under headings such as System and Security, Network and Internet, Hardware and Sound, Programs and so on. Under the heading User Accounts and Family Safety, click 'Add or remove user accounts', then 'Create a new account'. Next, choose whether it will be a Standard user or another Administrator. Type in a name for the new user, then select 'Standard user' and 'Create Account'. On the next screen, click the user's icon if you want to change any settings; these include adding a password, setting up Parental Controls, changing the name or account type from Standard to Administrator or vice versa, or deleting the account altogether.

It's worth mentioning that Parental Controls won't function with any programs

installed on a **Fat** formatted hard disk partition – they only work with **NTFS**; these are different ways the computer organises files on the hard disk. If your PC came with Windows 7 already installed, your hard disk is most likely NTFS formatted, but that may not be the case if you upgraded from an older version of Windows. The way to tell is by holding down the 'Windows' key on your keyboard and pressing E (this brings up the My Computer browser window). Now click a drive, say C, then right-click and choose Properties. The pop-up window will show whether the file system is Fat or NTFS.

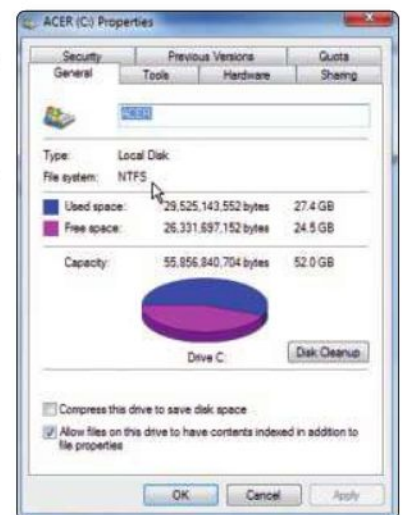
If you really need to set Parental Controls, converting to NTFS is straightforward and won't delete files you have on your hard disk. Conversion is a one-way process, though – there's no going back to Fat without reformatting. It's also important to back up any important files before performing any major operation such as this.

Shared folders

If you're on a network, Windows 7 allows you to share files, folders and libraries. The simplest way to connect two or more computers running Windows 7 is to set up a home group – this is a new feature and only takes seconds to set up. You can find out more about networks, and how they work with Windows 7 features like libraries on page 72 of this Ultimate Guide.

Now, you should have an idea of how Windows 7 helps you organise and manage your files. Over the page you can find out how to connect to the internet.

▲ Windows 7's home group feature is the simplest way to share files



▲ Parental Controls only work with NTFS

USEFUL KEYBOARD SHORTCUTS

Windows 7 makes it pretty easy to get where you want to go quickly using features such as Peek, Shake and Snap, as we saw on page 26. And your files are never more than a click away thanks to the Search box in the Windows menu and in every Explorer window. But there are also some useful keyboard shortcuts – most of them involving the Windows key. Here are some of the most useful:

Win+Spacebar: makes all windows transparent so that you can see the desktop.

Win+Home: clears all except the current window (like Shake).

Win+Up: maximises the current window.

Win+Down: restores a maximised window; another press minimises it.

Win+Left or Right arrow: docks the current window to the left or right of your screen. And

if you have two monitors connected to your PC, Shift+Win+Left or Right arrow moves the window to the left or right monitor.

Win+number (1 to 9): starts the program in that position on the taskbar.

Win+ the + or – key: puts the display into zoom mode, with options to magnify the whole screen, a strip along the top or within a rectangular floating 'lens'.

A matter of choice



It's now easier than ever to choose the web browser you want

Until the launch of Windows 7, if you used the Windows operating system, Internet Explorer and Microsoft's email program came installed. If you used anything else it was up to you to find it, so it's no surprise most people just used what they were given.

After much legal wrangling with the European Union over anti-competitiveness charges and fines, Microsoft stopped including IE and its email program with Windows 7. So now when you install Windows 7, you can use your choice of browser and email program. Here we'll take a look at the alternatives and give the pros and cons of each.

What's it all about?

If you want to use the internet, you need a browser – the window through which you view web pages and search engines. Many people get confused between the two. Browsers (www.whatbrowser.org/en) are programs such as Microsoft Internet Explorer (IE), Google Chrome and Mozilla Firefox, while search engines include Google, Microsoft's Bing, Yahoo and Altavista. The two used in conjunction help you find the information you want on the web. So, it may seem peculiar that you now need to install such an essential tool.

The reason Microsoft has not included IE with Windows 7 is because of what has been perceived as the software giant's monopolistic hold over software included with its **operating system**. Complaints from other companies

about the effects this was having on own their businesses started in 1993, when Novell said Windows Media Player (WMP) made it difficult for those trying to attract users to their own software. Sun Microsystems joined the fray in 1998 and the case widened further when the European Commission decided it would look at how Microsoft integrated its **streaming** media technologies with Windows. Eventually, Microsoft was ordered to release a version of Windows without WMP.

Next, the EC looked into other integral features of Windows, and in January 2009 announced it would investigate the bundling of IE with the operating system. In the EC's opinion, Microsoft's "tying of Internet Explorer to the Windows operating system harms competition between web browsers, undermines product innovation and ultimately reduces consumer choice". So, Microsoft announced it would release the European version of Windows 7 without IE.

Keeping up standards

It's not just pressure from the EC that's had an effect on browsers. Over the years, IE has gradually fallen out of favour with consumers and there were concerns about how Microsoft didn't adhere to web standards – technologies established by the W3C and other bodies to ensure all browsers can equally interpret web-based content. Many were also increasingly worried about IE's security, as Microsoft was constantly forced to fix vulnerabilities.

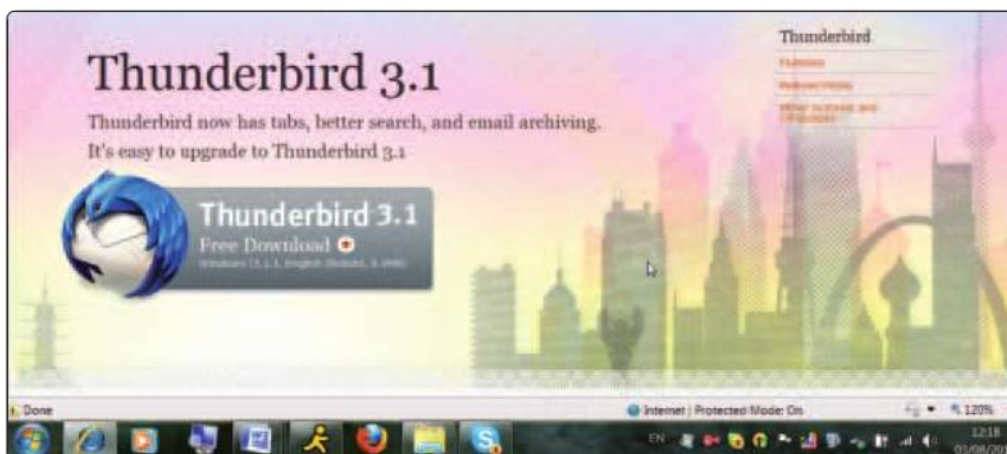
Rivals such as Firefox were quicker to introduce functions such as privacy features to make their browsers more attractive. As a

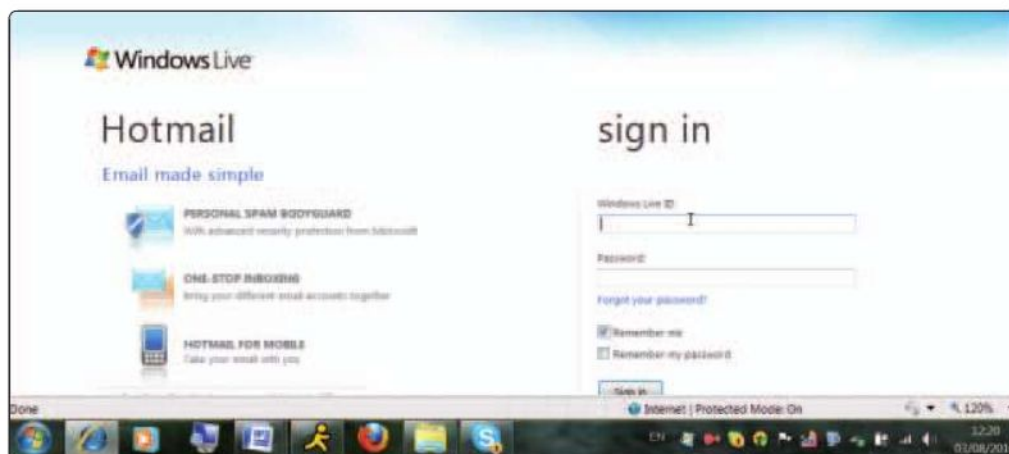
result, IE's position in the browser race dropped dramatically: in 2003, it had 95 per cent of the market share; its dominance has now been eaten way to around 60 per cent, although since the release of IE 8 June 2010 figures show it is staging a comeback.

What it means for you

Choosing a web browser before you can get online might sound difficult, but that's not the case – **downloading** one is easy, as we show you over the page.

▼ Mozilla's Thunderbird email can be used without the Firefox browser





▲ You can download Windows Live Mail easily by accessing the Microsoft Windows Live Essentials

After much criticism of its original plan not to include a browser, Microsoft backed down; it won't appear on the desktop but IE8 is included in Windows 7, along with a browser choice menu. This appears as a small white note **icon** on the desktop after installation. Clicking it opens up a notice that alerts you to install one previously saved to a device such as a USB key, clicking OK takes you to the menu where you can read about and install IE8, Firefox, Opera Safari and/or Google Chrome. For a more in-depth look at the pros and cons of these browsers, turn to page 36.

Email via the web

Microsoft has also dropped its two main email programs – Outlook Express and Vista's Windows Mail – so if you don't use an online web service like Gmail or Hotmail, you must install an email program as well.

The main reason for not including an email client seems to be the decision taken by many – including some **ISPs** – to offer email via the web. However, if you want an email program to run on your PC, there are many to choose from, and since they're free there's nothing to stop you trying as many as you like.

If you want to stick with something familiar, you can download Windows Live Mail by accessing the Microsoft Windows Live Essentials. The main drawback is that if you've never used this package, you must register – and Windows Live is a fairly large download.

Mozilla, the organization behind Firefox, has an email program called Thunderbird that you can use it even if you don't decide to use Firefox as your browser. Opera Mail, also known as M2, is built into the Opera browser. You'll find details on all three programs starting on page 42 of this Ultimate Guide.

Of course, there are others, such as Incredimail, Pegasus and Eudora, which are also worth having a look at.

Time to choose

We hope you're assured that there's no need to worry about choosing your own browser and email program, and you'll find plenty more information over the following pages. If you don't have a broadband connection, don't worry – we've included the installation files for many of the programs on our free CD, and it's also possible to download them at a library or cybercafe and save them to a **USB memory key** to install on your PC at home.

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Download Transferring files onto your PC directly from the internet.

Icon A small image used by Windows to identify a file or application.

ISP Internet Service Provider. A company that provides you with an internet connection – either for a fixed monthly fee or for the cost of local call charges.

Memory key A generic term used to describe thumb-sized USB storage devices.

Operating system Governs the way hardware and software components in a computer work together.

Stream Audio or video material that can be viewed as it is downloaded from the internet or transferred from another computer. Streaming media sometimes stalls if the source material is received slower than it is played back.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals, such as storage devices, to your PC.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

STEP BY STEP: USING BROWSER CHOICE IN WINDOWS 7

An important choice to make: your browser

Your browser is an important piece of software on your computer. It is what you use to surf the Internet. It's the window around the web sites you visit.

There are many browsers available, each with a variety of features. On the next screen, you can select and install any additional browser(s) you want.

Please Note: The browser choice update uninstalls your browser. Microsoft Windows Internet Explorer, from your taskbar, but you can get it back if you want. Click [here](#) to learn more.

Internet Explorer is still available from the Start/All Programs menu.

Before proceeding, please confirm that you are connected to the Internet.

STEP 1: When you install Windows 7, you'll see a small icon that looks much like a Word page. Clicking on it will bring up a notice in a window, telling you about your browser choice. Click on OK to take you to the menu.

Select your web browser(s)



STEP 2: This is the menu page, which shows the Internet Explorer 8, Mozilla Firefox, Google Chrome, Opera and Safari browsers. You can read more information about the individual browsers by opening 'Tell me more' or go straight to download by clicking on Install. Scroll to the right to see some more browsers.



STEP 3: We chose Chrome, but the process is similar for each browser. Once you click Install, you're taken to a page thanking you for downloading. Click Download Here, then Save. On the next screen, you choose where to store it: click Save, then by Run. When the install window appears, click Next. Once installed, click Finish.

Choosing the right browser



Internet Explorer isn't the only option these days. Here we explore top browser alternatives

It may not rule the roost the way it used to, but Microsoft's Internet Explorer (IE) is still the most popular web browser in the world, being used by about 60 per cent of all computer users. It gained that position by virtue of the simple fact that it was built into the Windows operating system, which meant most people didn't stop to think about some of the other browsers also available.

Even so, IE has faced strong competition in recent years from rivals such as Mozilla Firefox, and the more recently released Chrome from Google. That competition will only increase now that Microsoft has been forced by European Union legislation to introduce the new Browser Choice Screen (see page 34).

The Browser Choice Screen offers a selection of about a dozen different web browsers, but it focuses on five main ones in particular – IE itself, Firefox, Chrome, Opera, and Apple's Safari. Taken together, these browsers account for about 98 per cent of usage worldwide. We'll take a look at all five browsers here.

The leading browsers have become increasingly similar in recent years – they all provide features such as the ability to store bookmarks of your favourite web pages, for example. They all offer good security against hacking attacks and the ability to block annoying pop-up ads, and they allow you to customise by using 'extensions' or 'add-ons'.

Even so, you may find one browser that offers a particular feature you like. IE is still the safe choice – its biggest asset is its sheer familiarity, as most of us already know how to

use it. However, the latest version is faster and also provides improved security, which was perhaps its greatest weakness in the past. Firefox has access to a huge number of extensions that allow you to customise it to work the way you want. Safari is a typical Apple product with a slick interface and eye-catching graphical features. Google's Chrome puts a lot of emphasis on using tabs to organise multiple web pages. Opera may be the least well known of the big five browsers, but it's jam-packed with powerful and innovative features, such as voice commands that allow you to navigate the web by talking to it (well, in theory anyway).

It's also worth remembering that not all websites work well with all browsers. Some are designed to work with only one or two main browsers – online banks are often the worst culprits, as they tend to only cater for IE and Firefox. You may find it useful to install more than one browser so that you have an alternative available if there are problems with your online bank or other websites.

So let's take a look and see what's on offer from the various browsers, and decide which one will suit you best.

Apple Safari 5 (www.apple.com/safari)

Apple claims that Safari is "the world's fastest browser", and it certainly performs well when loading web pages – although the latest versions of IE and its other rivals have generally caught up by now.

However, like most Apple products, Safari's real strength lies in the slick interface design

that makes it quick and easy to perform common tasks.

Like most browsers, Safari allows you to open multiple pages simultaneously and organise them using tabs. It also handles bookmarks well, as its bookmark bar allows you to either store individual bookmarks or quickly group them together to create little pulldown menus containing all your favourite pages – one menu can contain a number of news services, and another favourite radio and TV stations, say.

There's also a 'top sites' feature that displays previews of your most frequently viewed pages with an eye-catching pseudo-3D perspective effect. Even the 'History' feature is decked out with fancy graphics, displaying recently viewed pages in a way that mimics the album artwork display in iTunes. But,

being practical, there's also a high-speed search option for the History feature that quickly locates any words that you type into the search box.

Safari 5 also introduced an interesting feature called the Reader. When you go to a web page that contains a particularly long piece of text, the Reader can reformat the web page to make it look like the pages of a book or magazine so that the text is more readable.

But while Safari's interface is very attractive, the program does lack a few features found in many of its rivals. It has a privacy mode to prevent other people from seeing what you've been browsing, but its parental controls and security features aren't as extensive as those of rivals like IE. Apple has only recently allowed people to develop 'extensions' that can add new features to Safari, so it

can't match the range of add-ons available for other browsers either. However, Safari does have one advantage over most of its rivals, as it also runs on Apple's iPod Touch, iPad and iPhone.

If you're using Safari on a Mac or PC, you can copy your all your bookmarks and tabs to your iPod/iPad/iPhone for instant access to all your favourite websites on your mobile devices.

Google Chrome (www.google.com/chrome)

Google's Chrome is very much the new kid on the block but it's already grabbed more than five per cent of the browser market, overtaking big names such as Safari and apparently slowing down the progress of Firefox too.

Google puts a lot of emphasis on basics such as speed and security, and Chrome

SAFARI



1. Top Sites

You can edit the Top Sites window to include just the websites you want to see.

2. Mini Menu

You can also organise multiple tabs into mini-menus for quick and easy access.

3. History Lesson

A fancy graphical view for your history list is included in this version of Safari.

4. Reading Room

The Reader button reformats long articles to make them easier for you to read.

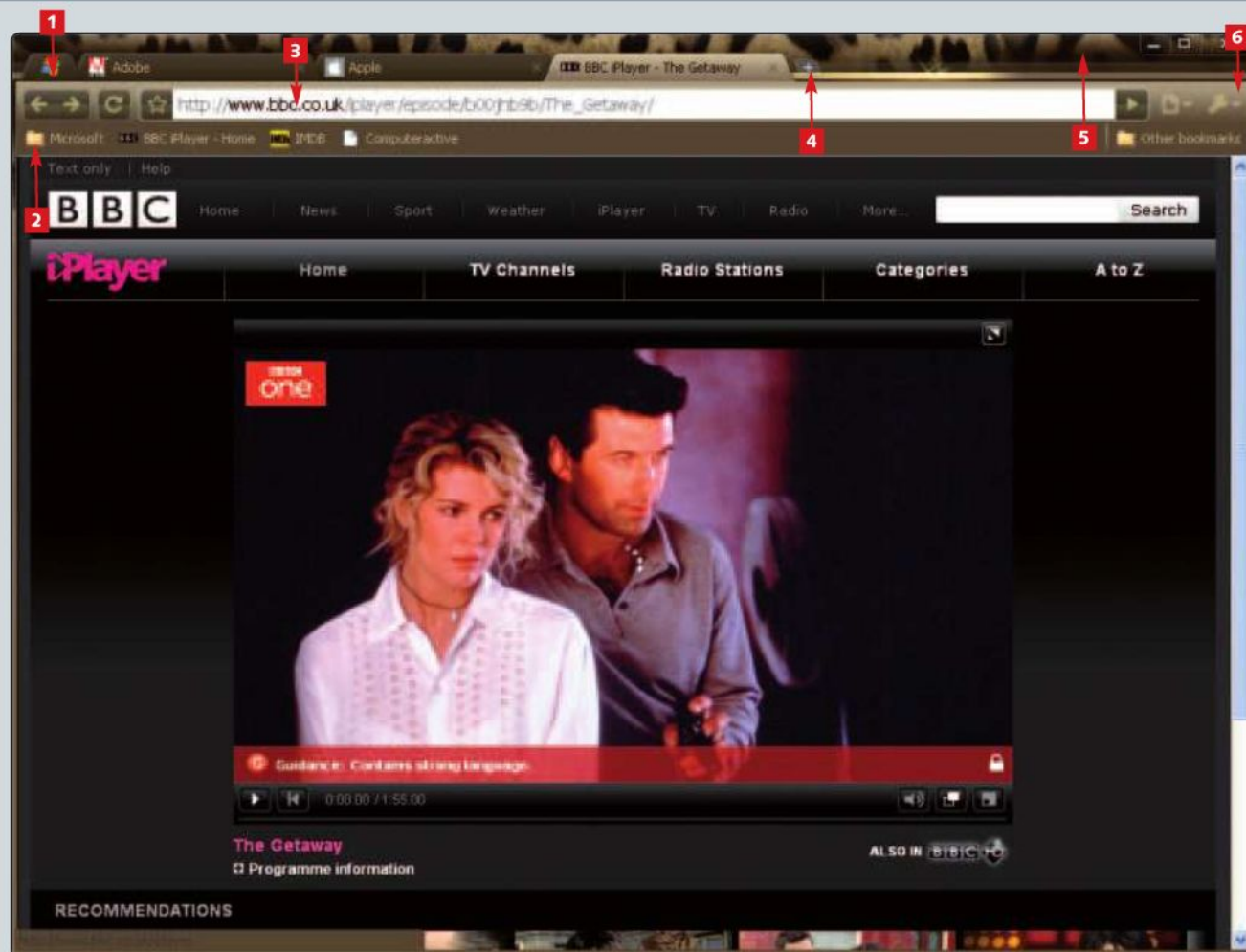
5. In Action

The Action menu allows you to activate features such as privacy mode.

6. Quick Search

The Search tool quickly locates key words in pages you've viewed recently.

CHROME



1. Top Tabs

Unusually, Chrome places tabbed pages at the top of the browser screen.

2. Bookmark Bar

You can organise bookmarks individually or in groups for quick access.

3. All-In-One

The 'omnibox' can be used both for entering addresses and performing searches.

4. Preview Pane

Clicking the '+' icon displays a quick preview of all your tabbed pages.

5. Screen Theme

You can customise Chrome's appearance and use extensions to add new features.

6. Mini Menu

Chrome replaces the Menu bar with couple of space-saving pulldown menus.

does feel pretty nippy as you surf from page to page during browsing sessions. It's also got a lot of security features, including an 'incognito' mode that hides your browsing history from prying eyes, along with **phishing** and **malware** protection. There's not much in the way of parental controls to block websites that are unsuitable for children, however.

Chrome has a stripped down interface that is designed to keep things simple. Instead of a menu bar containing the usual series of pulldown menus, Chrome places a couple of buttons on the right-hand side of the main toolbar that open dialogue boxes for the main options and settings. And instead of having separate boxes for entering web addresses and performing searches, there's a single 'omnibox' that allows you to enter either

an address or words that you want to search for. It's a clever idea, but can take a bit of getting used to at first, as you sometimes have to stop and think about exactly what you should type in order to locate a particular web page.

Its approach to using tabs is also a little unconventional. Tabs appear above the omnibox address bar, rather than below it (as is the case with most rival browsers). There's also a separate bookmarks bar below the address bar, and sheer force of habit caused us to sometimes click on the bookmark bar by mistake, as that's where we expected our tabs to be.

You can preview all your open tabs by clicking a button on the tab bar, or get a quick preview of individual tabbed pages by clicking on the tab and dragging it down into the main browser window.

However, we sometimes found ourselves opening tabs in a completely new window by mistake and felt Opera's option for previewing tabbed pages is more straightforward.

Chrome is a very efficient browser, but it can take a little while to get used to it, so is perhaps suitable for experienced users who are prepared to put a bit of effort into mastering a new browser.

Microsoft Internet Explorer 8 (www.microsoft.com/upgrade)

Internet Explorer has had pretty bad press in the past few years. Its position as the most widely-used browser made it the number one target for hackers, and it got a poor reputation for security.

However, Microsoft has made a big effort to address security issues with IE8,

which now provides solid protection against hacking attacks, malware and phishing sites that might attempt to get hold of personal or financial information. There's also an 'InPrivate' option that allows you to browse the web without storing any information about the sites you've visited, or passwords and other information that you might enter. This is handy if your work PC is used by other people, or if you're using a shared PC in a public location such as an internet cafe.

Microsoft has also worked hard to improve IE's interface, with a number of features for organising and viewing multiple web pages. As well as using tabs to open several pages simultaneously, you can also organise tabs in colour-coded groups to keep related pages together. We also like the 'Quick Tabs' button, which displays a small preview of your tabbed pages to remind you of their content. You can

add your favourite websites to the bookmark toolbar for instant access or if you don't want it to get too cluttered, you can add them to the Favourites pulldown menu instead.

IE also includes a number of 'accelerators' that allow you to perform tasks quickly – you can select an address on a web page and look it up on a map with a quick click of the mouse, or select a phrase and look it up in a search engine or get it translated into a foreign language. And while IE doesn't have the same range of customisation options as Firefox, Microsoft has developed a number of 'add-ons' that provide new features such as the ability to search Wikipedia or Ebay using the standard search option in the main toolbar.

Microsoft has responded well to increased competition from rivals such as Firefox, and the improved security features in this latest version do a good job of correcting its main

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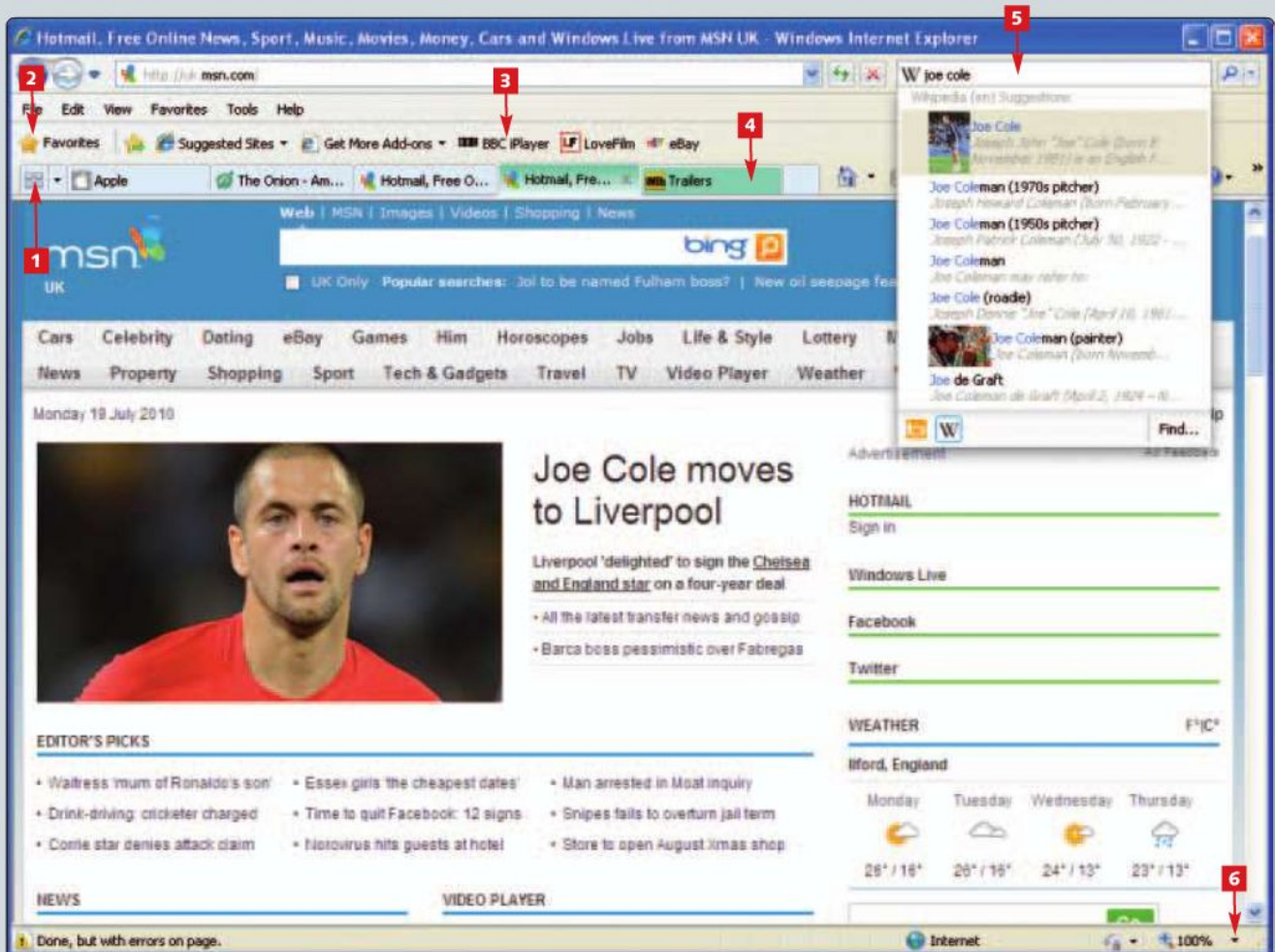
Compression The process of reducing a file's size by encoding the data.

Malware A generic term for software designed to perform harmful or surreptitious acts.

Phishing A form of internet fraud that tries to trick you into revealing personal details.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

INTERNET EXPLORER



1. Quick Tabs

The Quick Tabs button provides you with a preview of all your tabbed pages.

2. My Favorite

Click on the Favorites button to add a web page to your list of favourite sites.

3. Button Bar

You can store frequently used pages on the toolbar for instant access.

4. In Colour

Tabbed pages can now be organised easily into colour-coded groups.

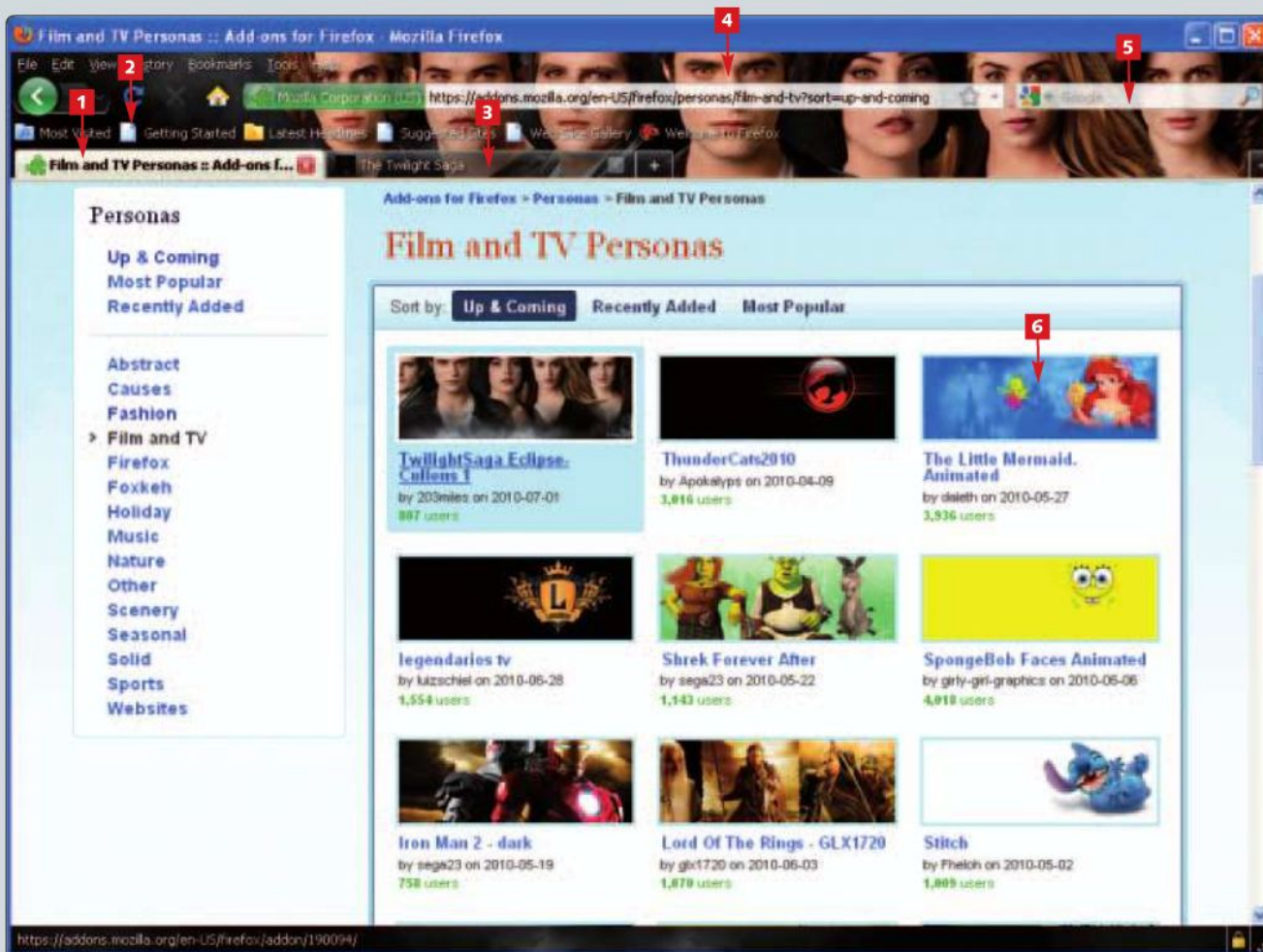
5. Add-Ons

IE can now use 'add-ons' to provide features such as Wikipedia searching.

6. Super Zoom

You can magnify web pages up to 1000% to examine maps and other graphics.

FIREFOX



1. Add-on Army

There are literally thousands of add-ons available for customising Firefox.

2. Home And Away

The new Firefox Home app lets you copy your bookmarks and tabs onto an iPhone.

3. Top Tabs

You can organise multiple web pages by using tabs.

4. New Persona

Personas allow you to customise the appearance of the browser.

5. Super Search

Powerful search tools include Google, Wikipedia, Amazon and Yahoo.

6. Animated Art

Some persona add-ons even provide animated graphics for the kids.

weaknesses. If you're already comfortable using IE, then you can continue to use it without worrying about the security problems that dogged it in the past.

Mozilla Firefox 3.6 (www.mozilla.com)

Firefox has been the main challenger to Internet Explorer in recent years, and is used by about one in four computer users. It initially made progress because it was considered to be more secure than IE, although Microsoft has tightened security on Explorer 8 quite a bit. Even so, Firefox's streamlined approach to browsing still has many fans.

The basic browser is very straightforward – it's fast and secure, and the latest version includes a privacy mode to prevent other people from

seeing where you've been browsing. It uses tabs to organise multiple open windows, and you can also save bookmarks and group them together to create a pulldown menu that provides instant access to lots of web pages. You can also label web pages with tags, such as 'sport' or 'music', then use the tags to search for relevant pages.

Similar features can be found in most browsers, of course, but Firefox's great strength is the huge range of add-ons you can use to customise it. There are thousands of add-ons available from the Firefox website, providing features such as language translation, searching on Amazon and Ebay, downloading Youtube videos and more. It's easy to install add-ons, too – the Firefox website organises everything into convenient categories

you can browse through – all you have to do is click the 'Add To Firefox' button to automatically install them. There are also 'collections' that gather sets of related add-ons, such as social-networking tools.

Another customisation option is the ability to add 'personas' – also known as 'skins' – that alter Firefox's appearance. If you're a Twilight or Shrek fan, there are personas that use images from these films. There are sports, seasonal themes, and bands and music personas, and even a lingerie persona. You can preview personas on Firefox's website by holding your mouse over any persona and watching as the browser temporarily applies the persona for you. This makes Firefox a good choice for those who want to experiment and go beyond the standard browsing features found in IE.

Opera 10.6

(www.opera.com)

Opera is probably the least well-known of the top five browsers, but it's fast, secure and jam-packed with features. Like Safari, Opera claims to be "the fastest browser on Earth", and it certainly feels very snappy when loading web pages. It's also got a special 'Turbo' feature that helps to improve speeds when browsing via slower network connections. This works by **compressing** files like photos and graphics so that they download more quickly, and can be genuinely useful when connecting to clogged up networks.

Opera may not have the pretty graphics of Safari, but its interface is very practical and efficient. The various toolbars are kept as small as possible to provide a clear view of your web pages. The

standard menu bar has been replaced by a single button that opens a pulldown box containing the main menu options, and there's a collapsible panel that can be hidden on the left-hand edge of the screen containing additional options, such as your bookmark list.

Like most browsers, Opera allows you to open and organise multiple web pages using tabs, but it also has a number of additional tab-related features, such as the ability to create 'follower' tabs that automatically open links on a particular page in their own separate tab. To help you sort through multiple tabs, you can view a quick preview of a page by hovering the mouse over its tab. There's also a 'speed dial' option that can display a preview of all your tabbed pages. If you find that you tend to juggle lots of web

pages all at once, you'll feel very comfortable with Opera.

And the fancy features don't stop there. You can use 'mouse gestures' – pressing mouse buttons and moving the mouse in various ways – to pan around web pages, zoom in and perform other tasks. There's a voice command feature that lets you control Opera by talking to it, although we struggled to get this working properly. More practical features include built-in email and Bittorrent, and a 'link' option that synchronises your bookmarks and favourites onto other PCs and devices.

The disadvantage of all these features is that Opera isn't as easy to use as some of its rivals. But, if you're a power-browser user who really likes to take control of your browsing sessions, then Opera should be your first choice.

OPERA



1. Tidy Tools

Opera's toolbars are kept as small as possible to provide a good view of your web pages.

2. Mini Menu

This small Menu button provides access to all of Opera's main features.

3. Preview Panel

Quickly preview your tabbed pages simply by hovering the mouse over the tab.

4. Super Speed

Speed Dial gives a preview of tabbed pages and fast access to your most used sites.

5. Search All Over

Opera's search bar can connect to Google, Bing, Ebay and Wikipedia.

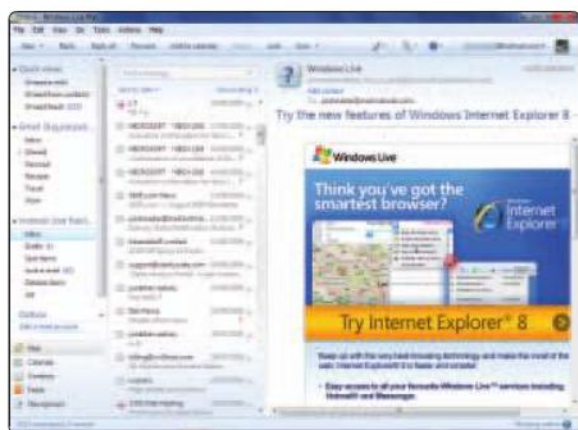
6. The Link

The Link allows you to sync your bookmarks with other computers running Opera.

Email in Windows 7



The days of Outlook Express are gone, leaving a range of free alternatives



▲ Windows Live Mail is very easy to use and integrates tightly with other Live services

The choice of email program used to be simple. Outlook Express would be bundled with Windows and that would be enough to get you emailing. But since there's no email program included with Windows 7, you have to take a more proactive approach. Although this requires more effort, the

rewards are greater since you can choose the right email program for your specific needs.

Dozens of email programs have been around in the past two decades, yet today there's no clear winner. The competition of yesteryear means software is now stable and secure with support for many email accounts, so private and work emails can be used side by side. Free programs have no adverts and lots of features that would have cost money in the past. To help make the right choice we're going to talk about the pros and cons of three popular email applications for Windows 7 that cost nothing.

Windows Live Mail

Windows Live is the umbrella name for the online services Microsoft provides. The Live Mail program, which comes as a part of the Live suite downloaded from <http://download.live.com>, isn't a true online utility since it installs onto your **hard disk** like an old-fashioned application. It does, however, liaise directly with Hotmail and MSN Messenger so online contacts and emails can be imported easily.

Calendar, contacts and **RSS feed** sections are provided below the main email accounts in a clear layout that can be arranged in different ways with different colours. Three icons in the top

right control pretty much everything, making it very intuitive for computer novices, although a traditional menu bar can be turned on for a greater degree of control.

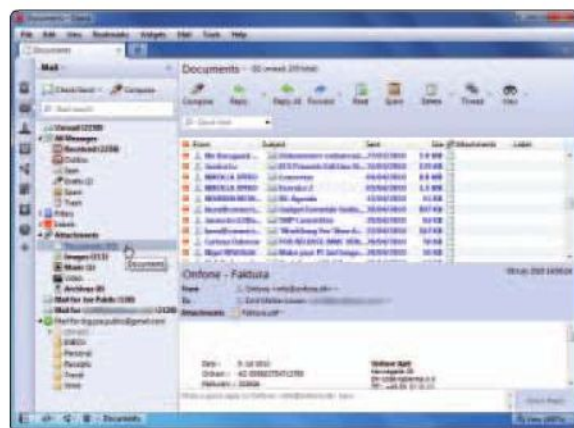
Emails can be imported from Outlook Express and Windows Mail, but if you're hoping to import emails from Outlook you should choose Thunderbird instead.

Signatures, photos and documents are easily added to emails but those who want to compose more professional-looking messages with tweaked layouts and fancy content will want to try Opera Mail or Thunderbird.

Opera Mail: the underdog

The basic features in Windows Live Mail, Mozilla Thunderbird and Opera Mail (www.opera.com/mail) are all very similar, so why pick a program such as Opera Mail that has the smallest number of users? Well, security experts often advise using software that isn't popular since hackers usually aim for the biggest target, so going for Opera Mail may reduce the chances of being affected by viruses and **spyware**.

There are other benefits to Opera Mail, too. It is tightly integrated into the Opera Browser, which removes clutter from the desktop and lets it open emailed web links more smoothly than any other program. It



▲ Opera has some unique features with great browser integration



▲ Thunderbird has loads of features thanks to third party add-ons

also allows you to sort and find emails through a system more like a **database** than traditional folders of messages.

Attachments are handled with a special menu that divides all files ever received into categories such as images and music. Those accessing emails with a **3G dongle** or a slow internet connection will also appreciate Opera Mail's low **bandwidth** mode, which only fetches the first 100 text lines of an email, making it quicker and less wasteful if you have a bandwidth cap.

The downside with Opera Mail is that it uses a bit more system memory because the Opera browser opens alongside the email program, so older computers may be less responsive. You can learn more about how to use it on page 48 of this Ultimate Guide.

Thunderbird for fancier emails

The sibling of the Firefox browser, Mozilla Thunderbird (www.mozilla.com/messaging.com), looks a bit more complicated when compared to the pretty Windows Live Mail. However, it's inevitable that Thunderbird looks more advanced because it is more advanced. Extra functionality includes more formatting options (such as adding a table to emails) and **HTML** editing for advanced email composing.

Thunderbird is **open source**, so it isn't shackled to one of Microsoft's stringent licences and anyone can develop extras for it. These extras are called add-ons and, on a basic level,

they provide upgraded visual themes to suit different tastes. The more advanced add-ons enable features such as network calendars to share schedules, advert blocking and email encryption. Gmail users may also be interested in some of the Google compatible add-ons that can synchronise contacts between Gmail and Thunderbird.

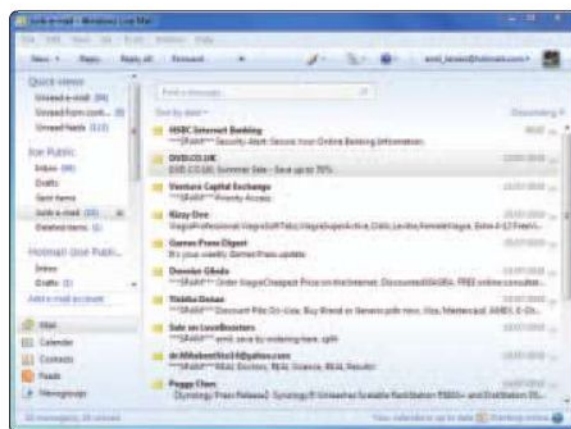
Thunderbird Portable is another invention made possible by the open-source licence. A variant of Thunderbird, it installs onto a removable hard disk and can be run by plugging it into any Windows computer. This means you can always have your emails in your pocket.

Have a look at our Thunderbird Workshop on page 46 to learn how to use it.

Dealing with junk mail

Windows Live Mail has a decent **spam** filter that sifts all emails without any need to set it up. So if you don't want to spend ages sorting through spam, Windows Live Mail excels. It can end up removing legitimate emails on its default settings, but these can be changed if the wrong emails are getting labelled as spam.

Thunderbird and Opera Mail have adaptive junk filters that learn what you consider to be junk, but these can be time-consuming and you have to spend time teaching them what you consider junk and what you don't. A better method for many may be to enable anti-spam software on your email provider's server, if it offers the option.



JARGON BUSTER

3G dongle A USB stick that provides internet via mobile phone masts.

Bandwidth Defines the speed of an internet connection.

Database An organised body of related information.

GB Gigabyte. A measurement of storage capacity, usually for hard disks.

Hard disk The permanent memory in a computer, where Windows and programs reside.

HTML The code behind web pages and emails.

Open source Free software that allows anyone to edit the program code.

RSS feed Regular news updates from news and blog websites.

Signatures A small bit of text at the end of an email, often containing contact details of the sender.

Spam Junk email sent to large groups of people.

Spyware Malicious software that is throws up adverts on a computer, causing it to slow down.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

◀ Windows Live Mail's junk filter is the best for computer novices

GOOGLE'S VISION

If Google gets its way, traditional email programs – like all traditional programs – won't exist in the future. Instead all our programs and files will be stored on a Google website and you'll have round-the-clock access to it from any computer. Google has given us a glimpse of so-called 'cloud' computing with its online

office tools and its big email service, Gmail, which currently provides **7GB** online storage – enough for a million small emails.

So why aren't we all using this service and saving disk space on our computers? One reason is that poor wireless coverage and interruptions of internet service mean

round-the-clock internet access isn't a reality yet. It can also be easier to manage contacts and email attachments in a traditional email program. So, for now, combining a Gmail account with one of the email programs mentioned gives you the best of both online and offline functionality.

Get started with Windows Live Mail

Configure Windows Live Mail to access multiple email accounts and much more

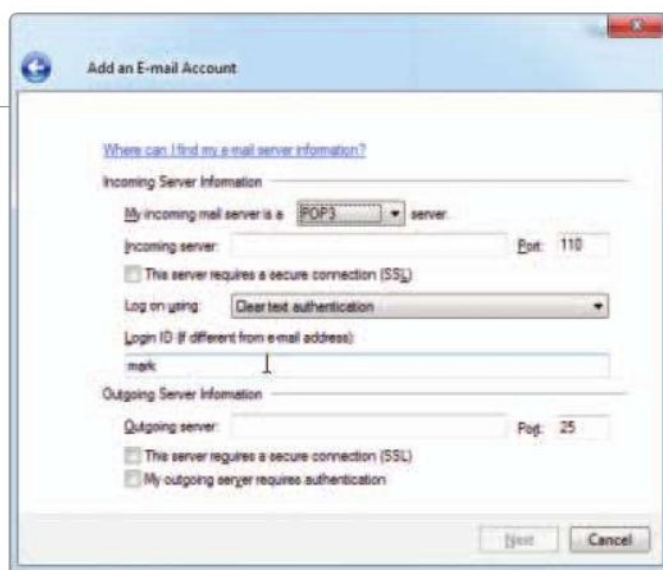
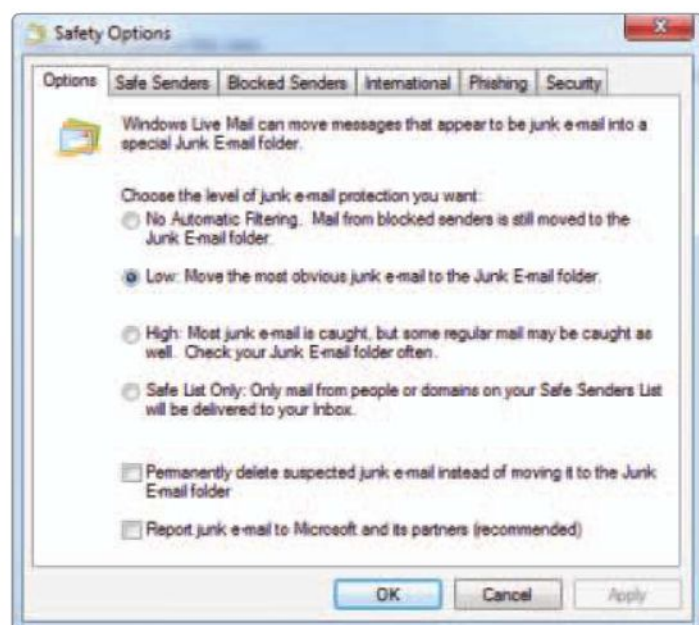
Outlook Express and Windows Mail have long been popular components of the Windows **operating system**, although neither is present in Windows 7. However, by installing Windows Live Mail, you can gain access to a powerful set of tools that can be used not only to send and receive emails, but also to subscribe to **RSS** feeds, manage contacts, keep a calendar, access online **newsgroups** and more.

If you already have a Microsoft **webmail** account such as Live Mail or Hotmail, Windows Live Mail can make use of your account information to provide access to your contact list as well as your inbox online.

There are also a number of safety options that are available to help protect your email account against **spam** and **phishing** emails. Read on to find out how to get started.

STEP 1

IF YOU ALREADY HAVE A WINDOWS LIVE ID, such as a Hotmail account, the associated email address can be quickly added to Windows Live Mail. Click the Sign In link in the upper right-hand corner of the screen and enter your email address and password; there will be a slight pause while online messages are downloaded so that they can be read in the program. Extra email addresses can be easily added to the program. Click the Mail button in the lower left of the screen and then click the 'Add e-mail account' link above this. Enter your email address and password, selecting the option to manually configure settings if required, and click Next. After supplying the required **server** details and password – check with your internet service provider (**ISP**) or email provider for this information – the account is ready for use.



STEP 2

WINDOWS LIVE MAIL WILL DO A GREAT DEAL to offer protection against spam and malicious emails, but a little configuration may be required. Click the button to the left of the question mark in the toolbar and select Safety Options from the menu that appears. Use the Options tab to choose how the program should treat junk mail, selecting the Safe List Only option if you would prefer to vet all messages that are received. Move to the Safe Senders tab and use the Add button to enter trusted email addresses. Click OK and then Options from the menu that has just been used. In the Send/Receive Message section, choose how frequently the program should check for new emails (the default setting is every 30 minutes).

STEP 3

IF YOU HAVE SIGNED INTO A WINDOWS LIVE ACCOUNT, Windows Live Mail can retrieve online calendar information, which can be viewed in the program by clicking the Calendar link to the lower left of the screen. Additional calendars can be created to keep appointments separate; click the 'Add calendar' link, enter a name and choose the colour that should be used for events added to this calendar. Appointments can be added in a couple of ways; the first option is to click a calendar in the list to the left of the screen and select 'New event' from the menu. Alternatively, double-click a date in the main window and, while adding reminder details, use the **dropdown menu** to choose which calendar the appointment should be added to.

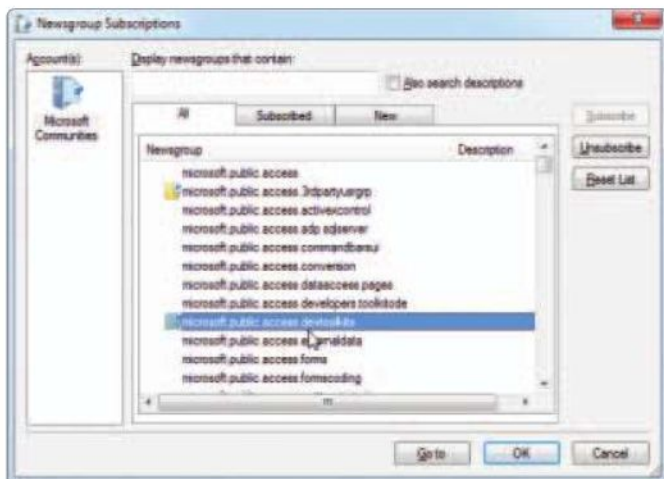


STEP 4

THE CONTACTS SECTION OF WINDOWS LIVE MAIL is useful when it comes to sending emails, but it can also be used as an address book. Existing contacts associated with your Windows Live ID are automatically displayed in the program, but others can also be added. Contacts can be organised into groups by creating categories; click the arrow in the New button and select Category from the menu before entering a suitable name. A new contact can be added by clicking the New button and filling in the form that is displayed. The contact will be added automatically to whichever category was selected at the time, but can be copied and moved between categories by dragging and dropping.

STEP 5

RSS FEEDS PROVIDE A GREAT WAY OF KEEPING UP TO DATE with the latest content of specific websites and **blogs** without constantly visiting the sites in question. When browsing the internet, sites offering an RSS feed are indicated by an orange **icon** in the Internet Explorer toolbar. Click this button to view the feed and use the Subscribe option to add it to Internet Explorer's Feeds folder (it will also be automatically added to the Feeds section of Windows Live Mail). Feeds can also be added to the program by copying the relevant feed's address, clicking the 'Add feed' link and pasting in the address. The latest updates will be downloaded automatically, but a manual update can be performed by clicking the Sync button in the Windows Live Mail toolbar.



STEP 6

MOVE TO THE NEWSGROUPS SECTION of Windows Live Mail and the Microsoft Communities section will be automatically highlighted. Click the View Newsgroups button at the top of the program window to see a list of the Microsoft newsgroups. Browse the list and double-click the name of a newsgroup to subscribe; click OK when you have chosen everything you want to subscribe to. Individual newsgroups are listed to the left of the screen and can be browsed in much the same way as email messages. Use the New and Reply toolbar button to make a new post or reply to existing threads. By clicking the 'Add newsgroup account', you can add other newsgroups and subscribe to ones that interest you by using the same method.

Set up your email in Thunderbird

SOFTWARE
ON THE CD



How to start sending and receiving emails with Mozilla's email program

Mozilla Thunderbird has become one of the most popular email programs around. It's easy to use, free and supports many different types of email accounts.

It doesn't take much to use multiple email addresses at once in Thunderbird either, so work and private addresses can be used side by side.

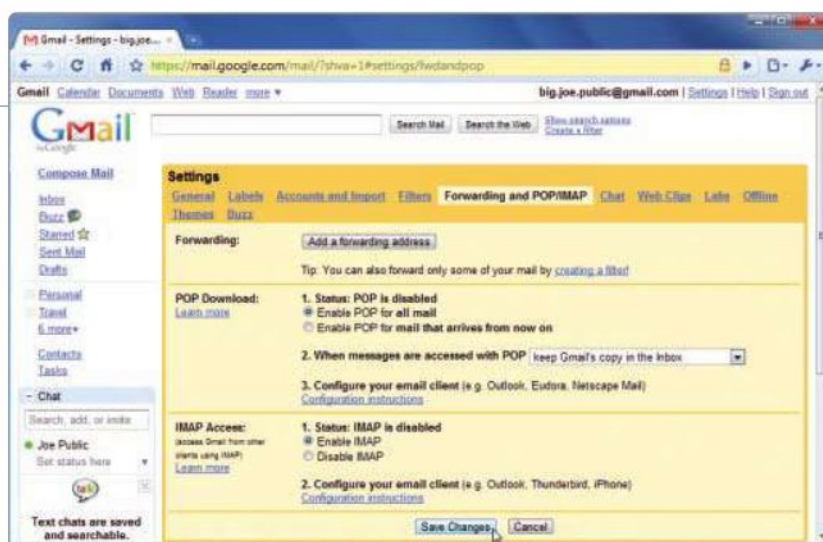
Since there's no email program with Windows 7 you have to

choose one yourself and Thunderbird has the fewest growing pains, with good support for importing contacts and emails from all other major emailing applications.

Thunderbird is on our free CD disc or you can download it by browsing to www.mozillamessaging.com, so grab a copy as we go through the basic steps to send and receive emails with it in Windows 7.

STEP 1

TO FOLLOW THIS WORKSHOP you'll need your email username and password details to hand, as well as a working internet connection. In our examples we're going to use a Gmail address with Thunderbird. The process is the same for all other email addresses but, for webmail like Gmail or Yahoo, ensure **Pop** or **IMAP** is enabled. For Gmail this can be done by logging onto its website and clicking Settings then 'Forwarding and POP/IMAP' and checking the options called 'Enable POP for all mail' or 'Enable IMAP'. IMAP is the more reliable option and provides quicker email updates.

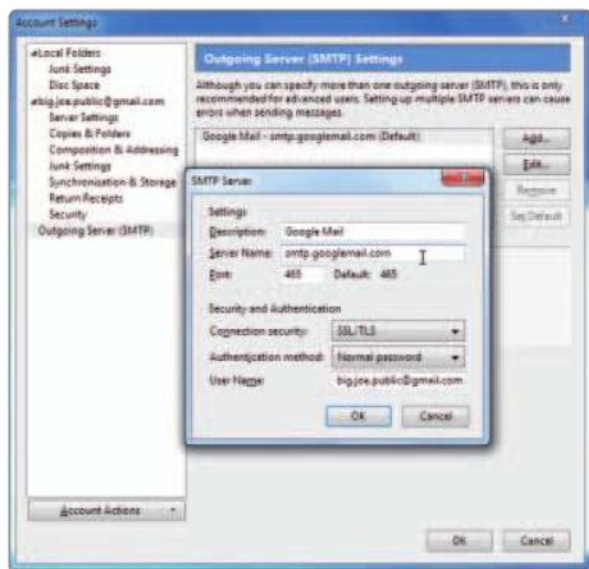


STEP 2

OPEN THE THUNDERBIRD INSTALLER and click Run when prompted. Click Next on the following screens all the way through until the end. Once installed, open Thunderbird by clicking on the Windows Start button, selecting All Programs then Mozilla Thunderbird and Mozilla Thunderbird again. When Thunderbird first opens, click 'Create a new account' on the main screen. Fill in all the fields, typing in your email account's password in the password field and ensuring the Remember password box is ticked. Then click Continue. Thunderbird will now try to guess your internet settings. If you see two green lights next to the Incoming and Outgoing fields, Thunderbird has guessed correctly, so click Create Account. If you don't see the lights click, Manual Setup.

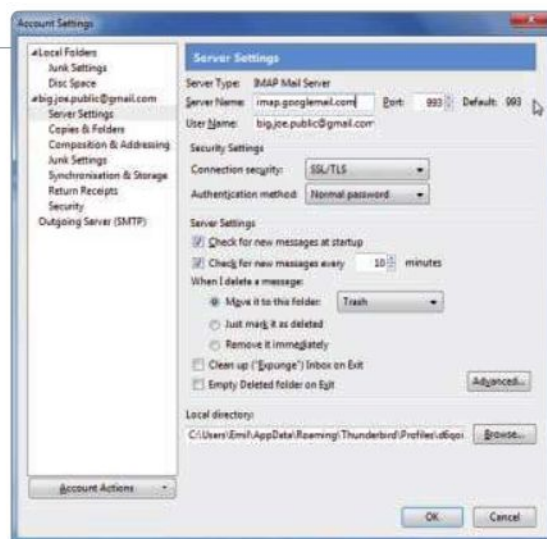
STEP 3

FOR MANUAL SETUP fill in the **server** name and **port** fields using your incoming email server settings. Most email services use **Pop3**, in which case the server name will probably look like pop.youremail.com or mail.youremail.com and the port field will usually be 110. Imap services have the form imap.youremail.com and usually use port 143. Check these details with your email provider as they must be correct. If your email account supports security, select the 'Connection security' menu on this screen and pick the relevant standard. If you are unsure about which is right, leave it as None.



STEP 4

ONCE THE INCOMING SETTINGS ARE ENTERED, click 'Outgoing Server (SMTP)' in the left pane. Select the default outgoing server and click edit. Just as with the incoming settings, the server name and port fields must be filled in and there is also an optional security menu. Most outgoing servers have the form smtp.youremail.com with port 25. When done, click OK and OK again to go back to the main Thunderbird screen. Additional email accounts can be added by selecting Account Settings from the Tools menu, followed by Account Actions and Add Account, then following Steps 1 to 4 again.



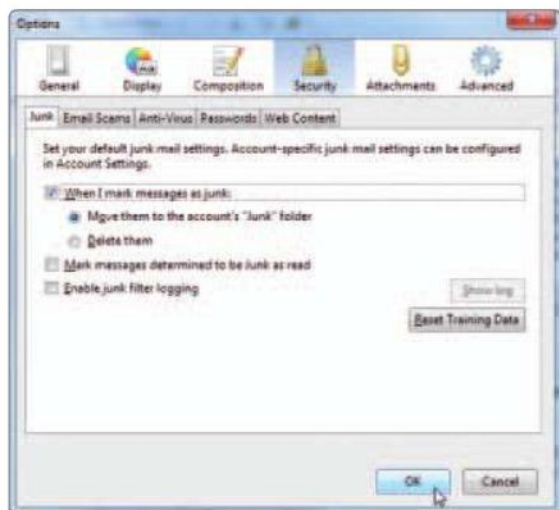
STEP 5

EMAILS ARE RECEIVED EVERY 10 MINUTES, using the default Pop3 settings, or by clicking the Get Mail button. To send an email, click the Write button. Type the email address of the recipient in the To field, the email heading in the Subject field and the message in the white space below. Thunderbird cleverly remembers email addresses you send to and eventually figures out the names behind each address so, as time progresses, you only need to type in a name rather than a full address. Click the Attach button to add documents and archives to emails, while photos can be dragged and dropped into the white message space. The format bar lets you change font, size and colour of the message to spice it up.



STEP 6

THUNDERBIRD HAS AN ADAPTIVE JUNK FILTER which learns what you decide is and isn't relevant email. To start the junk filter learning your preferences, highlight the **spam** emails and click the Junk button. Spam can be moved automatically into the junk folder (which is listed under the inbox) by clicking Options from the Tools menu, then selecting the security tab and ticking the box next to 'When I mark messages as junk'. As the junk filter learns, you should check the junk folder for legitimate mail, especially when you've just started teaching it, since it may get some decisions wrong and needs you to point out the good stuff. Imap accounts sometimes don't work well with Thunderbird's junk filter, but they tend to have spam filtering themselves, so get in touch with your email provider and check with them.



Set up your email using Opera

SOFTWARE
ON THE CD



How to set up an email account, send and receive mail and search your inbox

In the feature on page 42, we outlined some of the features of Opera Mail. Now it's time to try it out for yourself. In this Workshop we'll show you how to set up a new mail account, send and receive emails and use some of Opera Mail's other features.

Opera Mail is an integral part of the Opera browser, so to get started you will need to install it from our free disc, or download it from www.opera.com.

To setup Opera Mail, you will need some information

relating to your email account, including your email address, username, password and the incoming and outgoing mail servers. If you don't have this information, your email provider will be able to give it to you.

It's also worth pointing out that if you decide to continue using Opera Mail, you don't necessarily have to use Opera to browse the internet. Instead, you could have Firefox set as the default browser and only open Opera when you want to access your email.

STEP 1

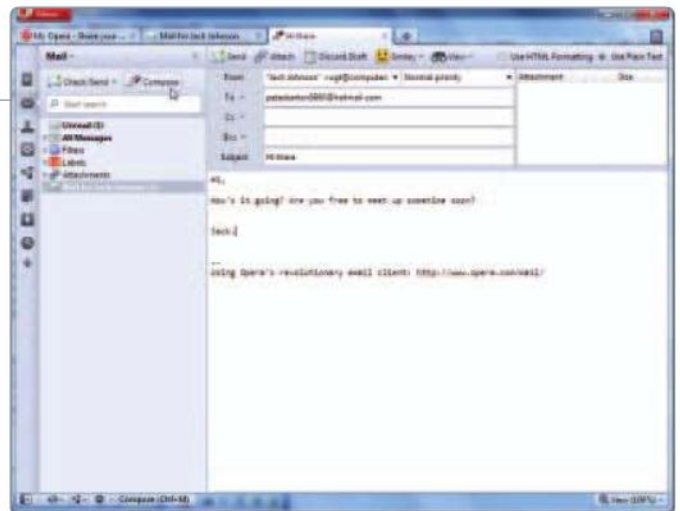
WITH THE OPERA WEB BROWSER INSTALLED, click on the red Menu button in the top-left corner and select 'Mail and Chat Accounts'. If no account has been created, a message will appear asking whether you want to set one up; click Yes to create a new account. Alternatively, if one or more email accounts are already present, they'll be displayed in a list; click the Add button to create a new one. Select Email as the account type and then enter your name and email address (you can leave the Organization box blank). Next, enter your mailbox login name and password. Unless you know otherwise, leave the email type as **Pop3**.

STEP 2

OPERA MAIL WILL NOW ASK FOR YOUR INCOMING MAIL SERVER. If you're not sure what your incoming server is, it's best to contact your email provider as they will be able to give you the necessary details. Your email provider should also be able to tell you whether you need to select the 'Use secure connection' box. If you want all messages to be removed from the mail server as soon as they're downloaded to Opera Mail, remove the tick from the 'Leave messages on server' box. Next, enter your email's outgoing server; this is often, but not always, the same as your incoming server.

STEP 3

TO CREATE A NEW EMAIL, click on Mail from the bookmark list at the very left of the Opera Mail window and then click on the Compose button. A new Compose Message tab will now appear. This follows the same format as most other email applications, with To, Cc, Bcc and Subject fields all available. You can also add files to your email by clicking the Attach button at the top. To check for new emails as well as send any emails currently in your outbox, simply click the Check/Send button located next to the Compose button on the left.

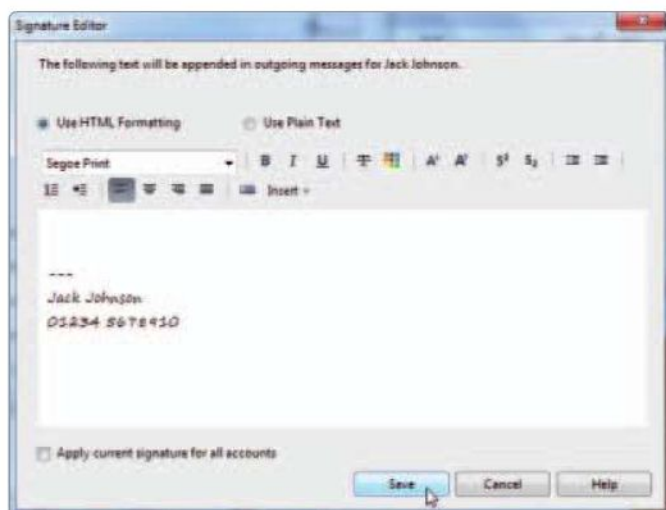


STEP 4

IF YOU'RE TRYING TO LOCATE A PARTICULAR EMAIL, it's possible to quickly search your inbox and other folders. Click on the red Menu button, select Mail and then click 'Search...'. The Search window will now appear. In the Search box, enter the word or words you want to search for. The 'Search in' dropdown menu box allows you to only run the search on specific sections of the emails, such as the To or Subject fields, while the 'Only search in' list lets you narrow the search to specific email folders such as your Sent items. Click OK to run the search and all relevant emails will be displayed.

STEP 5

OPERA MAIL INCLUDES A FEATURE that lets you add labels to individual emails, making it easier to categorise your inbox and flag up important messages. To add a label to an email, right-click the email in your inbox, click Label As and then choose the most appropriate label from the list. When you've finished adding labels, head to the left section of the Opera Mail window, click on Labels and then click on one of the labels in the list. The mail window will now only show those emails with that specific label, allowing you to restrict the view to those that need replying to, for example.



STEP 6

BY DEFAULT, OPERA ADDS A BRIEF NOTE at the bottom of each email you send. This is known as an email signature and it can easily be changed by clicking on the Menu button in the top-left corner of the Opera window and selecting 'Mail and Chat Accounts'. Highlight your email account from the list and click Edit. In the window that appears, click on the Outgoing tab and, at the bottom, click 'Edit signature'. By clicking on the HTML Formatting option, you can create a signature with different fonts, colours and other settings. All that's left is to edit the signature text (or simply delete it) and click Save.

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Our guide to signing up to Facebook

www.computeractive.co.uk/2260444

Our two-part Workshop shows you how to sign up, find friends and family and manage your privacy settings

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Wall Info This Issue Get a free...

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Attach

Computeractive While we're on the subject of computer... these are the 10 most common misconceptions about them - see if any come as a surprise to you.

Tag 10 myths about your consumer rights

www.computeractive.co.uk

Think you know your rights when shopping? Find out the facts from Nelson.

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3 people like this.

Pat This is one of the reasons I love Computeractive. Reliable advice that applies to everyone, in plain English. Well done and thank you.

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Computeractive We try our best - glad to hear you find the magazine useful. Paul.

18 hours ago · Like · Flag

John That is interesting, one thing was new to me

18 hours ago · Like · Flag

Write a comment...

Computeractive VIDEO: We've reported several times on the companies that cold-call and claim there's a problem with your PC. In this exclusive video we call one and record exactly what happens, showing how they find non-existent "infections" on your PC.

We call the Windows Service Centre - 23 Jul 2010 - Computeractive

www.computeractive.co.uk

A Computeractive reader was cold-called by the "Windows Service Centre" - we called them back to see what they do, and filmed the results.

July 23 at 3:52pm · Comment · Like · Share

Tim Smith and 11 others like this.

View all 18 comments

Computeractive I absolutely agree, Richard. There are lots of vulnerable people who own PCs that need to be warned about these fraudsters. We're working on an investigation into the 'company' we think is behind it and it has been quite depressing to see just how unscrupulous they are. More details soon so

We call the Windows Service Centre - 23 Jul 2010 - Computeractive

www.computeractive.co.uk

A Computeractive reader was cold-called by the "Windows Service Centre" - we called them back to see what they do, and filmed the results.

Chris I've been called 3 times this week so far. One Indian gentleman called me a fool for not taking him up on his offer. Another hung up when he realised I was obviously more computer savvy than him.

July 23 at 3:53pm · Like · Flag

Ant Your Windows Update icon was showing though - you should click on it and follow the instructions :-)

July 23 at 4:52pm · Like · Flag

Computeractive Ha - thanks for the Windows Update warning :) That was a virtual PC that we set up the other week and filled with software to make it look like a normal home PC (hence Incredimail, Firefox, AVG etc).

July 23 at 5:07pm · Like · Flag

Sheila I received one of these calls last week and hung up as I knew I hadn't reported a slow running computer, but I can quite see how someone with less experience could be taken in.

July 23 at 8:24pm · Like · Flag

Richard it up to us who can find our way around a computer to warn the less able without sounding smug

Saturday at 2:17am · Like · 1 person · Flag

1 photo by others · See All

Links

3 of 101 links · See All

Top 10 myths about your consumer rights

6-10pm Jul 25

Office of Fair Trading wants clarity for online consumer rights

6-10am Jul 25

How the internet works

3-10am Jul 25

July 23 at 10:46am · Comment · Like · Share

2 people like this.

Martin There's me thinking that the current iPhone 4 would be a good contender.

July 23 at 11:05am · Like · 4 people · Flag

John That's a really good case of a genuinely good idea, until somebody really thought about it!

July 23 at 5:04pm · Like · Flag

Phil For those that want everything even if it is a complete waste of money plus energy to make it.

Sunday at 5:00pm · Like · Flag

Write a comment...

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KEY FEATURES

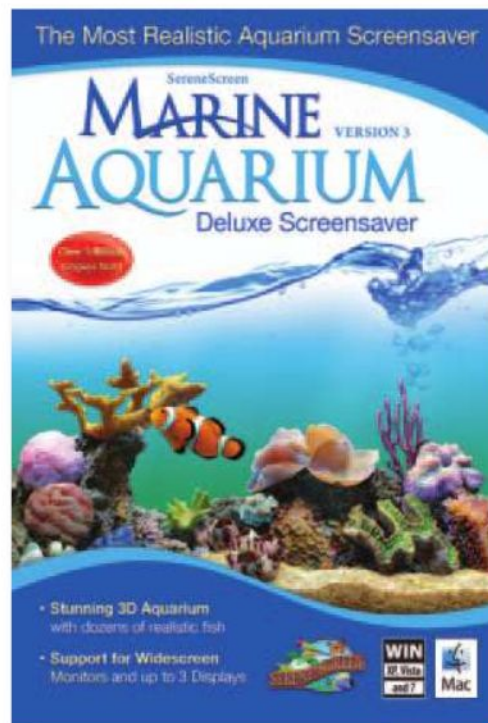
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(CODE RD88)

Access all areas



Find out how Windows 7 makes viewing, tweaking and installing peripherals easier than ever with the new Devices and Printers tool

Providing quick access to all peripherals attached to your computer, Windows 7's Devices and Printers feature is a powerful tool that's refreshingly easy to use. Similar to the Printers feature found in Windows XP and Vista, Devices and Printers makes it much easier to review, manage and install all types of hardware.

As well as displaying what hardware is currently attached via both wired and wireless connections, it also allows you to see which devices are working properly, as well as those that are currently disconnected or need attention. You can even add new printers and other hardware with the click of a button.

The Devices and Printers tool also includes a feature called Device Stage. It doesn't work with all hardware, but for those devices that are compatible, it provides a selection of settings tailored to that specific item.

In this article, we'll tell you everything you need to know about the Devices and Printers feature and, in the Workshop that follows, explain how to use it to add a network printer.

Easy to use

Before looking at the Devices and Printers tool in depth, it's important to understand that it will only show hardware that's attached to your computer externally, such as printers, **USB** drives and digital cameras. Internal hardware, such as the computer's graphics card and hard disk, won't be displayed.

If you want to view your internal hardware, it's best to use Windows 7's Device Manager,

which can be accessed by clicking Start, right-clicking Computer, selecting Properties and then clicking on the Device Manager link on the left of the window that appears.

Perhaps the best feature of Devices and Printers is that it's extremely easy to use, with each device being represented by a large icon. If you only see small icons or a simple list, try adjusting the view by pressing Alt, clicking the View menu and selecting Large Icons.

Depending on the type of devices attached to your computer, the display will be split into two or more sections; these can be collapsed and opened by clicking on the small arrow next to the section name. More often than not, there will be two sections: 'Devices' and 'Printers and Faxes'. You may also notice a section labelled 'Unspecified', which is where Windows puts those devices that it doesn't have full details about.

Improved icons

To make it easy to see what each device is, Windows 7 assigns an appropriate icon, some of which will be actual photos of the device in question. If an icon appears greyed-out, it means that particular device is either switched off or not currently connected. You may also notice a small symbol at the bottom-left corner of an icon, such as an exclamation mark (this indicates there's a problem) or a small image of two people (meaning the device is available to be shared with other computers on your home network).

Further information about a device, including details of any problems that might be affecting its performance, can be obtained by clicking on the icon; the bottom section of the Devices and Printers window will then display details such as the device's name, manufacturer and its current status. If a device has an exclamation mark next to it, you can run Windows 7's Troubleshooting **wizard** from within the Devices and Printers window; to do this, simply right-click the device's icon and select the Troubleshoot option.

▼The new Devices and Printers tool features large, detailed icons



Right-clicking on a device will bring up a variety of other options for you to choose from; the precise list will depend on the type of hardware in question. For example, right-clicking the icon for your keyboard will display a shortcut to change its regional settings, while right-clicking the monitor's icon allows you to go direct to the Display Settings window. Depending on the type of device, there may also be other options, such as links to the manufacturer's support page.

Device Stage

Some newer devices will be compatible with Windows 7's Device Stage tool, which can be accessed by double-clicking the hardware's icon. If Device Stage is available, a new window with options specific to that device will appear; you should also see a picture of the device on the left side of the window. Double-clicking on an icon for a piece of hardware that isn't compatible with Device Stage will simply take you to the Properties window for that device.

Although the Devices and Printers window is great for showing you the devices that are already connected to your PC, it can also be used to add new hardware, such as a phone. Two buttons sit at the top left of the window – 'Add a device' and 'Add a printer'. In reality, it's unlikely that you'll need to use the 'Add a

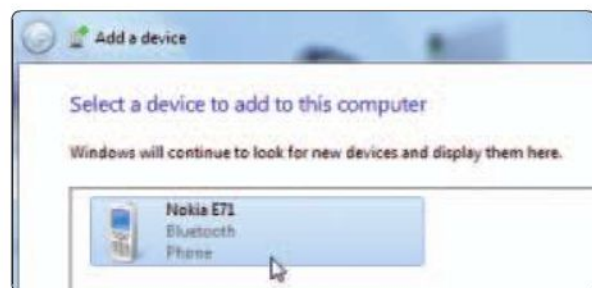


▲ Right-click on a malfunctioning device to run the troubleshooting wizard

device' button since Windows 7 will automatically add them as you attach them. That said, 'Add a device' can be useful when pairing a **Bluetooth** phone with your computer, for example.

To add a Bluetooth phone, ensure that your PC has a Bluetooth adapter and that the phone's Bluetooth option is switched on; you will also need to make sure the phone's Bluetooth setting is 'visible' or 'shown to all'. Now click the 'Add a device' button and, after a short wait, Windows will discover your phone and display it on screen.

If you connect a printer to your computer via USB, more than likely you will not need to use the 'Add a printer' button because, like other devices, Windows 7 should be able to locate it automatically. However, you will need to use this option if you want to access a printer that is connected to another computer on your network (see the Workshop on page 54 for more information).



▲ Devices and Printers can be used to add hardware such as a Bluetooth mobile phone

Everything in one place

As we've demonstrated here, Windows 7's Devices and Printers feature allows you to quickly find out what hardware is attached to your PC and will also help you adjust device settings, troubleshoot problems and install new hardware. In the Workshop over the page, you can find out exactly how to add a network printer using Devices and Printers, as well as see some of its other features in action.

JARGON BUSTER

Bluetooth A technology that allows devices (computers, phones, printers and so on) to communicate with each other wirelessly over short distances.

Peripheral A device, such as a printer, connected to a PC.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals, such as storage devices, to your PC. Devices can be added or removed while your PC is switched on.

Wizard A step-by-step process that helps you choose settings.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

HARDWARE DRIVERS EXPLAINED

Each piece of hardware attached to your PC (be it a printer, mouse or graphics card) requires its own driver, which is essentially software that tells the computer how to interact with a specific piece of hardware.

A great feature of Windows 7 is that it will attempt to search and download drivers for you. However, if you have a piece of hardware that Windows 7 can't find a driver for, it's best to head to the manufacturer's website – look

for a section on the site labelled Support or Downloads and then follow the on-screen instructions (see inset for example).

Although most hardware has Windows 7 drivers available, there are some older devices that only have XP and Vista drivers. If you have a piece of hardware that doesn't have specific Windows 7 drivers, it's worth downloading the latest XP or Vista driver, since they will often work with Windows 7.



Install a printer on your home network

Access a printer from any computer in your home using the Devices and Printers feature

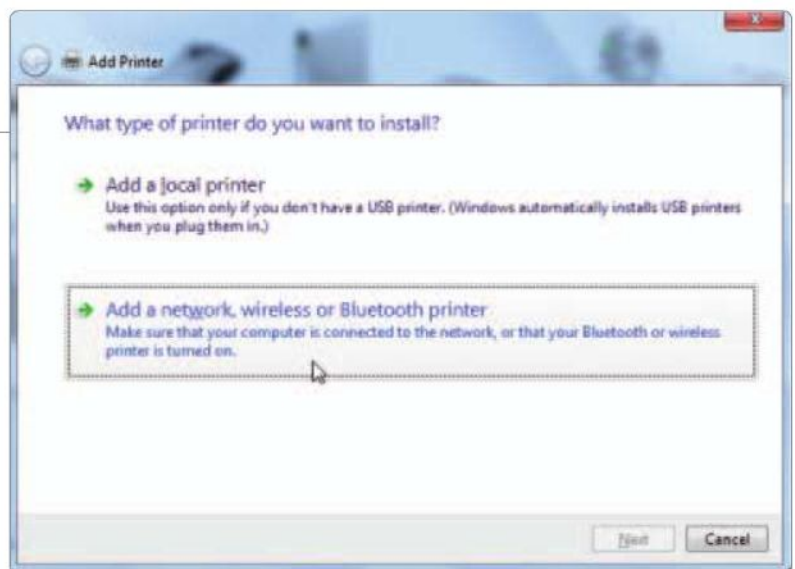
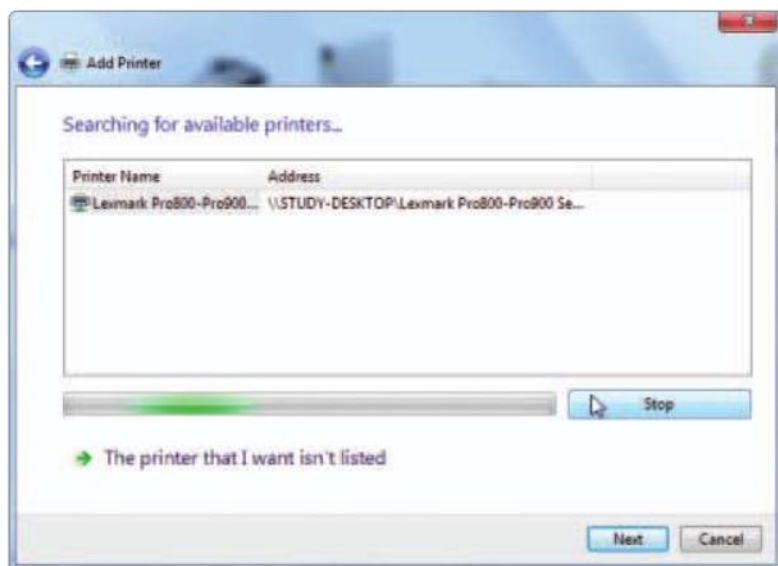
Windows 7's Devices and Printers feature lets you quickly access all hardware attached to your PC. In this Workshop, you'll find out how it can help you install a printer that's attached to another computer on your network. It's easier than you might expect and Windows will even hunt down the appropriate **driver** and install it for you.

In Step 5 of this Workshop, we'll show you how to run Device Stage from within the Devices and Printers window. This tool

is available on a wide range of hardware and provides **shortcuts** to its various functions all from a single easy-to-access window. Finally, in Step 6, you'll discover how to use Devices and Printers to safely eject a **USB** drive.

In order to follow this Workshop through to the end, you will need two computers on your network and one of these must have a printer attached to it that has been set up to be shared over the network.

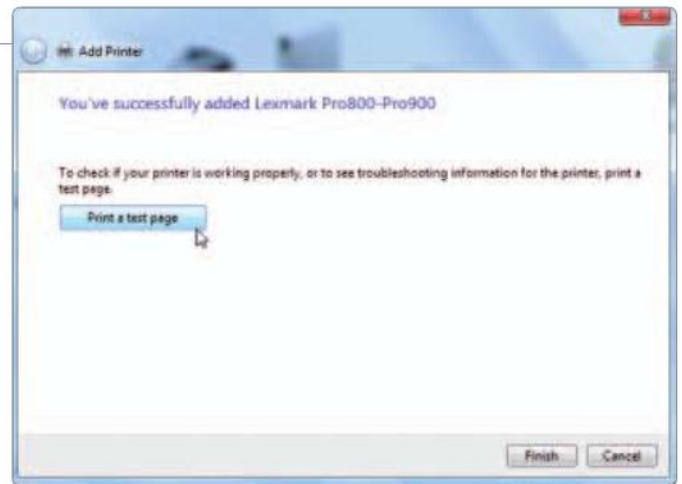
STEP 1 **THE FIRST STEP** is to open the Devices and Printers window by clicking the Windows Start button, then clicking on the Devices and Printers option that's located in the list on the right of the Start menu. The Devices and Printers window will now appear and, at the top, click on the 'Add a printer' button. A new Add Printer window will now appear. There will be two options: one to add a local printer and another to 'Add a network, wireless or Bluetooth printer'. Click on the second option and move on to the next step.



STEP 2 **WINDOWS WILL NOW BEGIN** to search for all printers that are currently attached to computers on your network. The time the search takes will depend on the speed of your network and how many computers you have connected to it. When Windows finds a printer, it will add it to the list, displaying the printer's name and its current location on the network. If the printer you're after appears in the list, you can halt the search by clicking the Stop button. If the printer isn't found, ensure both it and the computer it's attached to are switched on. Now highlight the printer by clicking on it and then click Next to continue.

STEP 3

IN ORDER TO ACCESS the chosen printer over the network, the printer's driver will need to be installed on your computer. Thankfully, Windows does all the hard work for you and will automatically install the required driver. Once it has been installed, you'll see a message confirming that the printer has been successfully added and its name will also be displayed. Click Next and Windows then will offer to print a test page. It's a good idea to go ahead with this as it will show whether or not the correct printer has been installed. Make sure the printer is switched on and has paper loaded in its input tray before running the test.



STEP 4

WITH THE PRINTER NOW INSTALLED, head back to the Devices and Printers window and, under the 'Printers and Faxes' section, you should see a new icon for the printer. Depending on the make and model of the printer, the icon may be an accurate picture of it. Click the printer once with the left mouse button and a selection of shortcut buttons will appear along the top of the window next to the 'Add a printer' button. Alternatively, you can right-click the printer to see the additional options, such as quick access to the Printing Preferences tool.



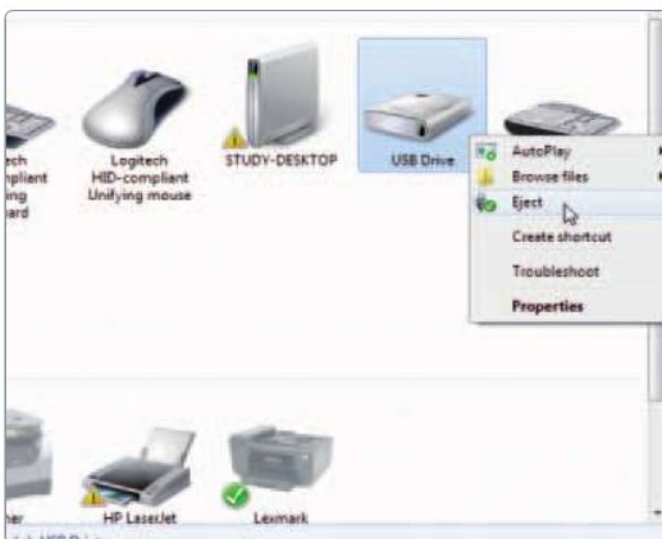
STEP 5

THE DEVICES AND PRINTERS window also includes a new Windows 7 feature called Device Stage. This feature doesn't work on all hardware but on those devices that are supported it will display a new window that's specifically designed for that piece of hardware. To see whether Device Stage is available for your hardware, simply double-click the relevant icon. In this example we've double-clicked our Lexmark printer and a Device Stage window has appeared with links to Lexmark's support site, along with other features that are specific to this make and model of printer.



STEP 6

TO SEE WHAT SHORTCUTS are available for a piece of hardware within the Devices and Printers window, simply right-click the relevant icon. On the computer in this example we've inserted a standard USB memory stick. This appears within the Devices section under the name 'USB Drive'. Right-clicking the icon brings up various options, including one to browse all files currently stored on the drive and another to Eject it; it's important to use the latter before removing the drive so as to prevent data loss. Try right-clicking other icons within your Devices and Printers window to see what other options are available.



Protect your Windows 7 PC from external threats

SOFTWARE
ON THE CD



Even a PC running Windows 7 isn't immune to attack. Here's how to protect yourself

Windows 7 is the most secure version of Windows ever, according to Microsoft, and after some intensive testing, we think it is probably right. It's packed with features to help protect your data and keep **malware, hackers** and other threats locked out of your PC.

The new setup isn't perfect, of course – you must install a full **anti-virus** program to detect all the threats out there, for

instance. Also, one or two other security features can be hard to find and the built-in security defaults require some fine-tuning.

Still, you shouldn't let that put you off – it can all be easily fixed. Just take the powerful security software on the disc inside this issue, combine it with our detailed step-by-step instructions, and your PC will soon be safe and secure. Here's what you need to know.

STEP 1

THE FIRST STEP IN MAKING ANY PC SECURE is to install quality anti-virus software. If you're upgrading your existing PC to Windows 7, you should, theoretically, have some kind of anti-virus program running already. It's important to run a full virus scan before you begin upgrading, as any malware can potentially derail the process and leave you with a messed-up PC. Any existing anti-virus software you want to carry on using must be compatible with Windows 7. If that's a problem, or if your existing anti-virus provider wants you to pay to get Windows 7 compatibility and you would rather not spend the cash, you could just install Bit Defender AntiVirus Pro 2011 from this issue's disc.



STEP 2

BIT DEFENDER ANTI-VIRUS PRO 2011 is compatible with XP and Vista as well as Windows 7, so you can install it on your PC if you are carrying out a Windows 7 upgrade. Full details of how to install and use the program are on page 92. We recommend that you install it on your PC, then update all the Virus information and perform a full scan of your PC, before starting to upgrade to Windows 7. That way, you can be sure that, whatever type of Windows 7 installation you perform, any data you copy from your old version of Windows will be free of viruses or other malicious software.

STEP 3

NOW UPGRADE TO WINDOWS 7 (if that's what you're doing). The process is surprisingly quick but may change both your **firewall** and **network** settings, so give them a quick check. Click Start, type 'Network' and click 'Network and Sharing Center'. Make sure your active network is the right type: 'Home network' if you're at home and trust the PCs around you; 'Work network' if you're at work but trust the local systems; or 'Public network' if you have mobile broadband, are in a public place and don't know the PCs nearby. If you're using the 'Public network' setting at home, other systems on a home network won't be able to connect to you. Click the network type and change it.

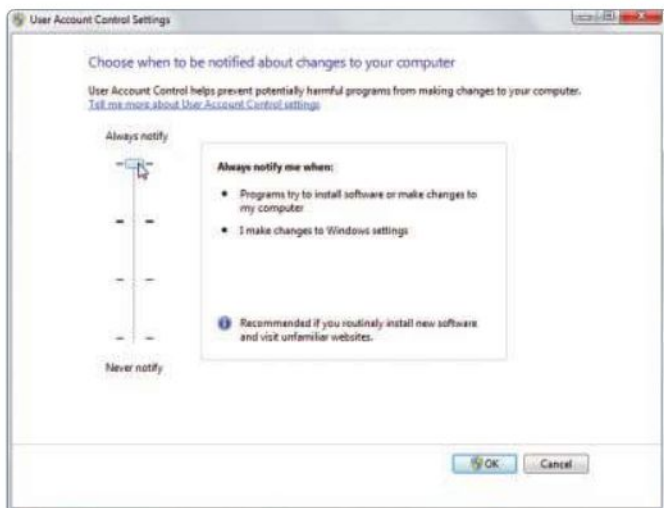
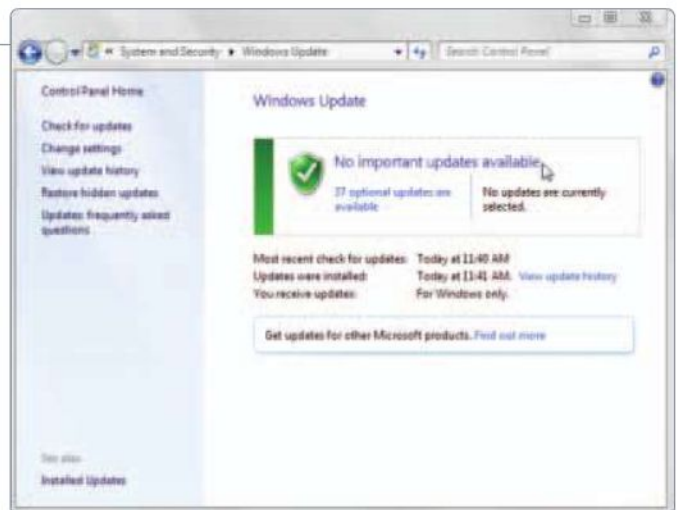


STEP 4

CLICK THE WINDOWS FIREWALL LINK at the bottom of the Network and Sharing Center. If you don't have a software firewall installed and your internet connection is through a **modem** rather than a **router**, check to see that 'Windows Firewall state' is set to 'On'. This will protect you from hackers who try to directly access your PC while you're online. If you do have another firewall installed, though, using the Windows Firewall as well can cause conflicts, so it's better to leave the Windows Firewall switched off. If the current setting doesn't suit your needs, then click 'Turn Windows Firewall on or off', change it, then restart your computer to allow the new settings to take effect.

STEP 5

YOU'RE NOW RUNNING WINDOWS 7 and everything is looking good, but there's a problem – your copy includes none of the security patches Microsoft has released in the past few months. It's important to check that you're set up to download and install the security patches. Click Start, then Control Panel. Choose the 'System and Security' category and click 'Windows Update'. If you see a green tick and 'No important updates available', then your system is properly configured and has automatically installed security updates. If you see anything else, click 'Check For Updates' to find out what's available, download it, then click on 'Change Settings' and set Important Updates to 'Install updates automatically'.

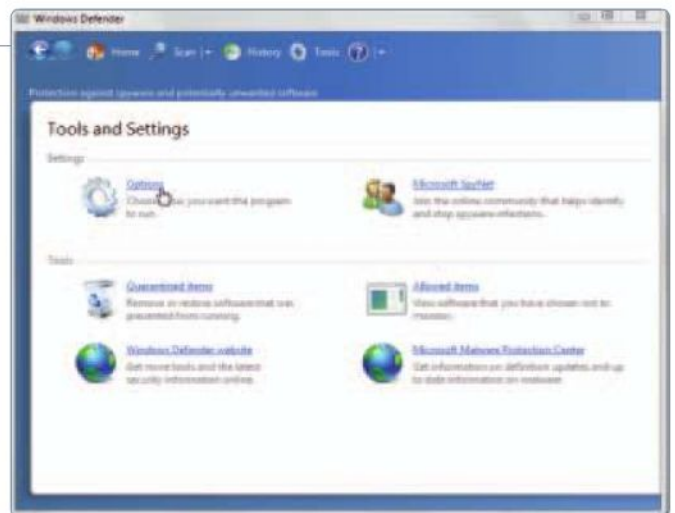


STEP 6

WINDOWS 7 HAS CHANGED VISTA'S User Account Control (UAC) to reduce the number of prompts. By default Windows' own applications can make system-wide changes without any warnings being displayed – you'll only see these if you install and run new programs. This does have the potential to leave you less protected, though, since malware can pretend to be, say, Windows Explorer, and do anything it likes without you seeing a UAC prompt. Fortunately, there's a fix for this: restore UAC to its maximum Vista-style settings and you'll see more prompts again, and these will be harder for malware to bypass. Click Start, type **UAC** and click 'Change User Account Control settings'. Move the slider to 'Always notify' and click OK.

STEP 7

WINDOWS 7 COMES WITH ITS OWN MALWARE DETECTOR, called Windows Defender. Strictly speaking, you don't have to use this if you're using Bit Defender AntiVirus Pro 2011, which should catch any threats. However, it's often a good idea to have another anti-malware tool available, just to offer a second opinion. Click the Start button, type 'Defender' and click the Windows Defender link to launch it. Next, click 'Check for updates now' to ensure it's up to date. If you're running Windows 7 with Bit Defender on a low-powered PC or netbook, though, you could potentially disable Windows Defender to optimise performance a little. Click Tools, then Options. Choose the Administrator option and clear the 'Use this program' option to turn Windows Defender off.

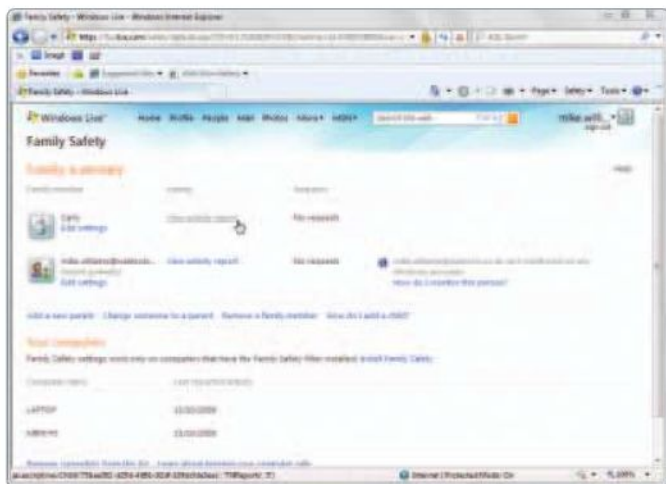


STEP 8

IF YOU HAVE CHILDREN, then you might want to enable Family Safety – the new Windows 7 Parental Controls system. This, along with other Windows features including Messenger, Mail (the replacement for Outlook Express and Windows Mail), Photo Gallery, Movie Maker and more are no longer included on the Windows DVD, so you'll need to download and install it first. To try this, click Start, type Live and click 'Go Online to get Windows Live Essentials'. A browser window will open at the download.live.com page. Click Download, choose to run the setup program if you're asked, and the Windows Live installer should appear (be patient, though, as this can take a minute or two).

STEP 9

ONCE LOADED, THE WINDOWS LIVE INSTALLER will list all the programs it's able to install. Check the Family Safety box and anything else you want. Click Install to start the process. When the setup process is complete, you may launch parental controls by clicking Start, typing Family and clicking the Family Safety link. Sign in with your Windows Live ID (click Sign Up if you don't have one). Now choose the Windows accounts you would like to monitor or restrict. If you don't have a user account for your children yet, click 'Create a new standard Windows account' to make one. Choose the account, click Save and work your way through the **wizard**, accepting the default settings.



STEP 10

ALL THESE DOWNLOAD AND WEB LOGIN REQUIREMENTS may seem like a real hassle, but once you've set things up, they'll really pay off. Point your **web browser** to <http://familysafety.live.com>, sign in and you'll see the accounts of any family member you're monitoring. Clicking View Activity Report will show you what they've been up to on the PC, while choosing Web Filtering will help you control the sites they're able to access – you could turn off Facebook for a few days as a punishment, say. And because all this is web-based, it works from anywhere. You might be at work or away on a trip, but as long as you have access to a web browser, you can still log in and see exactly what the kids have been doing on the PC.

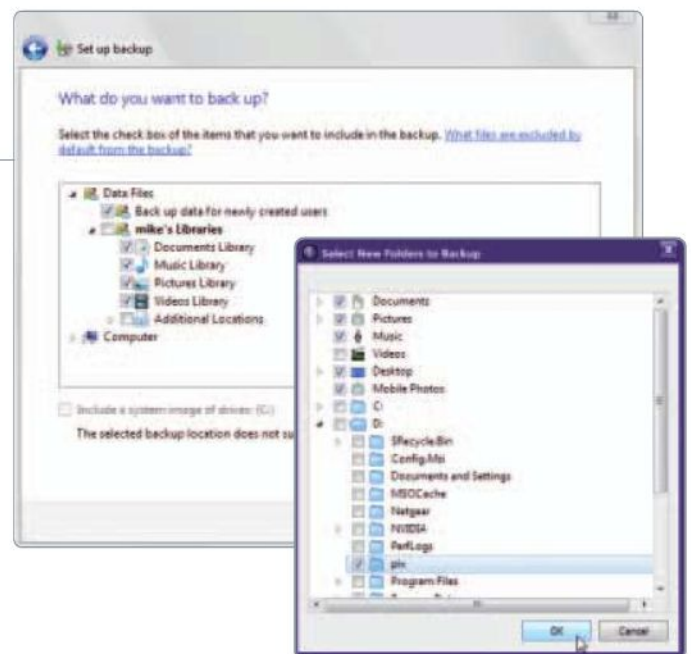
STEP 11

IF YOU'VE INSTALLED WINDOWS LIVE MAIL (see page 44), this also has some useful security settings. Launch the program, press Alt, click the Tools menu and then select Safety Options. By default, Windows Live Mail only moves the most obvious **spam** emails to the Junk folder. Choose the 'High' option if you would like to catch more but beware, as it could also catch legitimate emails. Browse the Junk email folder frequently to rescue messages that have been moved incorrectly. Now click the International tab. If you're sure you'll never get email from a particular country or in a certain language (Chinese, say), then block it here and cut your spam further. Then click the **Phishing** tab, check 'Move phishing email to the Junk email folder', and in future these online scams will be moved to the Junk folder automatically.



STEP 12

YOU'VE ALREADY USED WINDOWS 7'S Internet Explorer 8 (IE8) when you downloaded your choice of the Windows Live Essentials. Now it's time to configure the web browser for your security needs. Open IE8, press Alt, click Tools and select the Smart Screen Filter sub-menu. This will stop you accessing dubious sites or malware-ridden downloads, which is a useful ability. If you see an option to Turn On Smart Screen Filter, select it. Now press Alt, click Tools and select Internet Options. Click the Security tab and make sure Enable Protected Mode is checked to limit the harm any browser-based malware can do. Malicious sites often use **pop-ups** as a way to force **spyware** downloads. Click the Privacy tab and check 'Turn on Pop-up Blocker' to reduce their chances of success.



STEP 13

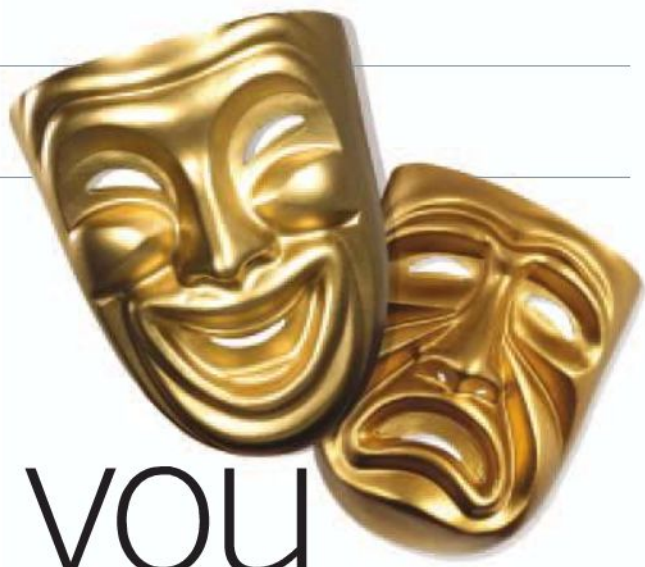
IF YOU'VE FOLLOWED OUR INSTRUCTIONS SO FAR, you'll be well protected against viruses, hackers and dubious websites. However, to protect your data, it's also wise to create a backup occasionally. Click Start, type Backup and click the Backup and Restore link. Click 'Set up backup', choose a backup drive (a DVD writer is fine) and click Next. Select the 'Let Windows choose' option to back up almost everything or 'Let me choose' to save just a few files. Click Next, complete the wizard and Windows will not only save your chosen files, but also schedule them to be regularly backed up in future. Our second free program, Webroot Internet Security Complete, also includes **10GB** of online backup for your most important files – see page 93 for details.



STEP 14

THAT'S IT – YOU'VE FINISHED. Your PC is now safe and secure. Or at least it should be. But what if you've forgotten something? Windows 7's new Action Center will regularly check your system settings and alert you to any problems – you can learn more about it on page 80. Click Start, type 'Action' and click the Action Center link. It's also worth turning to page 93, where you can learn more about Webroot Internet Security Complete, which is also included on our free disc, and contains plenty of other features to help keep you safe online.

Let me entertain you



Windows 7 is packed with even more features than ever, making it a great way to enjoy music, TV and much more

When the PC first saw light of day, back in the early 1980s (and before Windows), it was seen very much as a serious business tool – there was nothing entertaining about it. In those days, if you wanted games or graphics, there were ‘home’ computers from the likes of Atari, Sinclair, Commodore and others, or dedicated games consoles. Music and video were catered for by CD players and VCRs.

Today, thanks to a combination of fast processors, powerful sound and graphics hardware, and intuitive software, PCs can handle all the multimedia demands of home entertainment with ease – from photos and games to music and movies. Windows 7 has gone further than any previous version of the operating system in harnessing the power of the PC and



▲ Windows 7 includes a number of tools for viewing your images

presenting it in a completely user-friendly way, helping to take it out of the home office and into the living room. In this feature, we look at some of the ways Windows 7 can entertain you. You’ll find more detail in our step-by-step Workshops on pages 66 and 70.

Older versions of Windows tended to be fairly clumsy when it came to music and video. Windows Media Player wasn’t always as capable or reliable as it should have been. As a result, third-party media players that could play more file formats more quickly and efficiently have appeared over the years. With Windows 7, though, Microsoft seems to have addressed most of the issues, as it’s the most entertainment-friendly Windows to date.

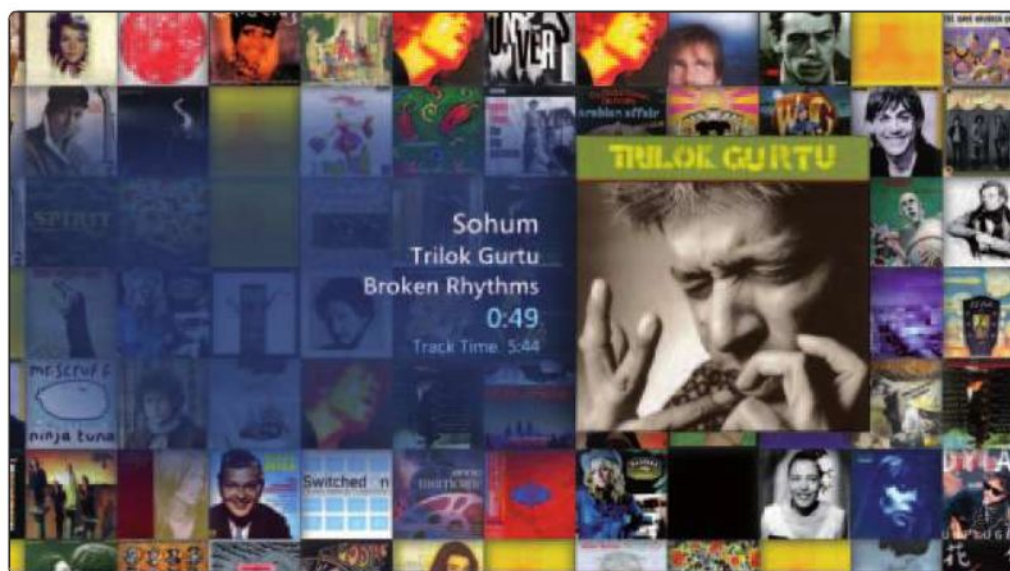
All editions of Windows 7, except the Starter, include the full range of new multimedia features that have been added.

Pulling it all together

At the heart of Windows ‘the entertainer’ is Windows 7 Media Center. First introduced

▼ Windows 7 is the most entertainment-friendly version to date





▲ Windows Media Player will convert your CDs into MP3s or WMA files, tag them and find the cover art online

with Windows XP, this big-screen optimised media player has strived to integrate your music, movies, TV and photos.

Media Center doesn't look like the rest of Windows. It has a simple, uncluttered interface where the principal control involves moving back and forth, into and out of different levels of media. It's somewhat reminiscent of portable media players, with large photos and simple textual information that floats in and out as tracks or images change from one to the next.

What it lacks in terms of control or complexity Media Center makes up for with an elegance and simplicity that make it perfect for watching on a big screen. And to emphasise the fact, Microsoft sells a dedicated remote control and an **infra-red** receiver that plug into your PC for around £20. (Similar devices are available from third parties.) We've looked at Media Center in more depth, starting on page 68, including how you can use it to record TV programmes.

Managing your media

Windows 7 Media Center puts on a great show. But when it comes to managing and organising your music collection, you'll need

to make use of the tools in Windows Media Player. Most importantly, as you start to build your music library, Media Player will convert your CD albums to **MP3s** or **WMA** files. The process, known as **ripping**, is completely painless – tracks can be ripped to your **hard disk** automatically whenever you insert a CD into your computer for the first time and, because it all happens in the background, you can listen to the album at the same time if you like. You don't even need to copy the track information from the CD sleeve; Media Player identifies the album with the help of an online service such as Gracenote, names the files accordingly, and inserts **tags** with the title, artist, album name, track number and so on. It even adds album artwork, which will display during playback or as a thumbnail in Explorer – all without any intervention from you.

With hundreds or even thousands of albums in your music library, choosing what to play can be bewildering, so **playlists** allow you to assemble virtual albums, without moving or copying any files. After making a new playlist, you can add tracks either individually or many at a time, with just a couple of clicks. You can learn more about Windows Media Player by turning to page 64.

JARGON BUSTER

Backup A file, folder or external storage device that stores copies of valued documents.

Blu-ray A type of optical disc that can store up to 50GB of information.

DLNA A standard for media streaming devices.

Flash A type of memory with no moving parts that maintains its contents even when the electricity is switched off.

GB Gigabyte. A measurement of storage capacity, usually for hard disks. 1GB is equal to 1,024MB (megabytes).

Graphics card The part of a PC that displays the image you see on a computer's monitor.

Hard disk A high-capacity disk fitted in almost all PCs and used to store both applications and the documents and files they create.

HDMI High-Definition Multimedia Interface. A cable that carries both high-definition video and sound.

High definition A TV picture with a higher resolution than normal.

Infra-red An interface that allows you to transmit data via infra-red light waves, allowing data to be transferred cordlessly between devices.

Memory card Small cards that can store many megabytes (MB) of data.

MicroSD card A type of tiny memory card, around the size of a fingernail, often used to add storage to mobile phones.

CONTINUED ON PAGE 63

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

WHAT ABOUT BLU-RAY?

Just about every PC now includes a DVD drive that can play, and probably burn, DVDs and CDs. But some high-end PCs now come with a **Blu-ray** drive, either as standard or as an option, that can also play Blu-ray discs (and perhaps even record them).

Whereas DVDs play standard-definition video at up to 720×576

resolution, Blu-ray discs can play movies at 1,920×1,080, which is perfectly matched to the latest high-definition TVs.

If your PC doesn't have Blu-ray and you want to add it, the simplest solution is to opt for an external (USB) Blu-ray reader for around £75. Alternatively, you can buy one that will also write Blu-ray

discs for roughly double the price. The software that you need for Windows 7 should be included with the drive.

As for content, Blu-ray movies are readily available to buy or hire, alongside DVDs, but if you want to burn your own, blank discs cost around £5 each for 25GB or £10 for 50GB.



▲ Keeping your music in a library means it's unlikely you'll clutter your hard disk with duplicated files

Portable players

When you've created playlists on your PC, they can be synchronised with a portable media player or mobile phone. Choose what you'd like to hear and, when you plug the device into your PC, the playlist and its actual files are copied across automatically, so you can play them on the go.

Portable media players and mobile phones have become an essential part of home entertainment systems. As well as music, some can also play movies – many in **high definition** – and some even have **HDMI** ports so that you can hook them up to your TV for big-screen viewing. Storage isn't an issue either, as

Flash memory cards are convenient, cheap and double in capacity every year. The current limit for **MicroSD cards**, each less than half the size of a first class stamp, is **32GB** – enough for around 8,000 music tracks or 45 movies.

Choose your library

As your music, movies and photo libraries grow, keeping on top of things can become tricky. If you don't keep everything properly organised, over time it will become harder to find a particular track or movie you want to play, and having multiple places where you store your files can lead to duplication.

It's sensible to designate one place as the main repository for, say, your music collection. The most convenient and cost-effective form of storage is an external hard disk connected to your PC. A 500GB drive will store 125,000 tracks or 700 movies, while a **1TB** (terabyte) drive will double that for around £75; more than enough to hold your collection.

Remember, though, that even the most reliable hard disk may fail sooner or later, and imagine how you would feel if you suddenly lost everything. While there are companies that specialise in recovering data from broken hard disks, it's expensive and doesn't always work. Therefore, a sensible strategy is to buy two identical hard disks – one for your media collection and one for **backup** (once a week or month). It doesn't take long and many drives come with software to simplify the process. So, should a drive fail, all won't be lost.

Keeping it quiet

Computers can be very noisy as a result of the electric fans nearly all of them – laptops included – use to cool the processor, the **graphics card** and other internal components. When you're choosing a new PC primarily for playing music and movies in your living room, try it out first, if possible, or get reassurances that it is quiet in operation. If you are adapting an existing PC to use as an entertainment hub, you could replace its noisy fans, but that can be expensive. An alternative is to hide the PC,

PHOTOS IN WINDOWS 7

Windows 7 includes a number of different tools to view, manage and manipulate your photos. When you want to transfer photos from your camera or phone, sort them into dated folders, add information tags or meaningful filenames and move them to the My Pictures folder, then Windows Explorer is your best bet.

Once you have named and tagged your images, you can use the powerful indexed search features of Windows 7 to find a particular photo anywhere on your hard disk in seconds. Double-click a photo in Explorer and Windows Photo Viewer appears so you can zoom, rotate,

copy or delete, or print your images as you browse from one to the next. You can also email or burn them as a slideshow onto a video DVD.

There's no photo-editing software included in Windows 7, but you can download Photo Gallery by visiting www.snipca.com/x1817. This is part of Windows Live Essentials – a selection of useful programs and add-ins that Microsoft provides for free. (While you're there, grab a copy of Windows Live Movie Maker, too.) In addition to exposure and colour adjustment, **red-eye** fixes, cropping and resizing, straightening and sharpening, Photo

Gallery can create online albums or turn any jumble of photos taken at a scene into a panorama automatically. It also has a basic face recognition feature called People tags. When the program comes across a face it doesn't know, a tag pop-up appears. Enter the name and the next time that person is found in any photo, you'll see their name by hovering the mouse pointer over their face.

Once all fixes and adjustments are made, Windows 7 Media Center will turn your photos, with the help of your music, into a multimedia visual feast that your family or friends can enjoy.



▲ Photo Gallery can create online albums and has a basic face-recognition feature called People tags

and **stream** entertainment to your living room over your home network.

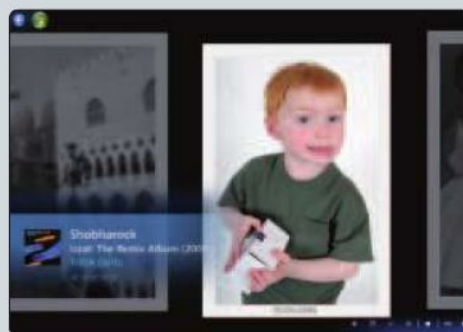
One of the most important standards for this is called **DLNA** (Digital Living Network Alliance) and it allows any compliant devices – TVs, personal video recorders, games consoles and PCs – to find, control and play content on any other DLNA device remotely, without any setup or configuration. On the PC side of things there's software – including Windows Media Player – that will share media using DLNA. Another way to get started is by setting up a network-attached storage (**Nas**) device to hold your media in the same way

you'd connect an external **USB** hard disk. Most Nas units include a DLNA server, so by storing your music and video files on them, they'll automatically be available on DLNA players connected directly to the TV – you may already have one in the shape of the Xbox 360 or Playstation 3. There are even some TVs with built-in DLNA playback that can access files on your Windows 7 PC or a Nas while the PC's tucked away out of sight in another room.

So, there's a lot in Windows 7 that can help entertain you, whether with music, movies or photos. Over the page, we'll show you more about the Windows Media Player.



▲ In Photo Viewer, you can print images while browsing



▲ View images accompanied by music

JARGON BUSTER

MP3 A standard for compressing digital audio. The sound quality is close to that of CD audio, but needs only a fraction of the storage space.

Nas Network-attached storage. A hard disk on a network that is independent of other PCs.

Playlist A list of audio tracks queued for playback, not unlike a stack of records on an old record player.

Red-eye A photographic effect where a flash reflects from the back of the subject's retinas, giving their eyes a red glow. The effect can be reduced with a flash that pulses before the image is taken, making the iris contract and reducing reflection.

Rip To digitally extract the music data from a CD-Rom or audio CD. Ripping a track from an audio CD is the first stage of compressing it as an MP3 file.

Stream Audio or video that can be viewed as it is downloaded from the internet or transferred from another PC. Streaming media sometimes stalls if the source material is received slower than it is played back.

Tag A keyword used to describe a file.

TB Terabyte. The equivalent of just over 1,000 gigabytes.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals to your PC. Devices can be added or removed while your PC is switched on.

WMA Windows Media Audio. A compressed digital music format developed by Microsoft that allows secure encoding of music tracks.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

Media friendly

Like many of Windows 7's other components, Windows Media Player has also been updated and offers some excellent new features. We test the latest version



On that note, WMP 12 also looks similar to what we are used to from WMP 11. Media source folders – Music, Pictures, Videos,

Recorded TV (from Media Center) and the online Media Guide – are positioned on the left side of the screen, while content is displayed in the main pane. Playback controls, a volume slider and a 'Now Playing' shortcut button are displayed at the bottom. At the top are tabs to Play, Burn and Sync media, organise your media library and **stream** media to and from WMP 12. It's everything you could do before, plus a few extras, which we'll delve into now.

▲ WMP 12 offers improved support for file formats

▲ Windows Media Player 12 has been designed to make dealing with digital media easier than ever

Unless you use an iPod and so need to use Apple's own media player, iTunes, it's likely that you have at least seen Windows Media Player (WMP) in action before. It's quite possible that you already use a version of WMP to play, organise and share music and movies stored on your PC. And if you own a non-Apple portable player, you probably use it to synchronise your media library with your device. WMP has been a part of the operating system for years and it's no surprise to find an updated version in Windows 7.

WMP 12 has been designed to make dealing with digital media easier than ever. In this feature, we'll explore what is new and how successful it is, while in the Workshop on the page 66 we explain how to put WMP 12 to work with a practical step-by-step guide.

Evolutions

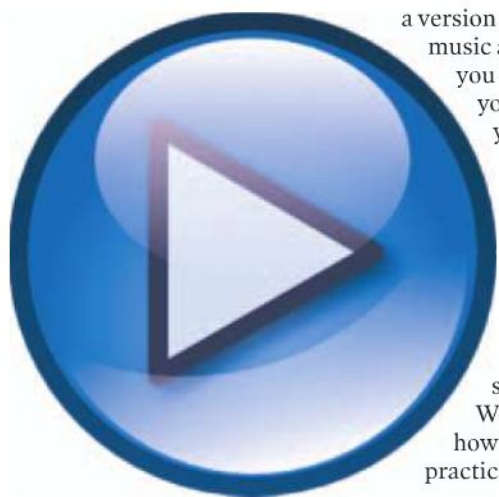
For those who have upgraded from Windows Vista or XP, WMP 12 feels distinctly familiar and comes across as a tweaked upgrade, rather than a brand new piece of software.

Perhaps the biggest advance with WMP 12 is how easy it is to stream your media around the house. Providing you have other computers or **DLNA**-compatible devices connected to your home **network** – such as an Xbox 360, a dedicated media streamer or one of the latest DLNA-compliant TV sets – you can select any video, photo or music file in your library, 'send' it to another room and the file will be streamed. It's much easier than before and because Windows 7 is better at finding other networked devices, there is no real setup involved.

Stream machine

Another excellent example of WMP 12's streaming capability is that you can access your media library from any Windows 7 computer with an internet connection. It's called Remote Media Streaming and is only available with the Home Premium, Professional, Ultimate and Enterprise editions of Windows 7.

The setup procedure is straightforward but you must have a Windows Live (or Hotmail) account. Click 'Stream' from the main menu bar, then 'Allow internet access to home media'. Here you'll need to follow the wizard to associate your Live ID with each computer, although once complete, any linked PC will





▲ There are tabs available for playing, burning and syncing your media

appear in the left-hand Library pane – a great feature that matches iTunes for simplicity.

Importing media to WMP 12 is also much easier. Insert a **USB** device and click 'Import pictures and videos or music' to automatically put media files in their specific folders and add them to the WMP 12 library.

Alternatively, drag media into the relevant folders and WMP 12 will automatically import and tag the files, making your library easier to navigate and for specific media to be found more quickly. This is essential considering how many music and video files and photos are stored on the average **hard disk**. Use the Search bar at the top of the WMP 12 window to search for artists, song titles, photos, videos and recorded TV.

Multiformat filing system

WMP 12 also has improved support for a variety of file formats, including 3GP, AAC, AVCHD, DivX, Mov, and Xvid. This is good news for the growing number of people downloading media from the internet, but it also provides better cross-compatibility with movies, photos and tunes transferred from portable devices.

As mentioned, the way WMP 12 looks and

operates has not changed a great deal from previous versions.

However, there are some nice touches. For example, hover your mouse over any music track and click Preview to listen without adding it to a playlist first. You can also toggle between the 'traditional' Player Library, which offers greater control over all of your media, and the new 'Now Playing' mode that minimises WMP 12 to a smaller playback window.

If you click the 'Now Playing' icon at the bottom-right of WMP 12, this turns the main library into a smaller screen that highlights what is playing. Basic playback options skip tracks and adjust volume while album art is also displayed. Any form of media – such as photos – can also be added.

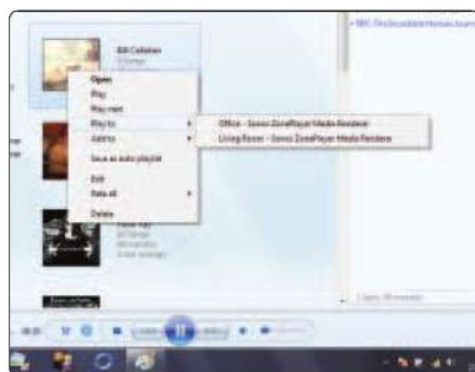
Minimise the Now Playing window and hover your mouse over the WMP 12 icon in the Taskbar to bring up a simplified version of WMP 12. This is great for accessing media while multitasking with other applications.

This also highlights a new feature of Windows 7 called Jump Lists. Right-click on the WMP 12 Taskbar icon to bring up a frequently played media file, which can be accessed directly from the list. In short, it's a cleaner and quicker way of enjoying your media than we've seen on previous versions.

Familiar face

If you're used to the previous version of WMP from Windows Vista (WMP 11), you'll appreciate the new location of the Play, Burn and Sync tabs, which are now positioned above the playlist window.

Overall, Windows Media Player 12 might only include a few minor tweaks and adjustments. However, it seems that Microsoft has buffed up its media player to make it the most complete and simple edition available thus far.



▲ See your library from a web-connected Windows 7 PC

JARGON BUSTER

DLNA A standard for media streaming devices.

DRM Digital Rights Management. Software that protects media files from illegal copying.

Hard disk A high-capacity disk fitted in almost all PCs and used to store both applications and the documents and files they create.

Network A way of connecting several computers and devices so that they can share data.

Open source Software that is developed, released to and used by the public, free of charge, as an alternative to software from large companies.

Stream Audio or video material that can be viewed as it is downloaded from the internet or transferred from another computer. Streaming media sometimes stalls if the source material is received slower than it is played back.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals, such as storage devices, to your PC. Devices can be added or removed while your PC is switched on.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

ALTERNATIVE MEDIA PLAYERS

WMP 12 is undoubtedly an improvement over previous versions but there are other choices available for Windows 7 users. The most obvious and widely used is iTunes (www.apple.com/uk/itunes/download). If you have an iPod, this is the only legitimate

way of getting media on/off your device. It can also stream from its library to other Apple devices and includes access to the Apple Store for buying, downloading and renting media.

Another alternative is the **open source** VLC player (www.videolan.org/vlc), which

supports almost every media format type except those protected with Digital Rights Management (**DRM**), such as files downloaded from stores such as Napster and iTunes. It can also stream media from your library to other devices.

Import, stream and burn with Windows Media Player

Add, organise and share music and movies with Windows Media Player 12's Library

Windows Media Player 12 (WMP 12) not only has a new and improved look but also some great new features, including the ability to easily **stream** media around your house and over the internet.

In this Workshop, we'll take you through the basics of how to import media from different sources and how to organise that media in your Library. We'll then demonstrate how to **burn**

media to disc, how to stream it to connected **network** devices and even how to access another computer's media Library – all from within WMP 12.

Microsoft has designed WMP 12 so that it will be familiar to those who've made the jump from previous versions, integrating some more powerful features that are easy to set up and use along the way. Read on to find out how.

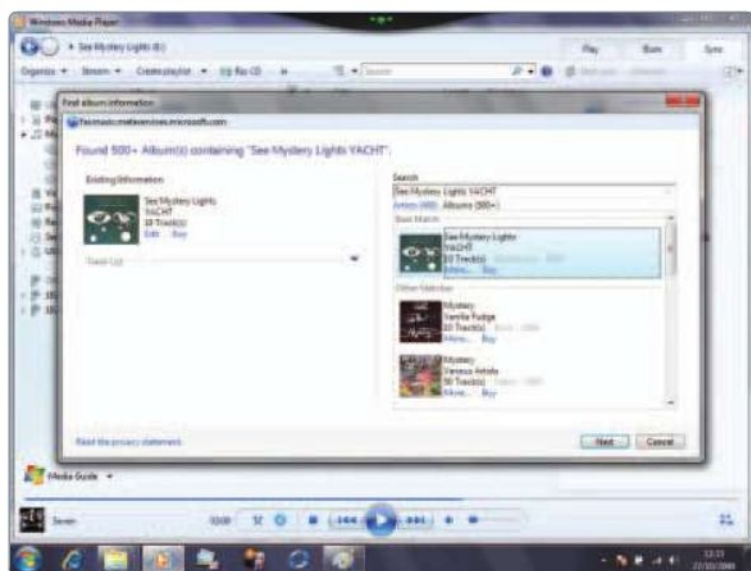
STEP 1

THE THREE MAIN WAYS OF IMPORTING MEDIA are transferring songs and videos from **USB**-attached devices, extracting media from data CD/DVDs, or **ripping** from an audio CD. To do the former, insert your USB device and when the Autoplay **dialogue box** appears, click 'Import pictures and videos'. If there are photos, you'll have the option of **tagging** them on import, making them much easier to find or search for later. If media isn't imported automatically, drag it from the device to the corresponding media folder within your User folder – either Music, Pictures or Videos. Media will be updated and organised in the WMP 12 Library. If you are importing videos, photos or music files from a data CD or DVD, the process is effectively the same. If you want to extract tunes from a music CD, then follow Step 2.



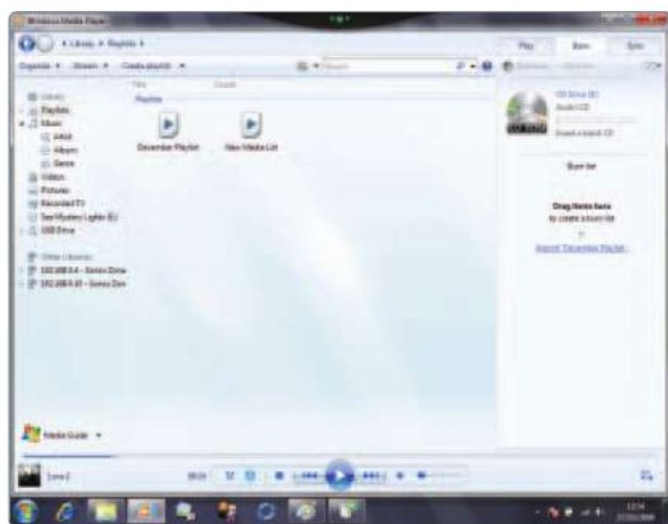
STEP 2

EXTRACTING MUSIC FROM A CD and importing it into your WMP 12 Library is a different process. Insert your music CD into your computer's CD/DVD drive and wait for WMP 12 to recognise the album and tracks. If it doesn't, right-click the **icon** where the cover art should be and click 'Find album info'. WMP 12 should now find the album, so click on the correct match, then Next and Finish to attach the details and cover art. Before you click 'Rip CD' in the WMP 12 menu bar, click the arrow next to it to open Rip settings. Here you can choose what format (**WMA**, **MP3**, **WAV**) to encode to and the audio quality (choose **192Kbits/sec** for a good compromise between quality and file size). Now click 'Rip CD' to import the CD to your Library and choose whether you want to add copy protection (**DRM**) to your music – chances are you won't.



STEP 3

BEFORE YOU BURN, SYNCHRONISE OR STREAM your media, you need to know how to create a playlist. For this Workshop, we'll create a music playlist, but the method applies to all media you have in your Library. Click the Play tab, then drag what you want to listen to into the playlist area underneath. To save the list for quick access later, click the 'Save List' icon. Type what you want to call it and hit Enter; the list will now be stored for future reference. You can access your saved playlists by clicking the playlists icon on the left side of WMP 12.

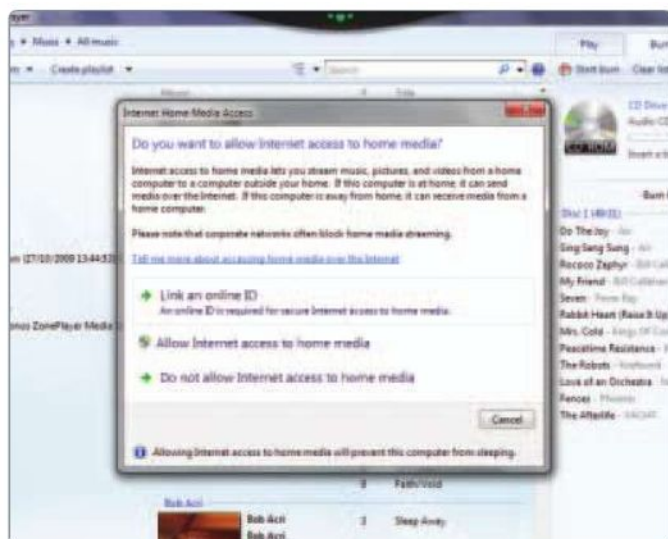


STEP 4

TO BURN SAVED PLAYLISTS OR OTHER MEDIA TO A CD, click the Burn tab. Here you can drag media to the Burn list, or import a saved playlist. To do this, click the 'Import playlist' link and your media will appear in the Burn list. You can add further media to the list at this point. Insert a blank CD or DVD into your computer and WMP 12 will display how much free time or space remains on the disc. Click the **dropdown menu** to choose between burning a Data disc or Audio CD and to adjust further burning options, such as 'burn speed' or 'volume levelling' when creating audio CDs. When you're happy, click 'Start Burn' and your media will be copied to disc.

STEP 5

STREAMING MEDIA TO OTHER DEVICES AND COMPUTERS using WMP 12 is relatively straightforward. Providing you already have **DLNA**-compatible devices on the network, such as an Xbox 360, a Logitech Soundbridge or a Sonos system, WMP 12 will detect and list them in Library pane. Here, we have Sonos connected to our network and can quickly stream our music to any of the connected players by right-clicking an individual file (or selecting a whole playlist), clicking 'Play to' and then the desired device. A playback window will appear with the tracks being streamed, which can be controlled like you would in the main window. Follow the same principle for streaming video and pictures to other devices.

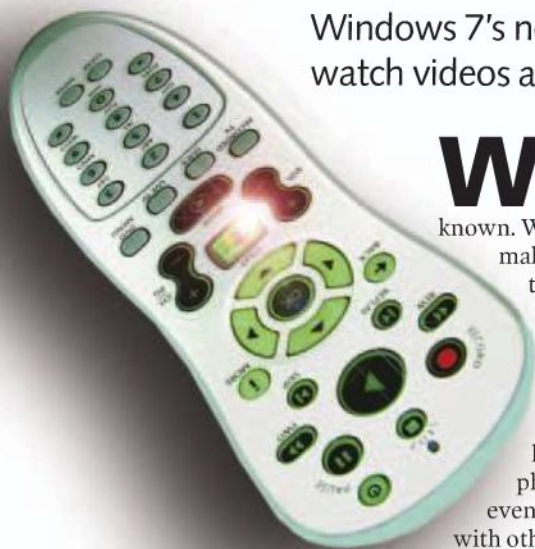


STEP 6

BUILT INTO WMP 12 IS THE OPTION TO BROADCAST MEDIA on your computer to any other Windows 7 PC, providing they are linked together with a Live ID account (or Hotmail address). In the menu bar, click Stream, then 'Allow Internet Access to Home Media', then 'Link online ID', then 'Add an online ID provider'. You will be directed to a Microsoft web page where you may have to download a Windows Live sign-in Assistant. Do this and click 'Link online ID'. This will sign you into your Live account. Click 'Allow Access to Home Media', which will authorise your computer to stream and receive media from other Windows 7 PCs. Follow this procedure on other Windows computers and access files in the Library panel in WMP 12.

The entertainer

Windows 7's new Media Center lets you browse photos, listen to music, watch videos and record TV. Here we look at what it offers and how it works



Windows Media Center (WMC) was one of the best features of Windows Vista, but not well known. Windows 7 has given it a substantial makeover, adding support for new technologies and making it even easier to set up and use.

With the right hardware, WMC turns a PC into a fully fledged personal video recorder (PVR), allowing you to watch and record live TV shows. It also lets you view photos and videos, listen to music and even play games. You can share media with other computers on a wired or wireless home network. Hook up the PC to a TV, add a remote control and turn them into a hub for all your home entertainment needs. And the best part is it's all incredibly easy to set up and use.

Central attraction

Unless you've already been using Windows Vista Home Premium, WMC might come as a bit of a surprise. The Home Basic version of Vista didn't have WMC built in and, while there was a separate XP version (Media Center 2005), it was difficult to find, hard to get working and never became popular.

The new version of WMC built into every edition of Windows 7 (except the Starter version) changes all that. It is designed as a home entertainment centre. You can connect your PC to a TV and/or a hi-fi and use it to watch or listen to your TV, radio, music, video

and photos. It doesn't have to connect to a TV; WMC works perfectly well on any standard PC display. The menus and controls are designed to be easy to use when you're sitting across the room from it – there is even a special remote control.

If your PC has a **TV tuner** (see Tuning In opposite), it can be turned into a video recorder that will let you watch, pause and rewind live TV, just like a Sky+ or Freeview+ **hard disk** recorder. FM radio tuners are also supported – some TV tuner cards come with these built in.

With a **DVD writer** in your PC, you can also burn discs directly from within WMC, making it a one-stop multimedia shop you can control from the comfort of an armchair.

It might take a short while for those familiar with the menus of Vista's version of WMC to get used to the new layout and features, however we found them to be a big improvement. If you want help getting WMC running, turn to our Workshop on page 70. First, let's see what it has to offer, starting with its TV capabilities.

TV heaven

At the heart of WMC is an electronic programme guide (EPG). This is a 14-day TV schedule that's customised for whatever TV region you're in and whatever type of TV signal you're using. So if you have a digital tuner, you'll see a listing of all the Freeview channels, but with an analogue tuner you'll just see terrestrial ones.

WMC can even work with a digital satellite service (such as Freesat) if you have a suitable tuner and dish. This is new to Windows 7 and needs more advanced skills to set up, so we won't be looking at it in depth here. WMC supports **high-definition** broadcasts if you have a suitable tuner card.

Using the EPG, you can schedule recording of shows by right-clicking on a show and selecting Record. When you're watching live TV, WMC can pause, rewind or play it back in slow motion. It can run in either full-screen or windowed mode, so it's easy to watch TV on the desktop while you work at your PC.

Using the Movies section of the main menu, you can see all the movies being broadcast on TV for the next two weeks. These can be

▼ You can pause, rewind or play back live TV in WMC





▲ WMC also provides access to 'red button' services, like the weather

sorted by rating, genre, year and so on, making it ideal for movie buffs. Any you record will appear in the Movie Library for easy playback.

If you want to burn a DVD to watch in your home player, then right-click any recorded show, choose 'Make a CD/DVD' and select the 'Video DVD' option.

Sound and vision

WMC is not just about TV, however. And even without a TV tuner, it's still a very useful program. It can search your computer for music, photos and video files and display them in 'Libraries' that appear on the main menu. You can browse your media by folder, name, date, artist, genre, **tags** and so on. For photos, you can create and watch slideshows with music of your choice.

You can create a CD or DVD with any combination of photos and music without leaving WMC. Right-click any item and choose 'Burn a CD/DVD'. Choose between data CD, a data DVD or a multimedia DVD slideshow.

Share and stream

One of the most powerful capabilities of WMC is its ability to share photos, music, videos and recorded TV to other computers

on your network. Windows 7's Homegroup networking feature (see page 72) makes it easy to do this between Windows 7 computers, as well as XP or Vista PCs. Between two Homegroup PCs, clicking the 'Shared' tab in any Library allows you to browse as well as play back files on the other PC. By adding a Windows Media Center extender to your network, you can stream media, including live TV, to a TV set in another part of the house and control it remotely. So, for example, you could have your Windows 7 PC in an upstairs study, but access everything in WMC via the living room TV downstairs. The Xbox 360 games console has WMC extender capability built in, so if you have one of these, you don't even need to buy any new equipment.



▲ The PCTV Nanostick Solo

Added extras

Finally, there are some nice extras bundled in WMC. For example, you can play the built-in games, such as Solitaire or Chess Titans, using just your remote control. There's also a selection of optional subscription services, such as the Coolroom on-demand movies and Sky Player, which allows subscribers to Sky access to its live TV and on-demand movie service via the web – visit www.snipca.com/x1789 for further information.

So whatever your entertainment needs, WMC will have something to offer. Take a look at our Workshop on the following pages to find out just how easy it all is to get you started.

JARGON BUSTER

DVD writer A type of drive that allows you to create your own DVDs and CDs.

Hard disk A high-capacity disk fitted in almost all PCs and used to store both applications and the documents and files they create.

High definition A TV picture with a higher resolution than normal.

Network A way of connecting several computers and devices so that they can share data.

PCI Card Peripheral Component Interconnect Card. A small circuit board that plugs into a motherboard and adds new features.

PCI Express A faster version of PCI used by modern graphics cards.

PVR Personal video recorder. Stores recorded TV shows on hard disk, rather than tape or DVD. Most can be set to automatically record a whole series.

Tag A keyword used to describe a file.

TV tuner An expansion card that, when fitted into a PC, receives TV signals.

USB Universal Serial Bus. A standard that allows quick and easy connection of external peripherals, such as storage devices, to your PC. Devices can be added or removed while your PC is switched on.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

TUNING IN

TV tuners can either be connected externally via **USB** or installed in a **PCI** or **PCI Express** slot inside a desktop PC. A TV tuner can come with either one or two tuners, which can be analogue, digital (Freeview) or hybrid (combining both types).

For laptop users, the PCTV Nanostick Solo (www.pctvsystems.com) costs around £40. It's a compact USB

tuner with an extra-sensitive digital tuner for weak signal areas.

If you'd rather have an internal card, the Hauppauge WinTV Nova-T PCI card (www.hauppauge.co.uk) has a single digital tuner that costs about £45.

If you want a hybrid card, the Hauppauge WinTV HVR-2200 (www.snipca.com/x418) is an internal PCI Express model for

desktop PCs. It has two tuners that can receive analogue or digital TV signals for around £135.

Some retail tuners come with a remote control included, while others won't. Any Windows Media Center-certified remote control can be used with WMC 12 – it doesn't have to be the same brand as your TV tuner. Maplin sells one for £19.99 (www.snipca.com/x424).

Set up and use Windows Media Center

Get started with Windows Media Center and take full advantage of what it has to offer

If you've ever tried to set up a PC for watching TV, you'll know that it can be a frustrating experience. But with Windows 7 Media Center, Microsoft has spent a lot of time making it as foolproof as possible and, in our experience, it has succeeded with flying colours.

In this Workshop, we'll assume that your **TV tuner** (and remote control, if applicable) is plugged in and installed

correctly. Make sure the tuner is connected to a working aerial – an outdoor or rooftop one is usually best.

Here we'll explain how to tune your TV channels and do other essential tasks, such as scheduling TV recordings and managing your media collections. We can only scratch the surface here, but once you're up and running, there are many more features in Windows Media Center for you to explore.

STEP 1

LAUNCH WINDOWS MEDIA CENTER

(WMC) from the Start menu. Select the TV section from the menu and click 'Live TV setup'. You'll be asked to confirm your region so that WMC can configure the correct signal. Click Next and enter your full postcode – this is used only to get the correct local program listings. Continue by clicking Next and agree to the two licence agreements. WMC will download Play Ready, a required copy protection add-in. Next, WMC examines your TV signal for a short while and asks for confirmation of which installed tuner you want to use – you can use up to three tuners simultaneously.



TV Setup

Windows Media Center

TV Channel Scan

Windows Media Center has finished scanning for TV channels you receive.

Scan again

Delete All

98 channel(s) found

4Music
TMF The Music Factory
Yesterday
Virgin1
Ideal World

1 of 98

Next

STEP 2

NOW WMC WILL SCAN FOR TV CHANNELS. This can take quite a while. When it's done, you'll see a list of channels. Scroll through this list to see if all the channels you would expect are there. If not, try adjusting your aerial and scanning again. If all's well, press Next and then Finish to go back to the main menu. And that's it – you're now ready to watch TV. You can re-scan the channels at any time by choosing Tasks from the main menu. Click Settings, TV and TV Signal, then choose either 'Scan for more channels' or 'Setup TV signal'. The latter will take you through the setup process again from the beginning.

STEP 3

TO WATCH LIVE TV, SELECT THE TV MENU, then click Live TV. You can change channels with the '+' and '-' keys on your keyboard or from the control bar at the bottom right of the picture. The control bar will hide after a few seconds; show it again by moving your mouse or pressing an arrow key on your remote control. You can go directly to a channel by typing its number on the keyboard or remote control. On the control bar, you'll see the normal Play, Rewind and Fast Forward buttons that you can use to pause live TV. To record a programme you're watching, press the red Record button at the left of the control bar. Clicking the small box to the right of the record button launches the 'now and next' mini-programme guide.



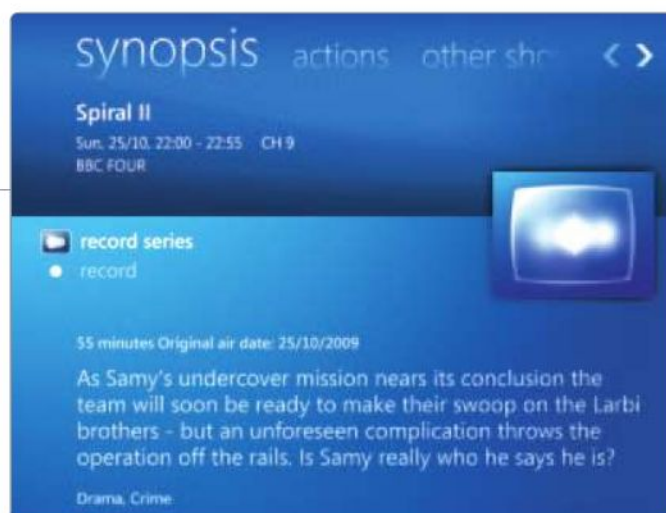
STEP 4

ALTHOUGH WMC NORMALLY DOES A GOOD JOB of detecting the best settings for your display, you might want to adjust these. WMC has some tricks to get your monitor or TV setup to give the best picture possible. Click Tasks, Settings, General, and Windows Media Center Setup, then choose 'Configure your TV or monitor'. Click Next and follow the **wizard** that will let you choose the correct type of display, connection type and the display **resolution**. When you finish this, you can optionally choose to calibrate your display's settings. This is easy, but can take some time fiddling with your TV or monitor control, so don't do it unless you're familiar with the settings.



STEP 5

USING THE ELECTRONIC PROGRAMME GUIDE (EPG) to schedule recordings is the best way to make sure you don't miss your favourite programs. Choose the guide by clicking TV, then Guide from the main menu. Find the show you want to record (you can also search for shows by clicking TV, then Search at the main menu) and click on it. You'll see the Synopsis screen and you can choose to record the show here or, if it's a series, record the entire series. The 'Record series' setting isn't always foolproof, so click on the Actions tab and choose 'Series info' to see which episodes are listed. If your PC has sleep mode enabled, it will now wake itself up to record scheduled programmes, then go back to sleep.



Media Library

Select folders that contain music

- ☒ Desktop
- ☒ Kelvyn
- ☐ Public
- ☐ Win7 (C:)
- ☐ Vista (D:)

2 of 7 ^ v

C:\Users\Kelvyn

STEP 6

WMC ISN'T JUST ABOUT TV, so let's look at how to organise your photos and music. WMC will automatically search the standard Windows 7 media Libraries (Music, Pictures, Videos, Recorded TV) for files, but if you want to add a location, click on Tasks, Settings, Media Libraries and choose the Library to set up. Click Next, choose 'Add folders to the Library', then Next. Choose 'On this computer...', then Next. You'll see a list of all the folders on your PC and the network, so check the box next to the ones you want to add and click Next. Confirm the changes on the next screen and click Finish. A box will pop up to tell you that WMC is looking for files. Click OK to go back to the main menu.

Networking in Windows 7

With Windows 7, it's easier than ever to network your PC with other computers at home

Windows has supported networking for many years, and although the underlying technology hasn't really altered, in every version changes have been made to the way it's configured and used.

While improvements are always welcome, for those users who are used to one version, it can be a very frustrating experience having to relearn everything from scratch.

In Windows Vista, some major changes were made, while Windows 7 has added a completely new concept (Homegroups), intended to make networking much simpler for everyone.

Vista users won't notice huge changes in the way networks are configured, as Windows 7 uses a similar interface. But if you're moving from Windows XP, it's a much bigger leap – although thankfully Windows 7 is, in many aspects, much simpler to understand.

In the following pages, we will highlight how Windows 7 makes networking easier, concentrating on the practicalities of setting up, using and troubleshooting a home network – whether your home network



▲The Network and Sharing Center is where all settings can be viewed or modified

consists of just a couple of Windows 7 PCs or a mix of computers running different versions of Windows.

Who needs a network?

A home network is a convenient way to allow computers to communicate with each other via a wired or wireless (**Wifi**) connection; this is normally via a **router** that acts as a central 'traffic manager' for the network signals and also provides the broadband internet connection (see our Workshop on page 76 to see how to connect a router).

WINDOWS 7 LIBRARIES

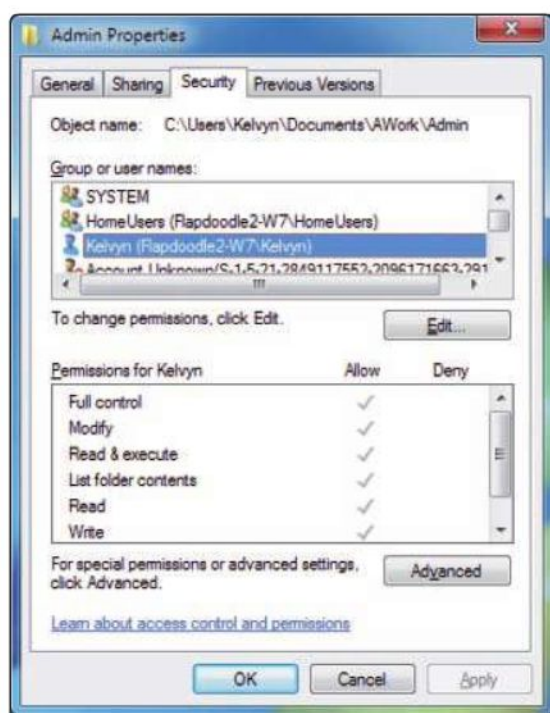
Understanding Windows 7's Libraries will be useful when you're sharing files over a network. A Library is a link to a collection of up to 50 separate folders; these can be local folders on a PC, on a network hard disk or even folders on another networked computer. The idea is that rather than having to remember all the folders containing your videos, for example, you add these to the Video Library.

Once done, you can view all your videos as a single collection and sort them by name, year or length, or by using the standard folder view.

Libraries make sharing files and folders over a network much easier – when you create a Homegroup, you can choose to share any of the Libraries with other Homegroup members. This saves you having to manually set the sharing permissions for each individual folder,

as was the case in previous Windows versions. Any locations added to a Library are also automatically indexed, making files easy to find using the Search box on the Start menu.

Windows 7 comes with four pre-configured Libraries (Documents, Videos, Music, Pictures), but you can add as many new ones as you wish. Also, a folder location can be added to several different Libraries.



▲ Each file has its own security settings to allow or prevent sharing over a network

This arrangement allows you to not only share the internet connection, but also share information that's stored on your computer – such as documents, folders or media files – with someone connected to the same network using another computer in a different part of the house. And it doesn't stop there: a network can also be used to share printers and other networked devices (such as networked hard disks or media players), meaning that any PC in the home can use them at any time.

Start here

All Windows 7's networking features are located in a section of the Control Panel called the Network and Sharing Center. Vista users may recognise this, although there are some important changes in this version. Once your network has been configured (see the Workshop on page 76), you can view all the details here and change settings if needed. The quickest way to access the Network and Sharing Center is to click the network **icon** in the **Notification Area**, then click the link labelled 'Open Network and Sharing Center'.

Security guards

The thing that confuses many people when it comes to networking is the subject of security – in particular, the concepts of user accounts and file permissions. These sound very technical, but are actually fairly simple ideas used to protect your files from being accessed by others.

Windows 7, as with XP and Vista, requires that there is always at least one user account set up on a PC. This account must also have

computer administrator privileges, meaning that the user is allowed to change system settings and add and remove software. Other accounts can be added, and in Windows 7 these can be either Standard or Administrator accounts. A Standard account has limited privileges – for example, the user cannot install or remove programs.

This system allows Windows to keep a record of which user created any particular file or folder on the PC, which is the key to the security of a network. Since a network allows users to share files, Windows needs to know who 'owns' each piece of information in order to allow or prevent other users accessing it.

Each file on a PC has its own security settings (right-click on any file in Windows Explorer and click the Security tab to see these) known as file permissions. These determine what any particular user is allowed to do with that file. A user who creates a file has, by default, full control of it, so they can view, delete or modify it as they wish. The rights of other users can be modified – so the owner of a file can decide to allow other users to view the contents of a file, but not edit or delete it, for instance.

This is a very powerful feature and is the basis of sharing files over a network. Changing the permissions on a file manually is fiddly, but fortunately Windows has several tools that make it simpler. In XP, the Shared Documents folder was the easiest way to share files with other users on a network, but it had its limitations – you still had to work out how to get all the PCs to talk to each other

JARGON BUSTER

Hard disk A high-capacity disk fitted in PCs and used to store both applications and files.

Icon A small image used by Windows to identify a file or application.

Notification Area An area on the bottom-right of the screen that shows which programs are running in Windows.

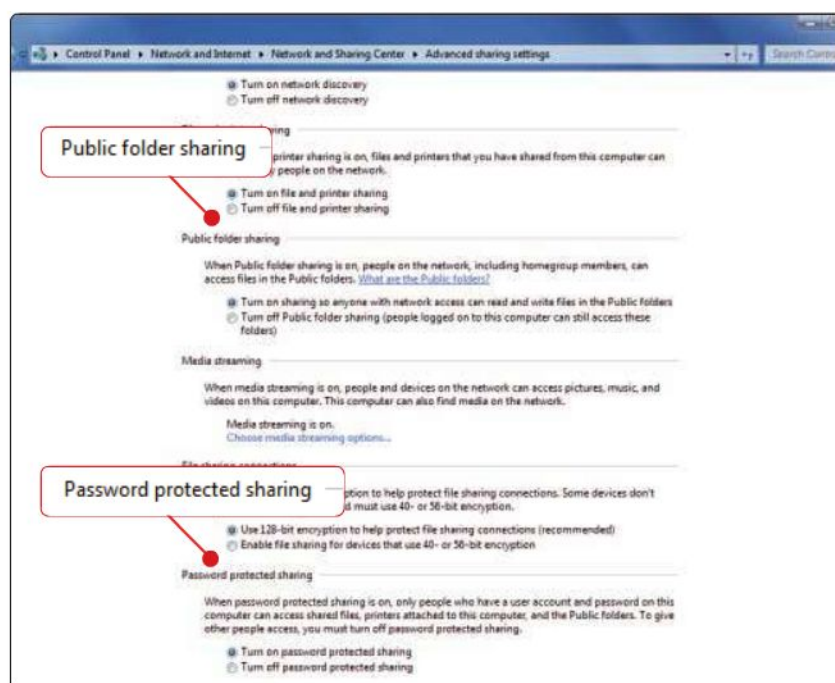
Router A device used to connect computers or device to the internet.

Stream Audio or video material that can be viewed as it is downloaded from the internet or transferred from another PC.

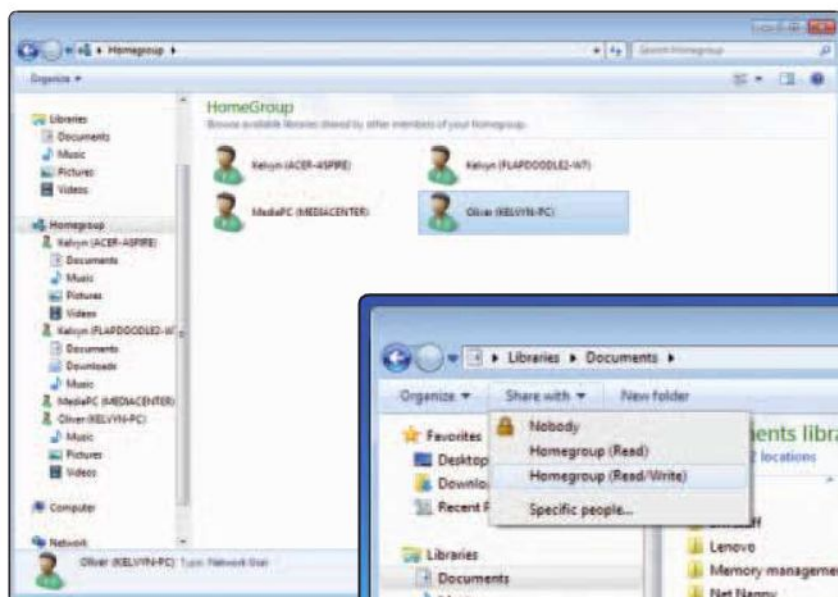
USB Universal Serial Bus. A standard that allows quick and easy connection of peripherals to your PC.

Wifi A term for various wireless networking standards.

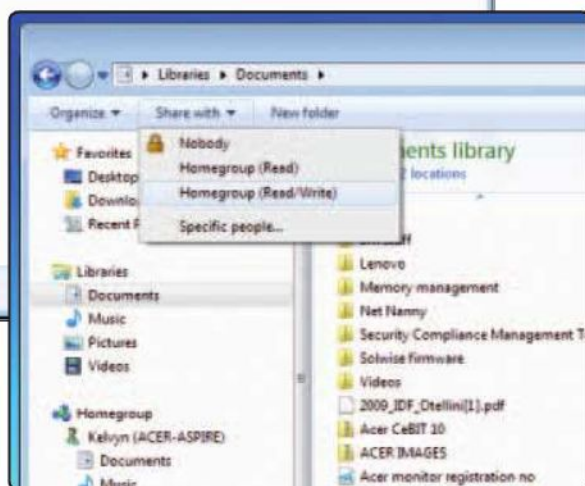
For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk



▲ Turn Public folders on or off and set password protection in the Advanced sharing menu



▲ Homegroups make sharing documents and printers a doddle



▲ Change the file permissions for any Library in a Homegroup

'Password protected sharing' section and click the 'Turn on password protected sharing' button (but if you want to network XP and Vista PCs as well, see the box on page 75 for some important information).

Note that in this advanced sharing section, there are lots of other options – we recommend that for now you don't change anything else here unless you're confident about what you're doing. To learn more, it's well worth taking some time to read the superb help documentation built into Windows – click on the highlighted help links or just press F1 on any screen to find clear instructions, step-by-step guides and even links to online video guides.

Homegroup sweet Homegroup

Public folders work well but can be a little cumbersome, as you have to manually copy files you want to share, as well as set up the security as previously described. However, Windows 7 introduces a new feature called Homegroups that makes sharing much simpler.

We show you how to create and join a Homegroup in the Workshop on page 76, but it's worth explaining what they are in a little more depth. The idea of a Homegroup is to allow computers to share documents, printers and other resources across a network without having to fiddle with all the various security settings and permissions. Note that Homegroups only work on Windows 7 computers – for Vista and XP, see the boxout on page 75. (Note that the Starter and Home Basic versions of Windows 7 don't allow you to create a Homegroup, but you can still join one).

When a Homegroup is created on the 'main' PC, by default it shares all Libraries (except the Documents Library, unless you specifically check the Documents check-box on the options screen) with other Homegroup users, including the Public folders. More importantly, it shares these with read-only access, meaning other users can only view the files – not edit or delete them. This is for safety, but it's easy to change (Step 7 in the Workshop).

You can only create one Homegroup on a network – every other computer on the network can then join this Homegroup, as shown in the Workshop. Using the Network and Sharing Center, you can easily leave or rejoin a Homegroup at any time, or change which Libraries are shared by clicking 'Choose

over the network. Windows 7 also has folders similar to the Shared Documents, but they are now called Public folders.

There are four of these: Public Documents, Public Music, Public Pictures and Public Videos. These are included in the appropriate Libraries (see the boxout on page 72 to find out what a Library is), but sharing them is turned off by default. To turn on sharing of Public folders, in the Network and Sharing Center click the 'Change advanced sharing settings' link, then in the Public folder sharing section click the button labelled 'Turn on sharing so anyone with network access can read and write files in the Public folder'. If you want to limit access to only those people with a user account on your PC, scroll down to the

▼ If you have network problems, Windows 7 troubleshooters are an excellent starting point



Homegroup and sharing options'. To share individual files or folders to a Homegroup, in Windows Explorer, simply highlight the file or folder and click the 'Share with' button on the menu bar.

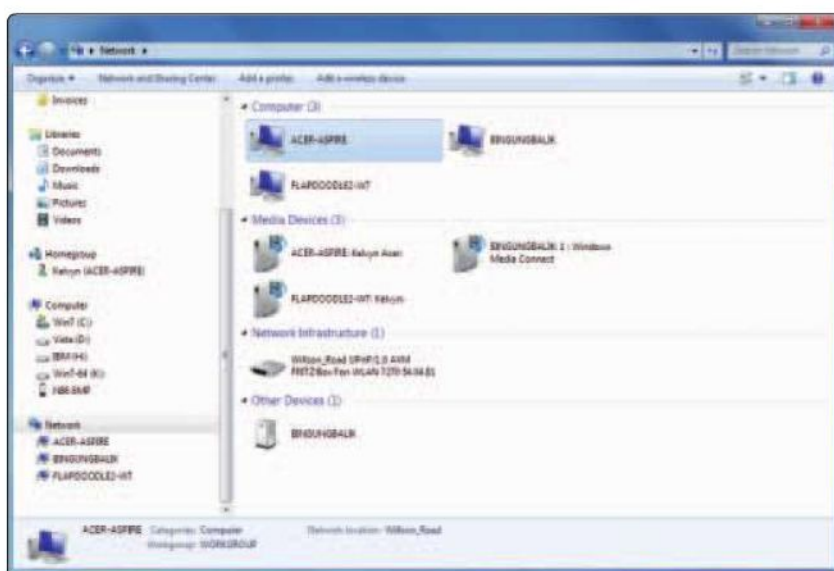
If you have problems getting the Homegroup to work, or for any other network-related issues, there are some excellent built-in automatic troubleshooters. In the Network and Sharing Center, click the 'Troubleshoot problems' link near the bottom of the window. A list of available troubleshooters should appear. Click the Homegroup one, then the Advanced link and check the box labelled 'Apply repairs automatically'. Click next and follow the instructions – most common faults can be identified and repaired in this way.

Share and share alike

As explained in Steps 8 through 10 of the Workshop, you can also set up media **streaming** and share printers using the Homegroup. The advantage of streaming music, videos or photos is that another PC on the network that wants to view or listen to these doesn't need to waste time copying the files to their PC. We also show you how to share any printer connected to any of the Homegroup PCs – when you join a Homegroup, any shared printer will be automatically detected and you'll be asked whether you want to install it or not.

Of course, you don't have to use the Homegroup feature in Windows 7. When computers are successfully added to the network workgroup (see steps 11-14 of the Workshop), if you click on Start, Computer and then click the Network link in the left-hand navigation pane, you'll see icons for each computer and other devices on the network. Double-clicking on one of the computer icons will let you browse any shared files and printers on that computer.

One feature that has been simplified compared to Vista is the ability to use different network profiles. These are collections of security settings that can be used in different locations – when using a



wireless laptop at home or in a public library, for example. Vista called these Public and Private networks, but in Windows 7 when you create a new network you're given a choice of Home, Work or Public.

Home and Work are very similar apart from the crucial difference that on a Work network, you can't create or join a Homegroup. The Public profile turns off all file sharing so that you'll be protected when connecting to a public network, such as one in an internet café or public library.

If all goes well, you should now have your home network up and running, with the computers and printers happily communicating with each other. We've only scratched the surface of the things a network makes possible but as you get used to how it works, you'll quickly find new things to do with it, such as playing multi-player games with your family or streaming music and videos around the house from a suitable networked hard disk. No more swapping files between computers using floppies, CDs or **USB** Flash drives, no more waiting for the PC that needs the printer to become free. In short, a network can let you concentrate on doing the things you enjoy.

▲ You can easily browse networked computers and other devices in Windows Explorer

MIXING XP, VISTA AND WINDOWS 7 PCS

Only Windows 7 PCs can use Homegroups, so to easily share files and printers with other Windows versions, you need to turn on Public folders and turn off password-protected sharing on any Vista or Windows 7 PC.

In Windows 7's Network and Sharing Center, click 'Change advanced sharing settings', then scroll down to 'Password-protected sharing' in the 'Home or Work' profile. Click the button labelled 'Turn off password-protected sharing'. Scroll up to the

'Public folder sharing' section and click the 'Turn on sharing...' button. Finally, click on Save Changes.

In Vista, the setting is in the Sharing and Discovery section of the Network and Sharing Center. Locate the 'Password-protected sharing' section and click 'Turn off password-protected sharing', then click Apply.

Now in the section labelled 'Public folder sharing', choose one of the 'Turn on...' options; the top one enables read-only access, the

middle one gives full read-write access. Next, click Apply.

On a Windows XP PC, open My Network Places and click View Workgroup Computers in the Network Tasks pane. You should see the Windows 7 and Vista PCs there. Double-clicking its icon will show any shared printers as well as a 'Users' folder containing all the Public folders on the Windows 7 or Vista PC. In Vista, the networked computers will appear in the Network section of Windows Explorer.

Set up or connect to a Windows 7 network

Learn how to create a wired or wireless home network from scratch with our guide

Windows 7 makes it easier than ever before to set up a **network** and share files, printers and more between your computers. There are, however, some important differences compared to networking in both XP and Vista. In this Workshop, we'll take you through the process of setting up a basic wired network using Windows 7. We'll then move on to take a closer look at making the most of the new

networking features of Windows 7, as well as show you how to add a wireless device, such as a laptop, to the network and how to run your Windows 7 PC in a network alongside a computer running XP or Vista.

In order to complete the Workshop, you'll need a wireless **router**, an **Ethernet** cable and at least two computers – one of which should have wireless networking capabilities.

STEP 1 **THE FIRST STEP** is to set up your wireless router. In our example, we are using a Netgear DG384N (www.netgear.co.uk), but most other makes and models follow a similar process. We're going to be concentrating on Windows 7's home networking features, so we won't be covering how to set up your internet connection. We'll assume that you already have a **broadband** connection up and running but if you're having trouble with this aspect, your **ISP** or cable provider will be able to help. To get started, make sure your router's power cable is attached and then switch the device on. The lights on the front will now start to flash and the router's start-up process should begin. This should take no longer than a minute or so.



STEP 2 **BEFORE YOU CAN SET UP** a wireless network, most routers need to be physically attached to a computer to access its configuration utility. Using an Ethernet cable (one is usually included with the router), connect one end to your computer's **Lan** socket and the other to one of the router's Lan sockets (there are usually four Lan sockets on a router). On the front of the router, the number of the Lan port that you connected to should start flashing, indicating that it's connected to an active device. On the computer, a wired network **icon** (a small computer screen with a wire to its left) will appear in the **Notification Area** at the bottom right of your screen.

STEP 3

TO MAKE SURE THE NETWORK is up and running, click on the icon in the Notification Area, then select the 'Open network and sharing center' option. When the window opens, you will see some basic information about your network, along with a diagram showing how your computer is connected to the router and, if applicable, the internet. It's also worth making a note of the router's **IP address** since you'll need this later in the Workshop. To do this, click Start, type **CMD** and press Enter. In the window that appears, type **IPCONFIG** and press Enter. Your router's IP address is listed under 'Default gateway' and will be something like 192.168.0.1.

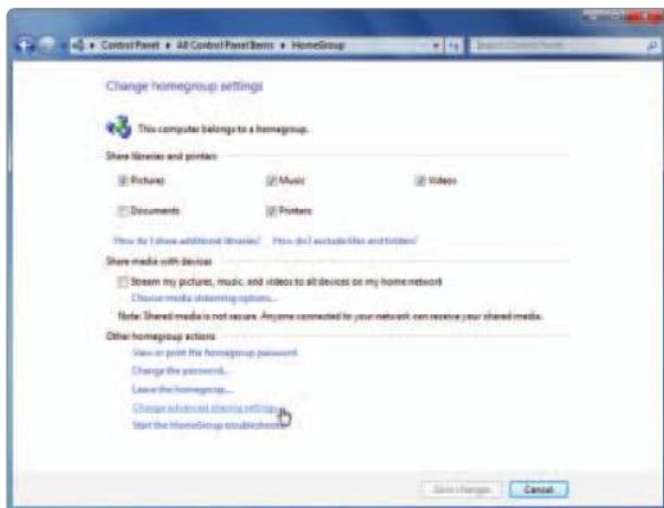


STEP 4

EXACTLY HOW YOU SET UP a wireless network will depend on the make and model of your router. With the Netgear router we're using, you first need to log in to the setup menu by opening a **web browser** and typing in the router's IP address (see Step 3). From the menu on the left, click Wireless Settings. Now give the network a suitable name under 'Name (SSID)'. Leave all other settings at their default, but under Security Options, select either **Wep** or **WPA** (WPA is the stronger of the two). Now enter a passcode into the 'Network key' box; make a note of this, because you'll need it when logging on to the wireless network later. Finally, click Apply to save the new settings.

STEP 5

BEFORE CONNECTING ADDITIONAL COMPUTERS to the network, it's best to set up a Homegroup. To do this, click on the Start button and select Control Panel. Under the 'Network and Internet' section, click 'Choose Homegroup and sharing options'. If you haven't already set one up, a 'Create a Homegroup' button will be displayed. Click on this to continue. Windows will now ask which libraries you want to share within the Homegroup; remove the tick from the box next to those you don't want to share. Now click Next to create the Homegroup. After a short wait, your Homegroup password will be displayed. Make a note of this, as you'll need it to add other computers to the Homegroup.

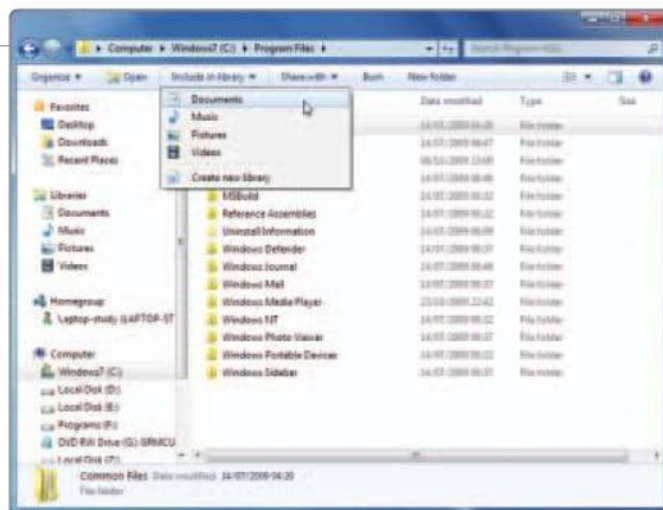


STEP 6

THE HOMEGROUP SETTINGS WINDOW will now appear. Here, you can change the library sharing settings that were made in the previous step; we'll show you how to share other files and folders stored on your PC in a moment. Further down the window, it's possible to view or print the Homegroup password as well as change it; if you do change it, you'll need to update it on all the other computers in your network. There's also an option to leave the Homegroup altogether. If you're experiencing difficulty in sharing files, the Homegroup Troubleshooter will attempt to automatically detect and fix the problem for you.

STEP 7

YOU CAN SHARE ADDITIONAL FOLDERS by highlighting them and, at the top of the window, clicking the 'Include in Library' button. Now select the library you want to include it in and, if that library is set up to be shared within your Homegroup, the folder will be available to the other computers. Alternatively, you can create a new library to include the folder in. If you do this, you'll need to make sure the new library is shared. This can be done by first typing **Libraries** into the Start menu's search box and pressing Enter. Now highlight the new library and, at the top, click on the Share With button and select 'Homegroup (Read)' or 'Homegroup (Read/Write)'; the latter allows users to both view and edit files.

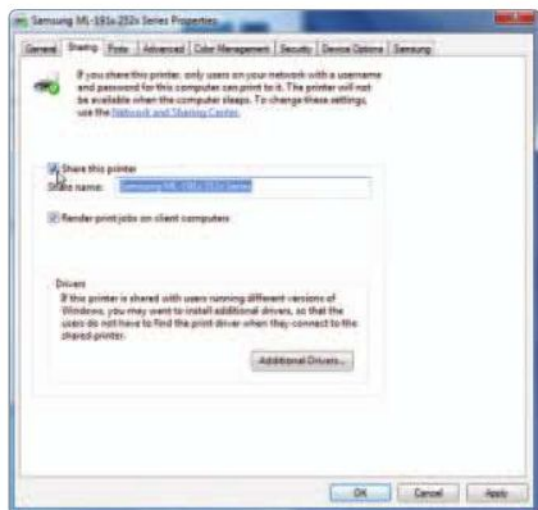


STEP 8

TO START SHARING MEDIA, return to the Homegroup window by clicking on the Windows Start button, typing **Homegroup** into the search box and pressing Enter. Put a tick in the '**Stream my pictures...**' box, which allows any streaming devices, such as a Logitech Squeezebox (www.logitech.com) or Netgear Digital Entertainer (www.netgear.co.uk), to access all media stored on the PC. Click on the 'Choose media streaming options' link to adjust further settings. In the window that appears, you'll see all streaming devices on your network; in this example, there's a Netgear streamer on the network. You can allow or block a device using the **dropdown menu** next to its name.

STEP 9

YOU CAN FURTHER CONFIGURE the media-sharing settings by selecting a device from the list and clicking on **Customize**. A new window will appear, allowing you to select exactly what type of media files should be shared to this specific device. The 'Use default settings' option is automatically selected, but if you remove the tick from this box, you can make various changes. For example, it's possible to share only media that has a certain star rating, allowing you to share your highest rated music, videos and photos, for example. Furthermore, you can use Windows 7's parental control settings to ensure children can't access media stored on another PC.

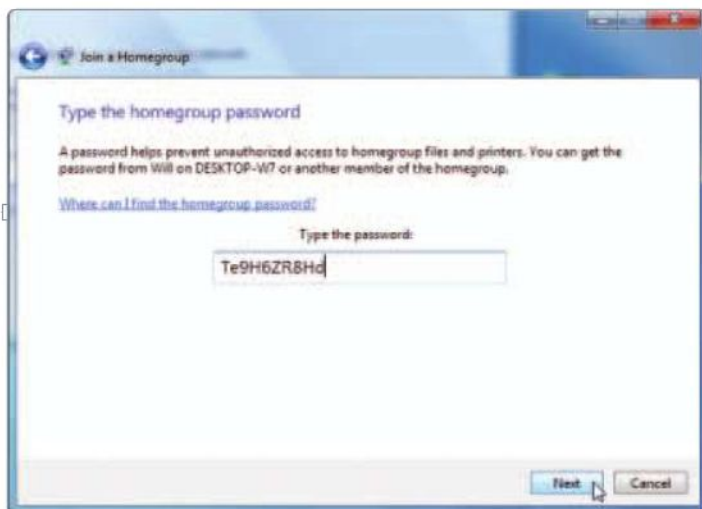


STEP 10

IF YOU'VE GOT A PRINTER attached to your Windows 7 PC, it can be shared among all computers on your network; the only caveat is that the PC with the printer attached will need to be switched on in order for the other computers to access it. First, click on the Start button and select the 'Devices and Printers' option on the right. Now, in the resulting window, double-click the printer you want to share. A new window will appear with details relating to your printer. Double-click the 'Customize your printer' option and then make sure there's a tick in 'Share this printer' box. Your printer will now be made available to all other computers on your network.

STEP 11

YOU'RE NOW READY to add a second computer to your network. This time, we'll connect a laptop via a wireless connection. On the laptop, click on the wireless network icon in the Notification Area. A window will now pop up listing all available wireless networks. Click your network, then click the Connect button that appears. You will now be prompted to enter the security key that was specified in Step 4. After a short pause, the wireless connection will be established. If your wireless connection doesn't appear in the list, it could be because the signal isn't strong enough; if so, try moving the laptop close to the router.

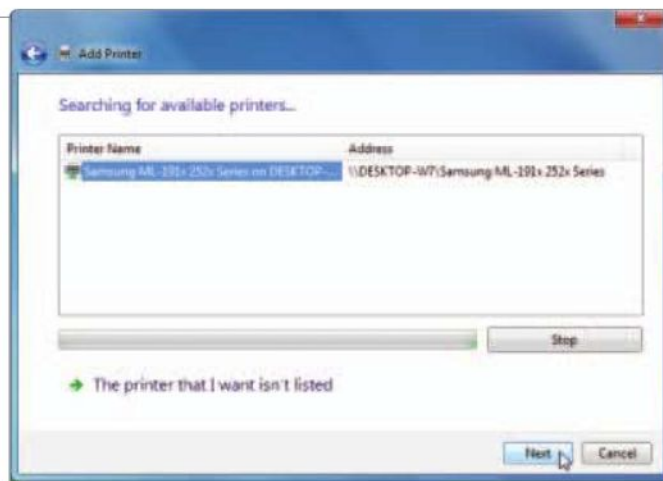
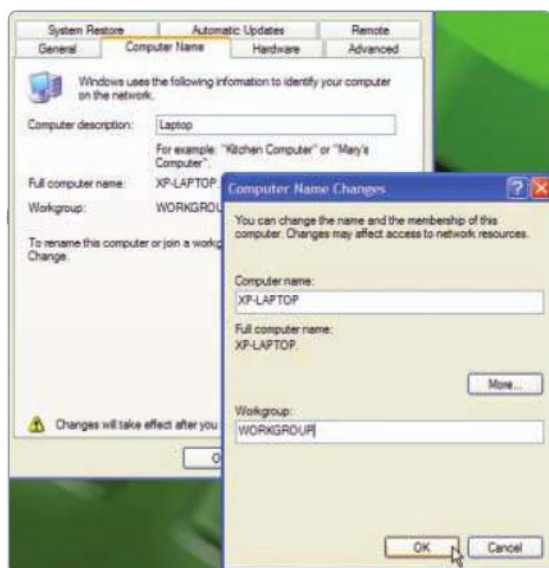


STEP 12

SOON AFTER CONNECTING, Windows will ask what type of network you're connected to. If you know all the computers on your network, select Home as this enables greater file-sharing capabilities. Windows should now invite you to join the Homegroup you created earlier; if it doesn't, type [Homegroup](#) into the Start menu's search box. Click the Join Now button and you'll be asked which libraries you want to share. Once you've chosen these, the Homegroup password window will appear. Enter the password that was generated in Step 5. Click Next and, after a short pause, your computer will join the Homegroup.

STEP 13

YOU CAN NOW ACCESS all shared files within the Homegroup. Click on Start, select Computer and on the left side of the window, click on the Homegroup option. Remember that files will only be available on those computers within the Homegroup that are switched on. When you join a new Homegroup, Windows will also automatically offer any new shared printers it finds. However, you can also add them manually by clicking on the Start button, selecting 'Devices and Printers', and then clicking the 'Add Printer' button at the top of the window. Select 'Add a network, wireless or Bluetooth printer' and Windows will scan the network for available printers.



STEP 14

HOMEGROUPS ARE ONLY AVAILABLE on Windows 7 PCs, so sharing files will be slightly different between those on your network running XP and Vista. To access files stored on older PCs, you'll need to make sure they're in the same workgroup as your Windows 7 PC. The default workgroup name for Windows 7 is WORKGROUP, so on each of your other PCs, click Start, then right-click Computer and select Properties. Under Computer Name, click Change Settings. In the resulting window, click the Change button and, under Workgroup, type [WORKGROUP](#). You'll now be able to access shared folders by clicking Computer from the Start menu and selecting the appropriate PC within the Network section on the left side of the window. For more on sharing files with XP and Vista, see page 75.

Routine maintenance



A little regular work can keep your Windows 7 PC in peak performance

It's an unfortunate fact that despite all the advances in hardware and software technology over the years, operating systems can still break and cause problems from time to time. Windows 7 is no exception, although in our experience since it was launched, it's noticeably more reliable than Vista and a massive improvement on Windows XP. Windows XP's trademark was the 'Blue Screen' error, and at times Vista seemed to be just a work-in-progress, with many software and hardware compatibility problems when it first appeared.

Windows 7 brings significant improvements in both reliability and performance, but it can still benefit from

regular maintenance to keep it in tip-top condition. This isn't a difficult task, as we will show you in this article and the accompanying step-by-step Workshop, but it's one that can bring significant rewards in terms of peace of mind for minimal effort.

Why, oh why, oh why?

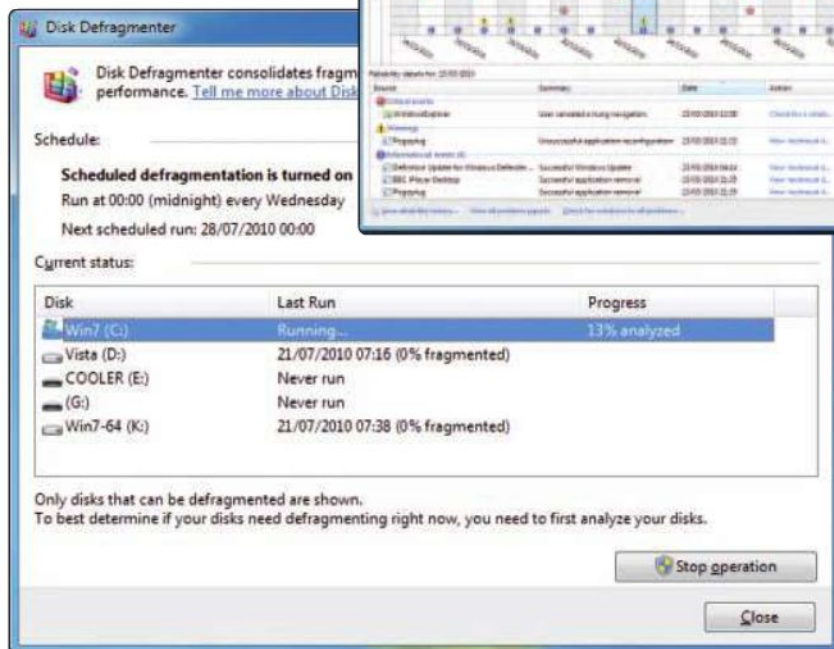
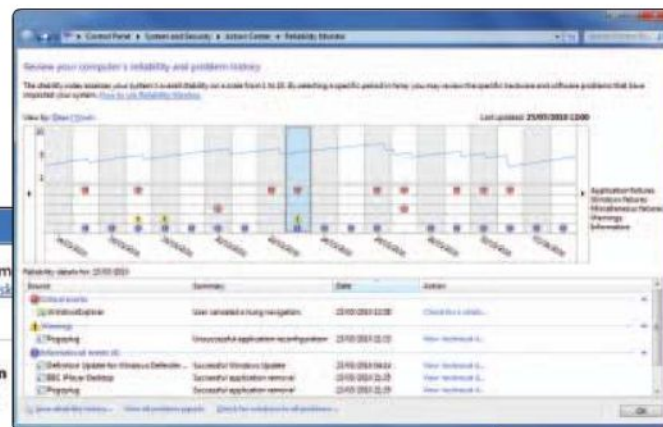
Users often find it difficult to understand why Windows seems to gradually slow down over time. Many think this is always due to **viruses** and other malicious software, but even a completely virus-free PC can become affected. Windows itself is sometimes the culprit, but third-party programs, hardware **drivers** and even users themselves can also cause problems that affect performance and reliability.

With a new PC, there are usually very few programs installed, and Windows feels nippy. Then we start to install our favourite programs, run anti-virus software, add new hardware and generally customise the PC to our tastes. Before you know it, your desktop is covered in **icons**, the **Notification Area** is overflowing with programs, and the computer itself takes forever to start up.

Users can be to blame, too. For example, do you always shut down your PC correctly using the Start menu command or do you just pull out the plug? If it's the latter, you're almost guaranteed to get problems

sooner or later. If you only use the PC occasionally, many of the essential 'housekeeping' tasks never get completed, which again can lead to performance degradation over time. At the other extreme, a PC left on 24 hours a day can suffer from 'memory leaks' in badly written programs – this means they use up more memory until

▼Defragmenting the hard disk is a simple, but important, task



▲Keep track of how well a PC is running with Windows 7's Reliability Monitor

Windows eventually runs out and crashes. Other common problems (ignoring those caused by viruses or **spyware** - these are dealt with in the article on page 56) are caused by programs that crash and leave behind broken bits of files, or badly written installation programs not cleaning up behind them. Windows itself is not particularly good at organising files on the hard disk. This means files can become 'fragmented', leading to poor hard disk performance. Sometimes a crashing program can cause file errors on the hard disk, which can be fixed using the built-in disk-checking program, Chkdisk.

At your service

A PC needs regular maintenance to keep it working well and Windows is no different. The good news is that Windows 7 contains many built-in tools to help you diagnose and fix performance problems. In our Workshop on page 82, we'll show you how to set up a regular maintenance schedule to help ensure that most common problems are kept at bay.

Windows 7 is much better in this respect than XP or even Vista, offering an improved range of maintenance and new troubleshooting tools and options. It pays to take a logical approach to maintenance and automate as many tasks as possible so that they don't become chores. Windows 7 includes a powerful tool for this - the Task Scheduler - that we explore in the Workshop, where we use it to automatically run the Disk Cleanup Tool. This program deletes unnecessary files that can accumulate on a hard disk, such files in the Recycle Bin.

A useful tool that helps you keep tabs on how well your PC is being maintained is the Reliability Monitor. This keeps track of all the problems encountered by the PC and rates the reliability on a scale of one to 10. It's very useful for tracking how well your PC is working over time, and helps to identify those things that might be causing problems.

Good practice, bad habits

Apart from the routine tasks that we cover in the Workshop, there are some bad habits that you should try and avoid. As mentioned above, turning your computer off correctly can prevent lots of nasty things happening, such as damaged system files. Laptops are often configured to enter sleep or hibernate modes when the power button is pressed, rather than completely shutting down. This is very handy as it allows the computer to start up quickly where you left off. It works by saving the contents of the PC's memory, including open programs and documents, to the hard disk. When the PC is turned on again, this data is quickly loaded back into memory. It works very well, but over time can cause problems as Windows needs to be completely restarted from time to time to work well.

We suggest that although using the sleep function is fine during the day, at least two or three times a week you should shut down completely by pressing Start then selecting Shut down. You should never pull the plug of a desktop PC unless it becomes unresponsive - even then, it's better to press the 'reset' button.

Another good habit to get into is keeping all your programs up to date. Individual programs sometimes perform their own update checks, which you should always enable where possible - often it's just a 'Check for updates' link in the Help section of the program menu. Windows' Automatic Updates can do some of this work for you, but it only covers Microsoft programs and some third-party hardware drivers. There is a good free program called the Secunia Personal Software Inspector (www.snipca.com/x1051) that constantly checks for any new updates to the programs installed on your computer.

In the following Workshop, we'll cover some simple housekeeping tasks that will help you to keep your PC working like it should. We will also show you how to automate some of these tasks, so that you won't even have to think about them. It may take a little time to set up, but that will be time well-spent if it can save you hours of frustration later.

JARGON BUSTER

Driver A program that allows Windows to communicate with a peripheral device.

Icon A small image used to identify a file or application.

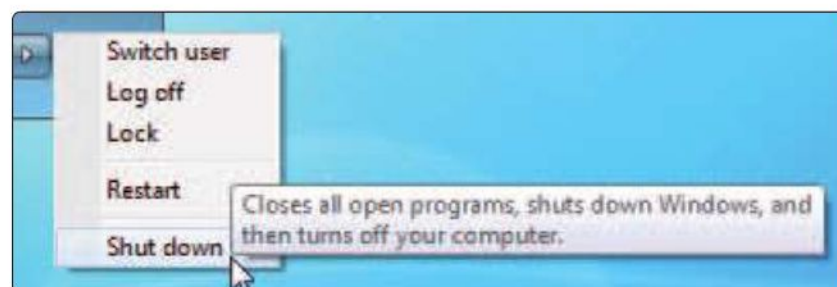
Notification Area An area on the bottom-right of the screen that shows which programs are running in Windows.

Spyware Software installed to monitor a computer's use.

Virus A malicious program designed to damage data.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

▼ Shutting your PC down correctly can save an awful lot of problems



▲ Secunia PSI is an easy way to help keep your installed programs running smoothly

Keep your PC at peak performance

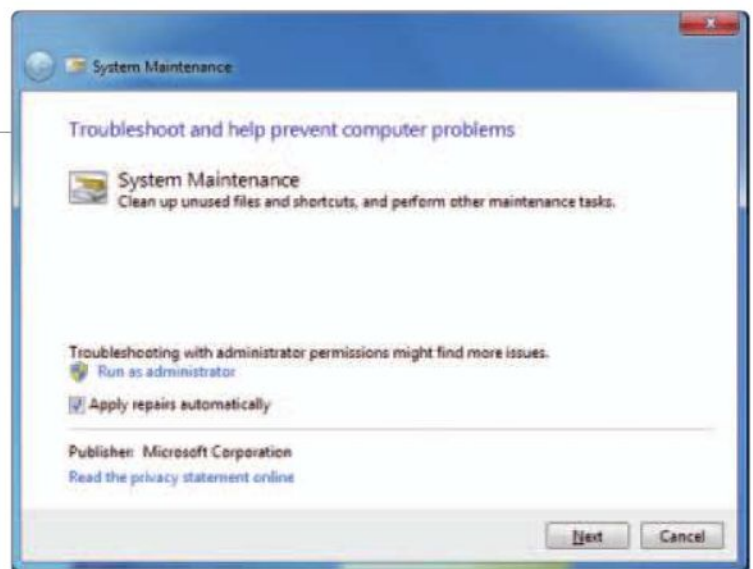
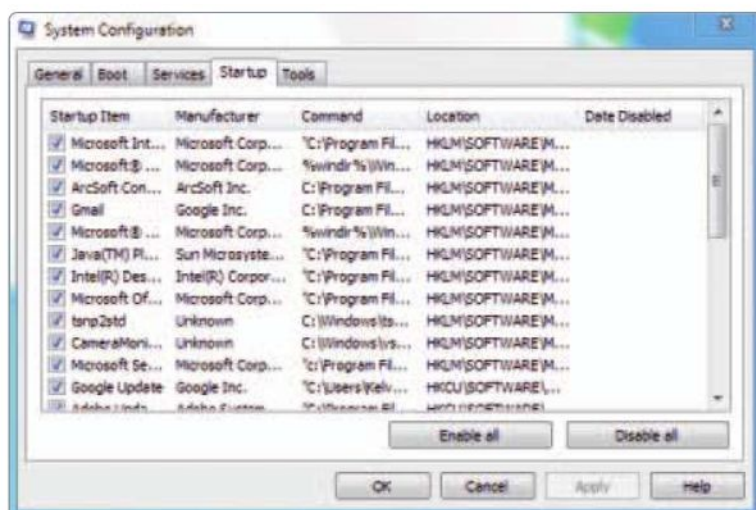
Save time and hassle by automating Windows 7 maintenance tasks

Keeping Windows 7 working reliably isn't as difficult as it sounds. For a start, Microsoft's new **operating system** benefits from some great tools designed to help keep it running smoothly. The better news is that by using the powerful Task Scheduler, some routine housekeeping tasks can be completely automated, making it even more convenient. In this Workshop, we'll show you how to do a quick maintenance check and get rid of unwanted programs that run when your PC

starts up. Then we'll show how to use Task Scheduler and disk cleanup tool to automatically clean up temporary files and other unnecessary clutter. We'll also look at some performance and reliability tools and automatic troubleshooting **wizards** that can help spot potential problems before they become serious. We will also explain how to use Chkdsk (a disk error-checking tool) and the Disk Defragmenter to make sure the PC's **hard disk** is working as efficiently as possible.

STEP 1

FIRST WE'LL USE the automatic System Maintenance wizard to find and fix broken shortcuts and desktop icons that haven't been used for a long time, as well as run a quick check for errors on the hard disk. This wizard also checks that the PC's clock is working correctly. Click Start, Control Panel, then click 'Find and fix problems' in the System and Security section. In the new window that opens, click 'Run maintenance tasks' to launch the wizard. On the first screen, click Advanced and then 'Run as administrator', entering an administrator name and password if asked. Click Next. After a few minutes, the wizard will report on any errors it has found and fixed.

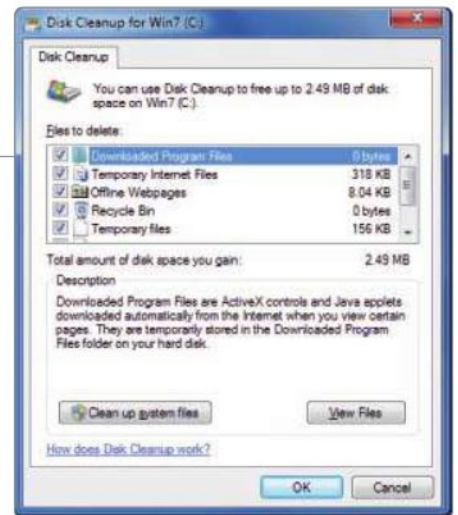


STEP 2

REPEAT STEP 1 as far as clicking the 'Find and fix problems' link. After clicking this, click 'Check performance issues'. Click Next and follow the instructions. The wizard will attempt to fix any problems but if you see a screen labelled 'Configure programs to improve startup performance', click 'Start System Configuration...' and you will see a list of startup programs. On a new installation of Windows, there will be no entries here. If there are any listed that you do not want to run when the PC starts, uncheck the relevant boxes, click OK and then click Restart. To undo any changes later, press Start and type **system configuration** into the search box, hit Enter, then click the Startup tab.

STEP 4

PRESS AND HOLD THE Windows key, then press 'R'. Type `cleanmgr.exe` into the 'Open' box and press OK to launch the Disk Cleanup tool. Choose a hard disk and press OK. After a few moments, this screen will appear showing how much space is being used by various unnecessary files. You can safely delete any of these by checking the box next to the name. For more choices, click 'Clean up system files', choose a drive and click OK. More files will now appear in the list – again, it is safe to delete any of these. When finished, click OK, then 'Delete files' to delete the selected items.

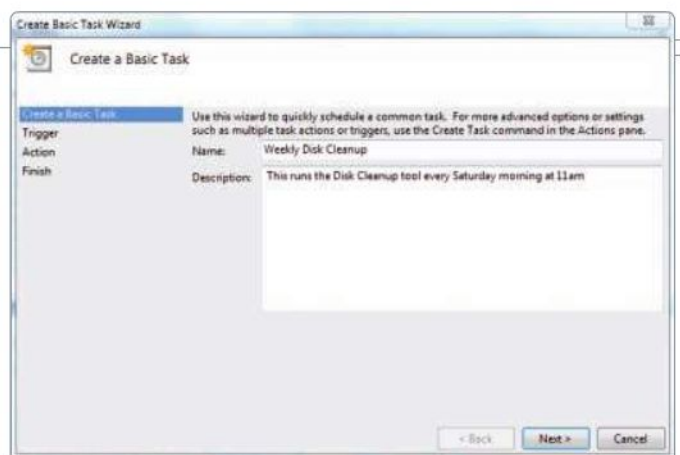
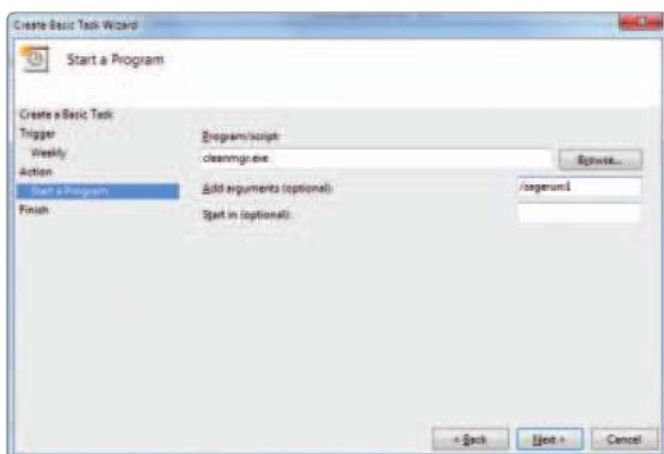


STEP 5

DISK CLEANUP IS VERY HANDY, so now let's see how to run it automatically once a week using Task Scheduler. Press and hold the Windows key and press 'R'. In the box, type `cleanmgr.exe /sageset:1`. Select the file types you want to regularly delete – we recommend at least choosing Temporary Internet Files and Recycle Bin. Click OK. Don't worry that nothing happens – we just created and stored a cleanup configuration to use with Task Scheduler.

STEP 6

LAUNCH TASK SCHEDULER by clicking Start, typing `task scheduler` into the search box and pressing Enter. In the large window that appears, click the 'Create Basic Task' item in the right-hand Actions pane. A separate smaller wizard window will appear. In the first screen, type a name and description for the task – here we've called it 'Weekly Disk Cleanup'. Click Next and on the next screen, click the button next to Weekly and click Next again. On the following screen, click the small calendar icon in the Start box to select the date and time for the first run. Now select the day you want it to run from the list underneath. Click Next.



STEP 7

ON THE NEXT SCREEN, select 'Run a program' and click Next. In the 'Program/script' box, type `cleanmgr.exe` and in the 'Add arguments (optional)' box, type `/sageset:1`. Click Next to see a summary of the task you've created and click Finish. Click on the 'Run' button in the right-hand pane to test it and you should see the small Disk Cleanup box appear, do its job and then disappear. Every week on the chosen day and time, if the PC is turned on and you are logged on, the task will run automatically. To disable or delete the task, open Task Scheduler again, locate the task in the 'Active Tasks' window, double-click it, then choose 'Disable' or 'Delete' from the right-hand pane.

STEP 8

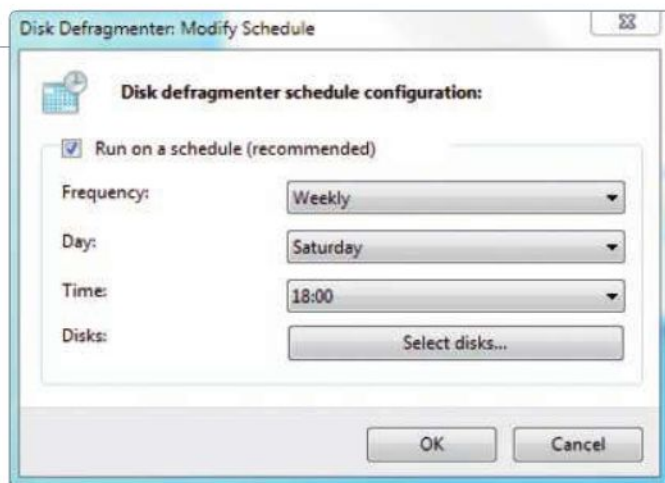
By default, the Windows 7 Disk Defragmenter program runs every Wednesday at 01.00, which is not a very convenient time for most users. If your PC is never on at that time the program may not run, eventually leading to potential problems. I'll show you how to change when it runs. Click Start and type [disk defragmenter](#) into the search box. In the dialog box that appears, click the 'Schedule...' button. Now you can select the frequency, day of the week, and time to run the defragmenter. We've chosen 18.00 on Saturdays in the screenshot. Click OK to close the box. You can run the defragmenter now if you click 'Defragment disk' or click Close to finish.



STEP 9

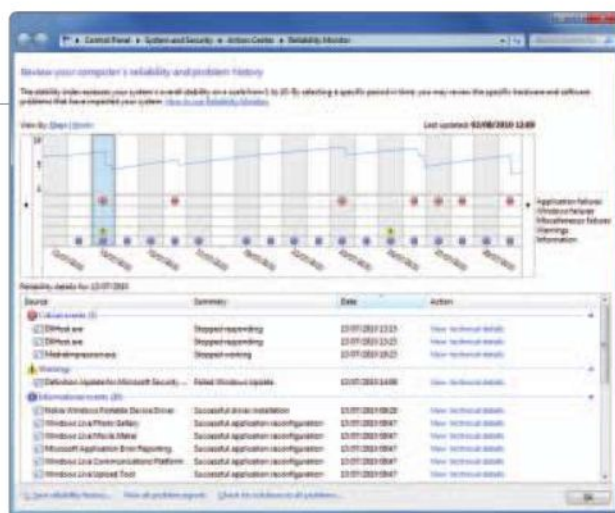
CHECKING A DISK FOR ERRORS is a task that should be run occasionally, say once a month or so. Windows automatically runs this check if it thinks there are any problems, but running it manually now and again is a good idea. Click Start, then

Computer and select a hard disk. Next, press the Properties button on the menu bar. Click the Tools tab and press the 'Check now...' button. Make sure the 'Automatically fix file system errors' box is checked and click Start. If a message appears saying 'Windows can't check the disk while it is in use', click the 'Schedule disk check' button. The check will run before Windows starts up the next time the PC is rebooted.



STEP 10

STEP 10 **THERE ARE MANY** troubleshooting and performance monitoring tools available that are useful for keeping an eye on how your PC is performing. One of these is the Reliability Monitor, which you can open by clicking Start, typing **reliability history** into the search box and pressing Enter. At the top of the window is a blue line showing the reliability score over time – the higher, the better. At the bottom, red crosses and yellow triangles indicate problems, with details shown in the lower half of the window. To check for known solutions to problems, click ‘Check for solutions to all problems...’ at the bottom of the window (you must be connected to the internet).



STEP 11

STEP 11 **ANOTHER HANDY PERFORMANCE TOOL** is the Windows Experience Index. This measures the performance of a PC's key components – **CPU**, graphics card, **memory** and hard disk – and gives an overall system performance score. It's not an essential tool, but it is useful for keeping an eye on how your PC is performing – if you feel your computer is very sluggish, you can run the test and compare the score to what it was when it was working properly. Click Start, type **windows experience index** into the search box and press Enter. Close other programs, make a note of the numbers, then click 'Return the assessment'.

[illegible]

Create Basic Task Wizard

Display a Message

Create a Basic Task

Trigger: Monthly

Action: **Display a Message**

Finish

This action displays a message box on the desktop.

Title: Weekly backup reminder

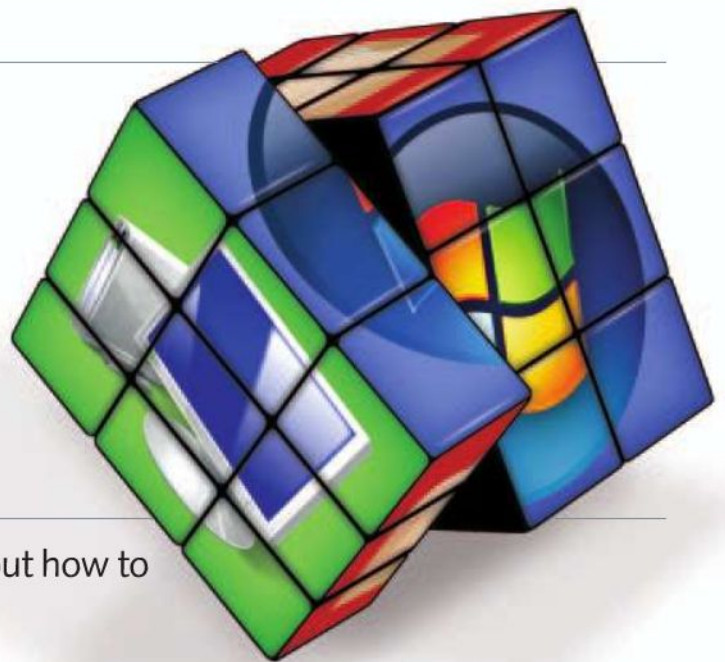
Message: Don't forget to backup your personal files today!

Weekly backup reminder

Don't forget to backup your personal files today!

OK Cancel

Problem solving

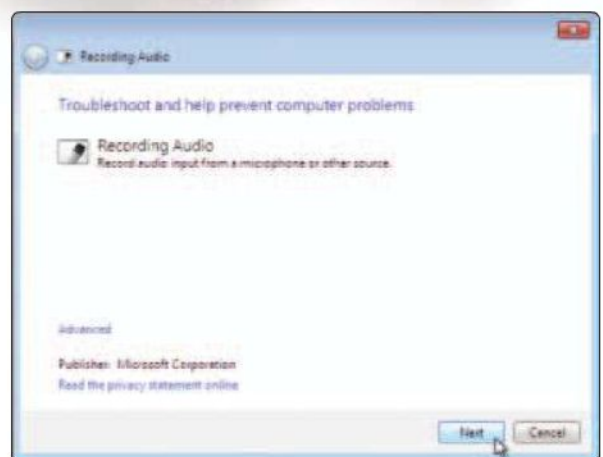


Can you fix it? Yes, you can! Read on to find out how to solve problems in Windows 7

We've said elsewhere that Windows 7 is more reliable than previous versions of the **operating system**. However, more reliable does not mean the same as totally dependable – in fact, far from it. Inevitably, there will be times when Microsoft's flagship product seems more of a hindrance than a help. Fortunately, the company isn't ignorant of the potential pitfalls for PC users and, as such, has built a bunch of problem-solving tools into Windows 7. Some are brand new, while others are old favourites given a spit and polish. All are covered right here.

Action stations

Though Microsoft has long included troubleshooting tips in its electronic Help files (Go to Start menu, then click Help and Support), with Windows 7 it has awarded problem-solving its very own section within



▲ Troubleshooting follows the familiar step-by-step wizard method

▼ Windows 7's Action Center organises troubleshooters by type



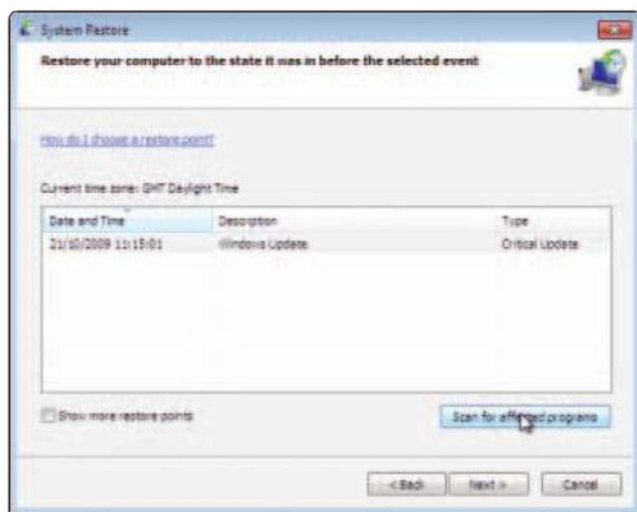
the Control Panel. Called the Action Center, which you will find in the System and Security panel (alternatively, click Start, type **troubleshooting** and hit Enter).

From here you'll find more than a dozen 'troubleshooters', categorised by problem type (Programs, Hardware, Networking and so on). They follow the familiar step-by-step **wizard** method employed for years by other aspects of Windows. In other words, as well as now openly acknowledging that parts of Windows might sometimes go wrong, Microsoft has built dedicated tools to deal with the most common problems. Applause all round.

The troubleshooters won't be able to diagnose and fix everything, but they're a good place to start when things go wrong.

Get the message

The Action Center, incidentally, is home to lots of other information that may be useful when troubleshooting. Reacting to user complaints, Microsoft has significantly calmed Windows' jumpiness. Previously, the **Notification Area** on the **Taskbar** seemed ready to pop up an alert for every mouse moment. Now, all but the most serious warnings and



▲ System Restore can take a PC back to a state where it was working fine

notifications are directed to the Action Center. This is a welcome evolution, but don't use it as an excuse for complacency. A problem you're attempting to troubleshoot could have been spotted previously by Action Center and headed off at the pass. Equally, a visit to Action Center may explain why an issue is occurring.

A more complex complement to Action Center is the Event Viewer. This isn't new to Windows 7, but it's the operating system's recording hub for all errors encountered by Windows. It's not necessarily one for novices, but a click around can't really do any harm and it may help you to identify the source of a problem. You'll find it in the Control Panel under the System and Security heading.

Program compatibility

Windows 7 is better at working with older applications than Vista was at the outset, but not every hardware and software product will work straight away – if ever. If an application or device won't work, use the Windows 7 Compatibility Center (www.snipca.com/x438) to see if it's a known offender.

If that turns up a blank, Windows 7 can run programs in a 'compatibility' mode. However, Microsoft has created unnecessary confusion here. Windows 7 has a Program Compatibility troubleshooter (in the Action Center) that attempts to work some unwritten magic on irksome older programs. However, if you own

the Professional, Ultimate or Enterprise editions of Windows 7, you can download an additional tool called Windows XP Mode to provides very reliable **emulation** for essential older applications.

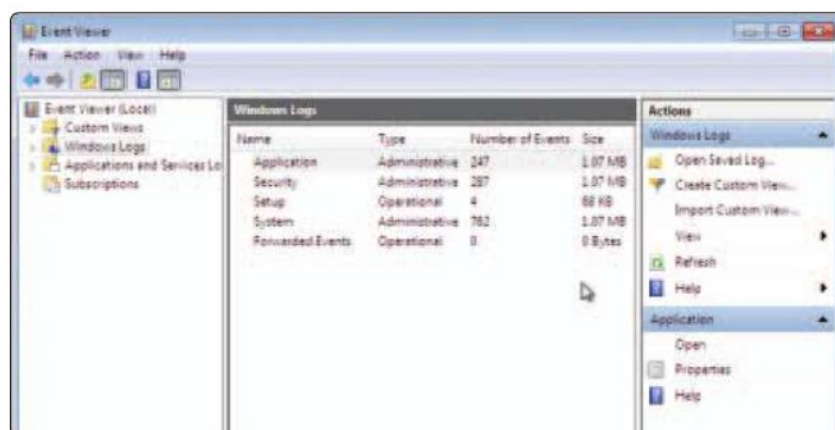
Record and recover

If the troubleshooting fails and the problem is recent, don't forget System Restore, which can 'rewind time' on a PC, taking it back to a point where it was known to be working fine. System Restore hasn't changed in much Windows 7, though it now has a 'Scan for affected programs' button to detail exactly which applications will be removed or altered at a Restore Point.

One barely mentioned feature of Windows 7 is the Problem Steps Recorder. This records key on-screen actions and saves them as an **HTML** file that can be sent away for problem-solving purposes. So, if there's a recurrent problem that can be demonstrated by repeating the same steps, use Problem Steps Recorder to capture the event and send the resulting file to your helper. To launch it, click Start, type **PSR** and hit Enter.

Sorted

So that's a quick guide to all that's new and improved for troubleshooting in Windows 7. Evidently, Microsoft has come a long way on the alerts and problem-solving front.



▲ Event Viewer is Windows 7's recording hub for all encountered errors

JARGON BUSTER

Emulator A program that makes one computer act just like another.

HTML Hypertext Markup Language. The language used to create pages for a website.

Notification Area An area on the bottom-right of the screen that shows which programs are running in Windows.

Operating system Governs the way hardware and software components in a computer work together.

Taskbar The bar that runs along the bottom of the screen in Windows.

Wizard A step-by-step process that helps you choose settings.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

WHERE TO FIND EXTRA HELP

Even with all the troubleshooters on offer in Windows 7, there may come a time when you'll need more help. Where to go next depends on how your copy of the operating system was obtained. If you bought and installed Windows 7 yourself (ie, you own a boxed copy with the original discs, bearing

Microsoft's insignia), then Microsoft Customer Support will – eventually – be prepared to talk to you. However, if Windows 7 came pre-installed on a new PC, Microsoft will refer you to the manufacturer for help. Either way, start the process at <http://support.microsoft.com> and you'll be directed accordingly.

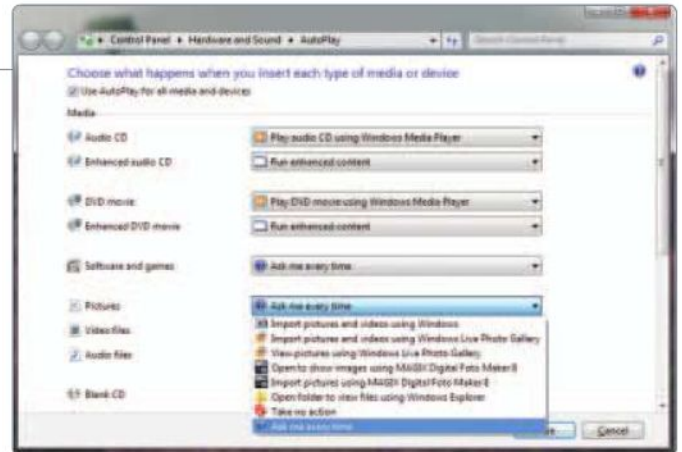


Advanced Windows 7 tips and tricks

Use these handy hints to get even more from your Windows 7 computer

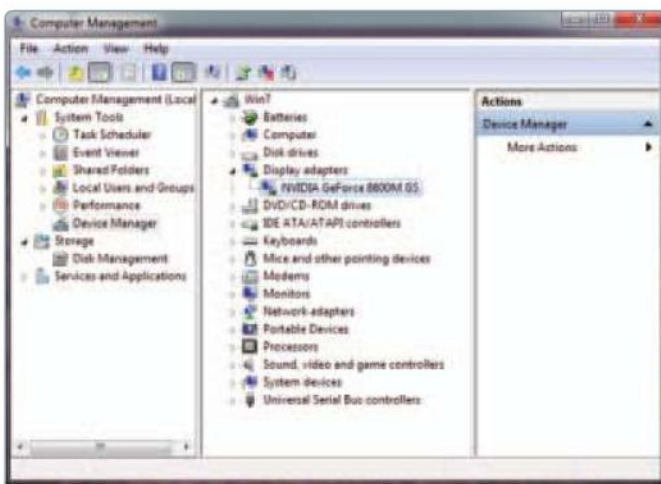
TIP 1

WINDOWS WILL DISPLAY A MENU of common tasks when you insert a CD, DVD, **USB memory key** or attach an external storage device. This is helpful, but it may be quicker to set one of the actions to take place automatically whenever a certain type of media is inserted, rather than being offered a choice of actions each time. Click on the Start button, type **autoplay** and press Enter on your keyboard. The Autoplay window will appear with menus for every kind of media that Windows recognises. Click on a menu and choose the action you want. If there is no entry for the action you want, select 'Take no action' to stop the menu from appearing. This is only the default action, so it doesn't prevent you from doing something else with the device.



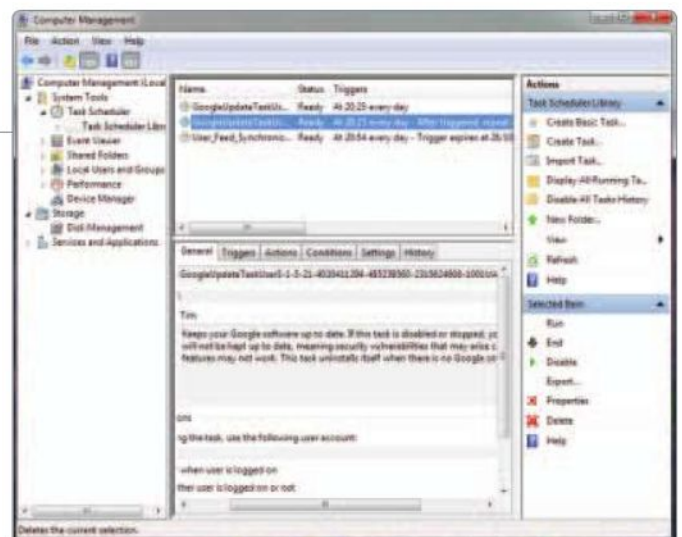
TIP 2

IF YOU ARE SERIOUS ABOUT GETTING THE BEST from Windows 7, you will need to get familiar with the Computer Management window. It allows you to monitor and adjust many settings within Windows. Click on the Start button, right-click on Computer and select Manage. You need to be using an Administrator user account to get the most from Computer Management. A useful starting place is Device Manager. Click on its entry on the left. A list of all the hardware fitted in the computer will appear in the main part of the screen. Any problems will be shown with a yellow triangle or red cross. Right-click on an option to see actions.



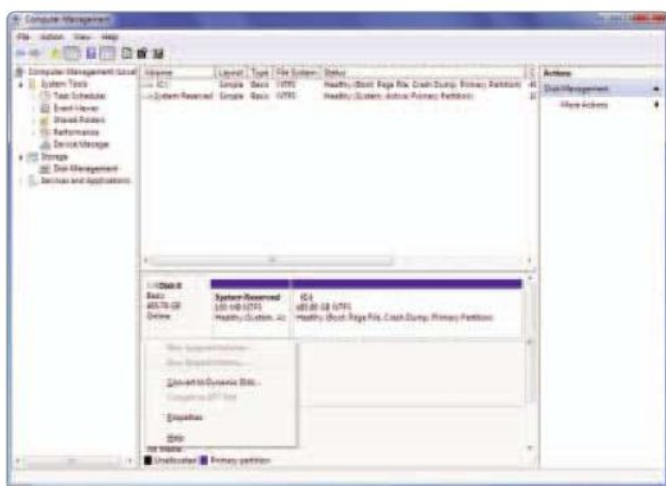
TIP 3

TASK SCHEDULER IS A GREAT TIME SAVER. It can be used to display reminders or start programs at a particular time. Open it from the Computer Management window or type task in the Start Menu. Click on Task Scheduler Library to see all the tasks already set up. There may be options for the Google Updater here, for example. Click on 'Create a Basic Task' on the right to start the **Task Wizard**. Name the task, click Next and select when it should run. A useful option is to set the task to run when you log on, which is more specific than just at startup. Click on Next. The task can start a program, send an email or display a message. Turn to page 82 for an example of how to use the Task Scheduler.



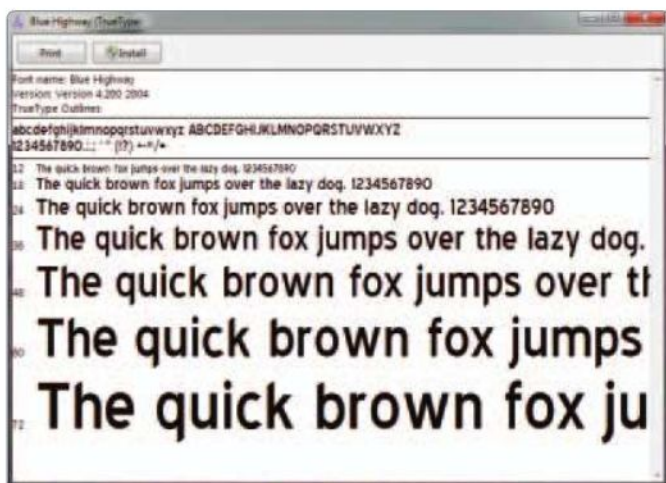
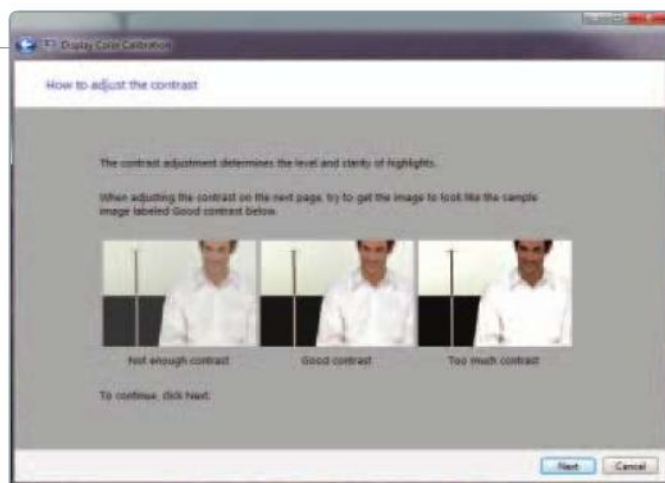
TIP 4

IF YOU WORK WITH IMAGES FOR PRINTING, even if it's at home with an **inkjet printer**, it's important to use the right colour settings. If you don't, what looks right onscreen may look dreadful when printed. Windows 7 comes with a basic tool for setting up your monitor. Laptop users don't have the same control over their displays, but there are still options that can be optimised in this wizard. Click on the Start button, type **calibrate** and press Enter on your keyboard when 'Calibrate display color' is highlighted. Follow the instructions in the wizard and make any changes as necessary. The final step will include an option, already selected, to use ClearType. This improves text on **LCD** monitors, but should be deselected if an older **CRT** monitor is being used.



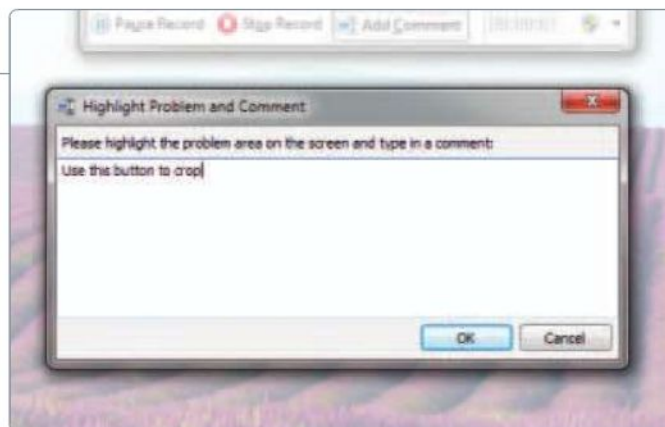
TIP 6

TO MAKE DESCRIBING AND FIXING problems easier, the Windows Problem Steps Recorder takes a record of **screengrabs** along with a description of what was clicked or typed. Click on the Start menu, type **problem steps** and then click on 'Record steps to reproduce a problem'. Click on the 'Start record' button and demonstrate either the problem or solution. You can mark an area with a comment by clicking on the 'Add comment' button. Click on 'Stop record' when you are finished. Give the recording a name and click Save. The resulting **Zip file** contains a web page with screengrabs, comments and information about typing and mouse actions. Watch a Microsoft video of the utility at www.snipcam.com/x436.



TIP 5

WINDOWS 7 CAN USE SEVERAL hard disks to improve performance with a technique called 'striping'. This balances work between two or more hard disks. But if one disk has a hardware fault, the information on all the disks used for striping will be lost. The disks should be empty, as they will be wiped during the installation, but you may need to delete existing **partitions** before starting. Click on the Start menu, right-click on Computer and select Manage. Click on Disk Management, right-click an unallocated part of one of the disks you want to use (marked in black) and select 'New Striped Volume'. Follow the wizard to select the correct disks, choose a drive letter and **format** the drive.



TIP 7

THE OLD WINDOWS 3.1 font installation tool has finally been given the axe and the Font Preview window is used to install fonts instead. Double-click on a font file to see the preview and click on the Install button if you like it. If there are several fonts to install at once, click on the Start menu and type Fonts. Press Enter to see the Fonts folder. **Drag and drop** the font files into this folder to install them. Font families are stacked to avoid cluttering the folder. **Double-click** on a group of fonts to see the individual files. Click on a font once and then on the Delete button in the toolbar to uninstall it.

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Closing date: 15th October 2010



On the disc

Our disc is packed with great software. We have listed the main applications below, and over the page you'll find tips on how to get started with the best ones

JARGON BUSTER

Attachment A computer file sent with an email message.

Download Transferring files onto your PC from the internet.

Firewall Prevents unauthorised access to a PC over a network.

GB A measurement of storage.

Graphics card Displays the image you see on a monitor.

Hard disk A high-capacity disk fitted in PCs and used to store both applications and files.

Javascript A programming language used on websites.

MP3 A standard for compressing digital audio.

Playlist A list of audio tracks queued for playback.

Phishing A form of internet fraud.

Processor The chip that is the 'brain' of the computer.

Ram Used for data storage.

Upload Transferring data to another PC on the internet.

USB Universal Serial Bus. Allows quick and easy connection of external devices to your PC.

Virus A malicious program.

For more Jargon Buster definitions see page 97, or visit: www.computeractive.co.uk

Software listing

Featured software

- Bit Defender AntiVirus Pro 2011
- Webroot Internet Security Complete

Internet tools

- Chrome 5.0.375.125
- Firefox 3.6.8
- Firefox Portable 3.6.8
- Opera 10.60

- Safari 5.33.16.0 (with Quicktime)
- Thunderbird 3.1
- Thunderbird Portable 3.1.1

Other tools

- Autoruns 10.02
- Desktops 1.02
- Disk2vhd 1.62
- Fast Duplicate File Finder 2.8.0.1
- Foxit PDF Reader 4.1

- iTunes 9.2.1.5
- PeaZip 3.2.1
- Process Monitor 2.91
- Similarity 1.3.6
- TaskBar meters 1.1
- Teamviewer 5.0.8703
- VLC Media Player 1.1.1.1
- Windows 7 Upgrade Advisor

USING THE DISC INSIDE THIS ISSUE

The Computeractive Ultimate Guide to Windows 7 uses a web-browser-style interface. It requires the .NET Framework included with Windows 7 and Vista, or installed on Windows XP via Windows Update. To install the .NET Framework, click on the Start button and My Computer. Right-click on the CD drive and left-click on Open. Double-click on the dotNET Framework folder and run dotnetfx1.exe and then dotnetfx2.exe.

Starting the disc

The disc browser should start automatically in Windows XP. Windows 7 and Vista users will need to click on the

UGTBrowser.exe option in the Install or Run program section of the AutoRun menu that appears. If the browser does not start, click on the Start button and then My Computer. Double-click on the icon for the drive containing the disc and then on UGTBrowser. Should there be a problem with the browser software, open the welcome.html file on the disc using your web browser.

Problems?

We cannot give technical support on individual programs contained on this disc.

Faulty disc

For details on disc support and

FAQs about the discs, go to www.computeractive.co.uk/disc-support. For faulty or damaged discs, please email disc_support@computeractive.co.uk for a replacement, giving the details requested on the website. If you have no internet access, then call 020 7316 9706, 10am to 6pm, Mon to Fri.

Installing/running the software

For software requiring registration, Computeractive cannot guarantee that serial codes will be available later than three months from the on-sale date of the magazine. Please avoid disappointment by registering your software promptly.

General licence restrictions, September 2010

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PLEASE READ INSTALLATION AND SYSTEM REQUIREMENT INSTRUCTIONS CAREFULLY BEFORE USING

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BitDefender Antivirus Pro 2011

Keep your PC free of malicious software with this powerful anti-virus tool

BitDefender Antivirus Pro 2011 is a powerful security package that scans your computer and removes **viruses** and malicious software. An anti-phishing module protects you when browsing the internet and its Automatic Vulnerability Scan highlights security holes on your

PC. In addition there are other advanced tools to stop data leaving your PC.

SYSTEM REQUIREMENTS

Windows 7, Vista, XP

CONTACT

www.bitdefender.co.uk

NEED TO KNOW

During the setup process, you will be asked to 'Provide a Licence Key,' but this isn't necessary as the version on our free CD includes a six-month licence. The same screen will explain that you already have a 183-day licence. Click Next and the installation will continue as normal.

STEP 1

INSTALL BITDEFENDER ANTIVIRUS PRO 2011 and it will add an icon to your System Tray. Hover the mouse cursor over this, though, and it will probably warn you that "multiple issues are affecting the security status of this PC". This probably isn't as bad as it sounds, but double-click the icon anyway for a closer look. BitDefender will now display its Dashboard – the central control panel where you can decide how you want the program to work. If there are security problems, then the Security tab will be highlighted with a red exclamation mark. Click the 'View & Fix All Issues' button for more information, and the program will probably say it has not been updated yet, or you haven't performed a scan. Click the Start button and BitDefender will solve these problems for you.



STEP 2

AFTER SCANNING, BITDEFENDER ANTIVIRUS PRO 2011 will remove any malicious software that might be on your system. To find out how it got there, and reduce the chance of reinfection, the program can also scan for missing updates, weak passwords and other security flaws that may leave you open to attack. Click the Security tab and select Vulnerability Scan. Accept the default scan settings, click Next and BitDefender will check for missing Windows security updates. Any critical updates will be displayed – click Next to install them. The following scan steps will make sure that your other key applications are up to date, and that your Windows accounts have strong passwords. The program will highlight any problems, so click the Fix link to solve them.



STEP 3

BY DEFAULT, BITDEFENDER DISPLAYS only its most basic interface, which is very easy to use, so it hides many useful functions. If you are an experienced PC user, or just want to view everything the program has to offer, click Options, followed by Expert View to get the big picture. One useful task you might want to perform now is to schedule a daily Quick Scan, a very fast check for malicious software that might be in your Windows or application folders. To try this, click the Antivirus tab on the left, then Virus Scan, and click the Schedule button to the right of the Quick Scan task. Choose how often you would like the scan to run – when your PC starts, for instance – then click OK and the scan will run automatically from now on.



Webroot Internet Security Complete

This comprehensive security suite will keep you safe from just about every threat

Every time you go online, you expose your PC to a host of threats and dangers. Install Webroot Internet Security Complete, however, and you'll be protected from them all. An anti-virus engine blocks malicious software, a **firewall** watches for network-based

attacks, and you also get anti-**phishing** protection and a junk email filter.

SYSTEM REQUIREMENTS

Windows XP (32-bit), Vista (32/ 64-bit), 7 (32/64-bit), 300MB free hard disk space, IE 6.0 or higher, Firefox 3.0 or higher

CONTACT

www.webroot.co.uk

NEED TO KNOW

This program will keep your PC safe for three months from the date of installation. You will then need to buy a new licence. Click My Account, then Buy Now in the program to find out more.

STEP 1

INSTALLING WEBROOT INTERNET SECURITY SUITE is easy and only takes a few minutes, although it won't immediately allow access to every program feature. For instance, if you want to share files, back up your data online, or protect and manage your internet passwords, then you must also create a Webroot account. But don't worry, as it only takes a moment. Double-click the Webroot Internet Security Suite system tray icon to launch the program, then click My Account, Manage My Account, and Create Account. A browser window will open at the Webroot site. Enter and confirm your email address, choose a password that you will remember and no-one else will guess, then click Create Account. Click the 'Verify email' button in the Webroot email you will receive, and that's it – your account is now ready for use.



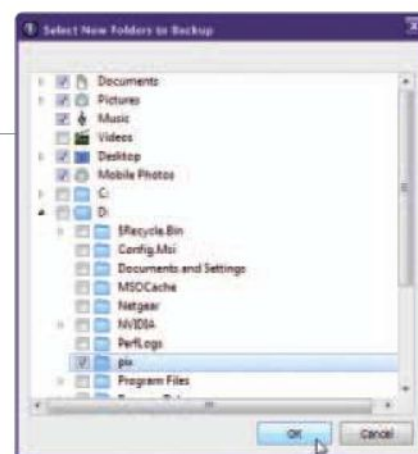
STEP 2

SWITCH BACK TO THE WEBROOT INTERNET SECURITY SUITE

console and you will see icons for each area of the program: PC Security, Sync and Sharing, System Cleaner and Identity Protection. If an area has no problems, it will be highlighted with a green tick, but because you have just installed the program, most will probably display warning exclamation marks instead. Fortunately, these problems can be addressed quickly. For instance, the PC Security icon is probably just warning that you've not scanned your system yet. Click the Scan Now button to put this right. Your first system scan may take a long time, but there is no need to wait for it to complete – you can click on other icons, explore the program and the scan will continue in the background.

STEP 3

ONCE YOU'VE CREATED YOUR WEBROOT ACCOUNT, you can take advantage of the program's 10GB of free online storage space, which is perfect for quick backups. Click Sync & Sharing, then 'Open File Manager' and click Manage Sync Folders. Here you can back up your most important files, so if they are accidentally deleted, or your hard disk is corrupted by a **virus**, you can recover them within minutes. To try this out, simply click 'Add Folders from this Computer' and check the folders you would like to protect. Click OK and the files will be **uploaded**. Now open a browser window, go to my.webroot.com, log in with your Webroot account and password, and your files will be visible. This means you can now access them from any internet-enabled device – even a mobile phone.



VLC Media Player

Watch music, videos, DVDs and more with this fast and feature-packed media player

If you are looking for a replacement to Windows Media Player, there is no better candidate than VLC Media Player. It launches in a flash and can open many file types that Windows Media Player doesn't understand. You can also use VLC Media Player to convert files from

one format to another, or to play CDs or DVDs. You can create playlists, enable visualisations, apply special effects and a whole lot more.

SYSTEM REQUIREMENTS

Windows XP (32/64-bit), Vista (32/64-bit), 7

(32/64-bit), 75MB free hard disk space

CONTACT

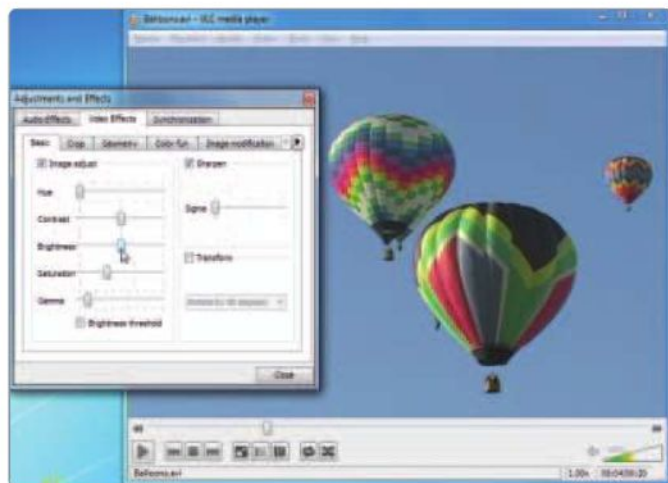
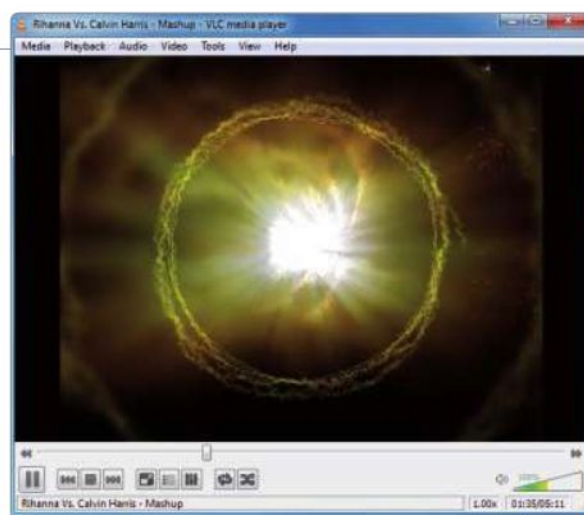
www.videolan.org

NEED TO KNOW

VLC Media Player has alternative, free-to-download interfaces that can give it a variety of looks. Visit www.videolan.org/vlc/skins.php.

STEP 1

IF YOU ALLOW VLC MEDIA PLAYER to associate itself with all multimedia files when it installs, it will become your default media player, opening automatically whenever you double-click a file. But if you forget this, don't worry, it's easy to do it later. Launch VLC, click Tools, Preferences and then select 'Set up associations'. Check the Set All box and click Save, then Save again to record the change. Now double-click an **MP3** file, say, and VLC Media Player will launch to play it. The default player looks a little bare, but that can easily be changed. If you like Windows Media Player's visualisations, for instance, there are similar options available here. Click Audio, then Visualisations. Select one and enjoy the special effects as your music plays.



STEP 2

OPEN EXPLORER, find a video file, drag it onto the VLC Media Player window and the clip will immediately start to play. This could be a more convenient way to launch a file if you already have a VLC window open. You could watch the video as it is, but VLC Media Player can apply special effects that might make it even better. Click Tools, then Effects and Filters, then Video Effects and the Basics tab, for example, and you can tweak the video's brightness, contrast, colour balance or sharpness. If the audio is out of sync with the video, click the Synchronisation tab for a simple fix. And don't miss the Audio Effects tab, which includes a graphic equaliser that's ideal for enhancing music.

STEP 3

CLOSE THE EFFECTS WINDOW FOR NOW and switch back to the player. Drag and drop a few more music files onto the program, then try pausing and playing tracks to get a feel for how everything works. When you are happy, click View, then **Playlist** – you will see the program has recorded all the audio and video files you have played so far. Remove any files you would rather not include (just right-click them and select Remove), then click Media and Save Playlist to File to save your playlist. Now, in future, simply double-click that playlist and VLC Media Player will launch and play each of those tracks in sequence. If you would like more variety, then click the Random button (far right on the toolbar) to play your tracks in a random sequence.



Windows 7 Upgrade Advisor

Uncover any potential problems you might have with Windows 7 – before you upgrade

Windows 7 is an excellent operating system – fast, reliable and with interesting new features. It's not too demanding on your hardware either, and should install on most modern PCs. If you are thinking of upgrading, it's a good idea to check your system for possible

compatibility problems first by installing Windows 7 Upgrade Advisor.

The program is easy to use – just get it up and running, and it will check your PC's hardware, devices and applications for Windows 7 compatibility. You will then get a report covering any problems.

In many cases, you will also get links to solutions, drivers, updates and more.

SYSTEM REQUIREMENTS

Windows XP (32/64-bit), Vista (32/64-bit)

CONTACT

www.snipca.com/x1850

STEP 1

THE WINDOWS 7 UPGRADE ADVISOR will try to check all your devices for their compatibility with Windows 7, but it can only do this if they are plugged in and turned on. So, connect all your major external devices – not **USB** Flash drives, as they work anywhere, but printers, webcams, scanners and so on – before you start. If you have got a lot of hardware, then it's possible you might run out of USB ports, but that's not a big problem. Just put the devices you did not test to one side, and after you have run the Upgrade Advisor once, unplug the first set of peripherals, connect everything else and run the program again. But for now, once you've set up your hardware, install Upgrade Advisor, launch it and click Start Check to begin the scanning process.



STEP 2

ON SOME SYSTEMS, UPGRADE ADVISOR will finish its work in a few seconds. However, if you have a complex setup with lots of devices and installed applications, it may take several minutes to check everything. Be patient – you will soon see a detailed report with more information on your upgrade options. The System section, for instance, will tell you which Windows 7 edition you can upgrade to and whether your PC can run the 64-bit or only the 32-bit version. In addition, Upgrade Advisor also checks whether your **processor** and **graphics card** are powerful enough to run Windows 7 properly, and that you have enough **RAM** and **hard disk** space. If you do, then you will see green ticks everywhere; if not, a yellow exclamation point will highlight the problem.

STEP 3

THE DEVICES SECTION, further down the report, similarly picks out any of your peripherals that are not compatible with Windows 7, while the Programs section warns you of possible problems and, in many cases, explains what to do about them. Here, for instance, Upgrade Advisor is recommending that we uninstall iTunes before the Windows 7 upgrade, then reinstall it afterwards to avoid any issues. In some cases, the report will include links. Click these for more advice or to find downloads that may solve a particular problem. However, if Upgrade Advisor can't help, don't give up. Try the Support section of your hardware manufacturer or program author – in many cases, they will have precisely the Windows 7 upgrade advice you need.



Foxit Reader 4.1

View and add comments to any PDF file with this fast and powerful tool

Books, manuals, brochures, forms – just about any document you can **download** will usually come in the form of a PDF file. Windows 7 cannot read this format itself yet, but there are free alternatives and Foxit Reader is one of the best.

The program loads quickly. Double-click even the largest PDF file and Foxit will display the document straight away. Foxit Reader also includes new security features to keep you safe, as rogue PDF files are commonly used to infect PCs. For example, a Safe Reading mode now warns you if a document tries to execute a **Javascript** function, launch an **attachment** or perform some other potentially dangerous action, helping you to block viruses.

The program also comes with a stack of features. So, for instance, you can comment on a file by adding

text notes, drawings, links, file attachments, and even images or movies. You're able to save all or part of a PDF document as a simple text file. And Foxit Reader doesn't just display PDF forms – it also allows you to fill them in and save the completed results.

SYSTEM REQUIREMENTS

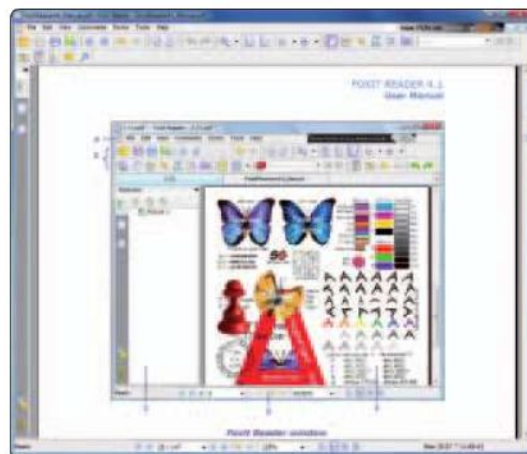
Windows XP (32/64-bit), Vista (32/64-bit), 7 (32/64-bit)

CONTACT

www.foxitsoftware.com

NEED TO KNOW

Install Foxit Reader 4.1 with care. By default, the program will install browser toolbars unless you disable this option in the setup process. Foxit Software has written many commercial tools to help you create, reorganise, edit and generally work with PDF files. If Foxit Reader is not powerful enough, go to www.foxitsoftware.com to see what else the company has to offer.



▲ Foxit Reader quickly loads and displays even the most complex of PDF files

PeaZip

Read the contents of almost any archive file with this comprehensive archiving tool

It's easy to work with ZIP files in Windows 7. However, if you come across an archive in TAR, RAR, GZ, 7Z or just about any other archive format, Windows won't know what to do with it. So, in order to extract the contents, you will need extra help – and here we have the perfect program for you.

PeaZip is an archiving tool that understands all the major archive file types. In addition, PeaZip can open 118 file types, including older archive formats and various documents and files.

It's easy to work with PeaZip, too. The archiving tool's integration with Windows Explorer means you can extract the contents of any archive by right-clicking it and then choosing the appropriate option from the PeaZip menu. Creating archives themselves is just as straightforward.

There's also plenty of power available from PeaZip if you need it. The program can scramble data, delete files securely, and allows you to create multiple archives at once for the best possible performance. Check out the program's Help file to find out more.

SYSTEM REQUIREMENTS

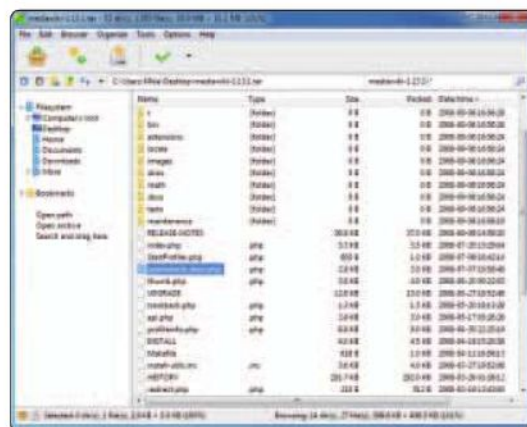
Windows XP (32/64-bit), Vista (32/64-bit), 7 (32/64-bit)

CONTACT

<http://peazip.sourceforge.net>

NEED TO KNOW

Powerful though PeaZip is, you can extend the program even further with add-ons from the author's site, where you will find support for working with ACE archives, BartPE, custom SFX modules, icons, themes, wallpapers and much more. Go to peazip.sourceforge.net/peazip-add-ons.html for a closer look.



▲ With support for reading 118 file types, PeaZip will be able to handle any archive you might encounter

Glossary

32-bit Most home computers are 32-bit, but some newer models are 64-bit.

64-bit A 64-bit computer, when used with a compatible 64-bit operating system, can work with more memory than a standard model, which is useful for some applications.

Anti-virus Software that detects, repairs, cleans or removes virus-infected files from a computer.

Applet Small utility program within Windows, such as Calculator or Scandisk.

Backup A file, folder or external storage device that stores copies of valued documents.

Back up The process of copying your important computer files and documents from your hard disk to removable media (such as CDs or DVDs) or another computer, to protect against loss of the originals.

Bios Basic Input Output System. Software built into all PCs to control the basic operation of devices such as the screen and keyboard. When a PC is switched on, the Bios automatically starts, and looks for a source (such as the hard disk) from which the operating system can be launched.

Blog Short for 'web log', a blog is an online journal or news site. Most blogs provide a download called an RSS feed, which means you can set up a blog reader to download new articles as they appear without visiting the site.

Bluetooth A technology that allows devices (computers, phones, printers etc) to communicate with each other wirelessly over short distances.

Boot The process a PC goes through after it is switched on: performing a quick self-test and loading Windows.

Broadband A fast internet connection, such as ADSL.

Burning The act of writing data onto a CD or DVD.

CRT Cathode-ray tube. The glass tube-based technology used to produce an image in most TV sets and computer monitors.

Cursor A flashing shape displayed on the screen showing where the next character you type in will appear. When entering text in a word processor, the cursor is normally a flashing vertical bar.

Dialogue box A window that pops up on screen to display or request information.

DLNA A standard for media streaming devices.

Double-click To click twice quickly in succession on a mouse button. If you double-click on an application icon, Windows will then attempt to launch the application.

Drag and drop To move something by clicking it, then holding down the left button on a mouse.

Driver A program that allows Windows to communicate with a peripheral device.

DRM Digital Rights Management. Software that protects media files from illegal copying.

Dropdown menu A list of options that appears when you click a menu bar or button.

Dual boot Installing two operating systems on a single PC. The user can then choose which to load when the PC is switched on.

Email Electronic mail. A system of sending notes between computers via the internet.

Encrypt To scramble data – be it text, audio or video – so it can only be read by the sender and authorised recipient.

Ethernet A type of wired network.

Firewall Software or hardware that prevents unauthorised access to a PC over a network.

Font A set of letters, numbers and other symbols in a particular style. Popular Windows fonts are Arial and Times New Roman.

Format To prepare a disk for use.

GB Gigabyte. A measurement of storage capacity, usually for hard disks. 1GB is equal to 1,024MB (megabytes).

Hackers People who break into other people's computers and networks, often in an attempt to steal sensitive information.

Hard disk A high-capacity disk fitted in almost all PCs and used to store both applications and the documents and files they create.

HTML Hypertext Markup Language. The language used to create pages for a website.

Icon A small image used by Windows to identify a file or application.

Imap Internet Message Access Protocol. A system that allows email users to manage messages stored on a remote server.

Inkjet printer Type of

printer that squirts tiny dots of ink onto the page to form text and images.

IP address Internet Protocol address. An identifying number of a computer attached to a network. A computer's IP address is similar to a phone number in function. Every computer connected to a network must have an IP address. IP addresses are written as four sets of numbers separated by full stops – for example, 204.171.64.2.

ISP Internet Service Provider. A company that provides you with an internet connection, either for a fixed monthly fee or for the cost of local call charges.

Kbits/sec Kilobits per second. A measure of data transfer.

Lan Local-area network. Describes two or more computers connected, either physically or wirelessly, with the ability to share resources, such as printers.

LCD Liquid-crystal display. Technology that is used to create low-power, slim display panels. Used in everything from digital watches to flat-screen monitors.

Malware A generic term for software designed to perform harmful acts.

For more Jargon Buster definitions visit:
www.computeractive.co.uk

Glossary

Memory The PC's temporary storage area, measured in megabytes.

Memory key A thumb-sized USB storage devices.

Modem A device that enables two computers to communicate with each other over a telephone line.

MP3 A standard for compressing digital audio. The sound quality of an MP3 file is close to that of CD audio but needs only a fraction of the storage space.

Network A way of connecting several computers and devices so they can share data.

Newsgroups Discussion areas on the internet, where you can post a message and read replies from other people, like an office noticeboard.

Notification Area An area on the bottom-right of the screen that shows which programs are running in Windows.

NTFS NT File System. A file system that is used by Windows NT, XP and Vista.

Operating system Governs the way hardware and software components in a computer work together.

Partition A large hard disk can be split into two or more partitions or 'virtual' drives. Once partitioned, each section is treated by Windows as

though it were a completely separate, smaller hard disk.

PDF Portable Document Format. A file format that allows pages of text and graphics to be viewed and printed correctly on any PC.

Peripheral A device, such as a printer, connected to a PC.

Phishing A form of internet fraud that tries to trick you into revealing personal details.

Pop Post Office Protocol. A system for remotely accessing email from an ISP.

Pop3 Post Office Protocol 3. A system for remotely accessing and retrieving email from an ISP. Most email applications and ISPs use Pop3.

Pop-up A window that is displayed by a website, usually over material already on the screen.

Port A numbered channel through which a PC communicates with the internet.

Resolution The amount of detail shown in an image, whether on screen or printed.

Right-click Most actions in Windows are performed by clicking the left mouse button. However, since the arrival of Windows 95, many programs, and Windows itself, make

use of the right mouse button click to display a pop-up menu with special functions.

Rip To digitally extract the music data from a CD-Rom or audio CD. Ripping a track from an audio CD is the first stage of compressing it as an MP3 file.

Rootkit Software that gives a malicious user administration rights and access to a computer.

Router A device used to connect more than one computer or other device to the internet.

RSS Really Simple Syndication. A simple format for automatically distributing news headlines and other content from the web.

Screen grab Also screenshot. An image of what was displayed on screen at a particular moment. A screen is captured to the clipboard in Windows by pressing the Print Screen key. You can then copy it to a graphics file or simply print it off.

Server A computer on a network, such as the internet, that distributes information to other PCs.

Shortcut A file that acts as a link to something else, such as a program file or disk drive.

Spam Junk email sent to large groups of people offering such things as money-spinning ideas,

holidays, and so on. Named after the Monty Python Spam sketch.

Spreadsheet A software application for creating sheets of calculations, set out in rows and columns. They may be used for accounting, budgeting, and any other sort of financial or mathematical calculation. Better spreadsheet programs also have graphical abilities, allowing charts and graphs to be plotted. Leading programs include Microsoft Excel and Lotus 1-2-3.

SSID Service Set Identifier. A name used to identify a wireless network.

Stream Audio or video material that can be viewed as it is downloaded from the internet or transferred from another computer. Streaming media sometimes stalls if the source material is received slower than it is played back.

Tag A keyword used to describe a file.

TV tuner An expansion card that, when fitted into a PC, receives TV signals.

UAC User Account Control. Part of Vista that attempts to protect your PC by verifying major decisions.

USB Universal Serial Bus. A standard that allows quick and easy connection of external

peripherals such as storage devices to your PC. Devices can be added or removed while your PC is switched on.

Wallpaper A pattern or image used as the background to your Windows desktop. It helps to personalise your PC or to promote a corporate identity but serves no other practical purpose.

WAV file Also known as a Wave file and saved with a .wav extension. An audio file, used for recording music and other sounds to disk. Because they are uncompressed, WAV files can be very large.

Web browser A program developed for viewing websites.

Webmail An email account that is accessed via a website.

Wep Wired Equivalent Privacy. An old security standard for wireless networks.

Wizard A step-by-step process that helps you choose settings.

WMA Windows Media Audio. A compressed digital music format developed by Microsoft that allows secure encoding of music.

WPA Wifi Protected Access. A secure form of protection for wireless networks.

Zip file A file that can contain a number of compressed files.

For more Jargon Buster definitions visit:
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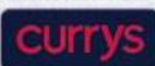
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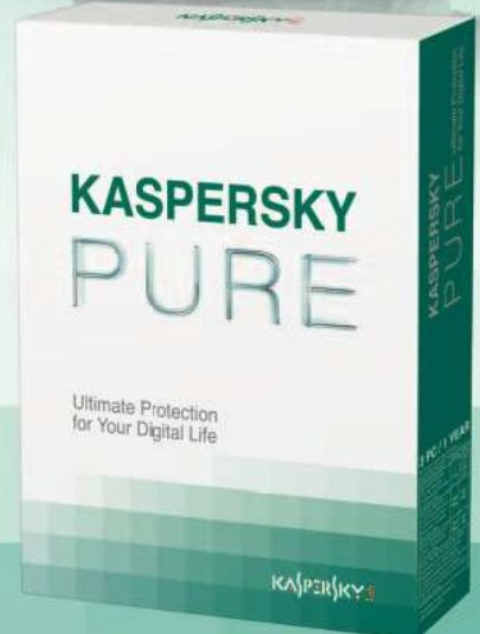
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