Ultimate
HOW TO ▷

47 STEP-BY-STEP WORKSHOPS

Take a great digital photo

Calibrate your monitor

Manage your email

COMPUTER SHOPPER

Free with issue 233, July 07

Sharpen an image • Share files using BitTorrent • Speed up your system • Make the most of your USB flash drives • Build a CV online • Create a desktop toolbar • Correct colour tones • Create a screensaver • Use Excel on two monitors • Catalogue your DVDs • Understand resolution • Compare and merge documents • Set up a letterhead

Welcome to the very first digital magazine produced by *Computer Shopper*. This is the eighth volume of our hugely successful Ultimate How To… guide and, as you can see, it's a little different to the previous seven we've produced. It's still packed with practical, step-by-step advice to help you get more out of your computer, but it's in an entirely electronic format. This means you can keep it on your computer so you can refer to it at any time – and you can use the hyperlinks (marked in blue) to go straight to any web links.

The walkthroughs are divided into four sections: Windows, Office, Internet and Creative, so whatever your area of interest there's sure to be something here to interest you. We've also included a few Windows Vista tips to help you make the most of Microsoft's new operating system.

We'd love to know what you think of our first electronic booklet, and whether you'd like to see us produce more e-magazines in the future. Simply log on to the *Shopper* forum on our website at www.computershopper.co.uk or send an email to letters@computershopper.co.uk.

CONTENTS

Click on the name to go straight to that article

WINDOWS

WINDOWS

HOW TO...
Use Windows Briefcase

Make sure you're working on the right version of a file with Windows Briefcase

The deadline looms – a project is due, or a club newsletter needs to go to the printers. You're working on files at home, at work or on a notebook. Things can go drastically wrong, as files are left behind or the wrong version is taken from one PC to another. This is where Windows Briefcase helps.

The Briefcase feature checks specified folders and files between a computer and a Briefcase file. There are two ways to use it. You may have two computers that are often in proximity, such as a desktop PC and a notebook. The two computers need to be connected either through a network or directly via a cabled or wireless connection. Alternatively, you can use Briefcase to carry files from one PC to another using a USB flash drive, floppy disk or other removable media. We'll show you how it works in Windows XP.

1 Right-click on the desktop on your notebook and select New, Briefcase. The new empty Briefcase appears on the desktop. If you want to keep the Briefcase in any other location, create it there. If you're going to carry folders between two computers on a USB flash drive or similar, create the new Briefcase on the first computer and when you've copied files into it, move it to the flash drive.

Depending on how your notebook and desktop PC are linked, access the folders or files on the desktop PC and drag them to the Briefcase icon on your notebook. Any subfolders will also be copied. If you right-click and drag a folder, you'll see the additional 'Make a sync copy of type' option. This lets you specify file types that you want copied; for example, a folder might contain Word documents and image files, but you'll want just the Word documents copied.

2 Work on files in the Briefcase as you would normally. Later, you can connect the desktop PC and notebook again, or insert the USB flash drive. Open Briefcase and select Update All from the Briefcase menu. Alternatively, select specific folders or files within the Briefcase then choose Briefcase, Update Selection.

3 Files in both locations are compared and a list showing the differences between both is displayed. The icons down the middle show the actions the software intends to take when the comparison is complete. Right-click on any file to change the intended action or to take no action at all.

If you delete a file from the Briefcase, it will also delete the file on the PC with which you're synchronising. When you've finished checking the intended actions and making any alterations, click on Update to complete the update.
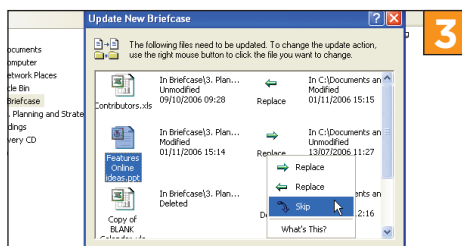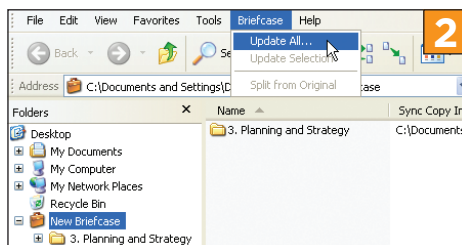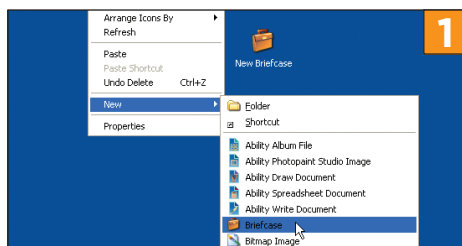
HOW TO...
Create a desktop toolbar

Are you struggling to make sense of your messy desktop? In this guide we explain how to keep all those handy shortcuts accessible but out of sight

Frequently used programs, as well as frequently accessed folders and files, are quicker to access from a shortcut on the Windows desktop. But after a while, the Windows desktop begins to look a mess. You could move these shortcuts to the taskbar; the quickest way is to drag the icon straight on to the Quick Launch area.

However, it doesn't take long to fill this up. Unless you increase your taskbar's height so that it has two rows of buttons, or even three, there's not much more you can do – or is there? Windows XP still has the custom toolbars feature of previous editions but, like so many other useful Windows tricks, this feature seems to have been forgotten over time.

1 Open Windows Explorer, right-click on a clear area in the right-hand pane and select New, Folder. Give the folder a name; we called ours My Toolbar. Move all the shortcuts, documents, applications and folders that you want on the custom toolbar into the folder. Shortcuts are easiest since you won't have to reorganise your hard disk, but you can mix real folders, files and shortcuts.

2 Right-click on a blank area of the taskbar. From the menu that appears, choose Toolbars, New Toolbar. Navigate to the folder you created in Step 1. When you've chosen your folder, Windows creates a new area on the taskbar with the same name as your folder. If you click on this, a pop-up menu lists the folder contents. You can open and launch any of these just by selecting them.

If this doesn't work, right-click the taskbar and untick Lock the Taskbar before trying again. You can pull the toolbar free of the taskbar and position it anywhere on the screen. Move the cursor over the toolbar. Click and hold the left mouse button down. The cursor changes into a four-headed arrow. Drag the cursor over the desktop and let go. It will appear as a floating toolbar.

3 Floating toolbars can get in the way. Instead, drag the toolbar to the edge of the screen. When the palette gets close to the screen edge, it will automatically stick to the side. There are just two more things that we need to do in order to make it behave the way that we want. First you need to right-click on the toolbar and select Always on top, so the toolbar isn't obscured by application windows. Then you need to select Auto-Hide, so that when it isn't being used the toolbar slides out of the way.
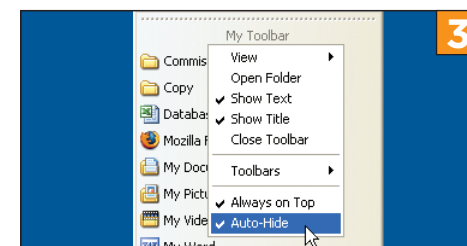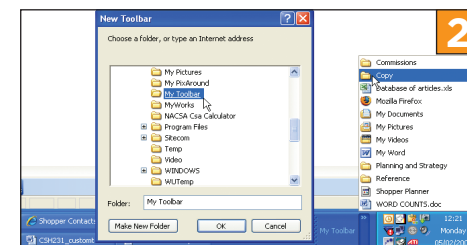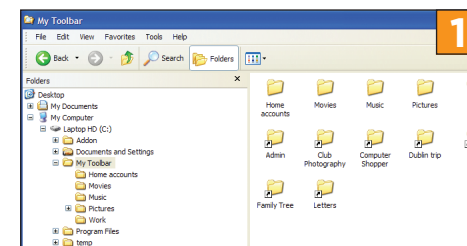
HOW TO…
Calibrate your monitor

Are the colours produced by your printer different to those you see on your screen? Here we explain how to use Adobe Gamma to adjust your set

Most monitors leave the factory with high brightness and contrast settings and a brilliant blue-white tone. However, this setup doesn't do a lot for accuracy when reproducing colours, so colours in a printout may not be the same hue as the colours you see onscreen.

To correct this, you need to calibrate your monitor and assign a new colour profile, which is used to correct the display's colours. If you have Photoshop Elements or another Adobe product installed on your PC, you can calibrate your monitor for free using the Adobe Gamma control panel.

1 In Windows XP, you'll find Adobe Gamma in the Control Panel or on the Start menu. Alternatively, look in C:/Program Files/Common Files/Adobe/Calibration, and double-click on the .cpl file. Start with the Wizard mode. In the first step, choose a new profile name. Then set the monitor contrast to maximum and reduce the brightness so the central dark-grey square in the window is just visible.

2 Ignore the next step prompting you to identify your monitor's phosphors. However, the gamma correction step is important. If the View Single Gamma Only box is ticked, you'll see a single square with a slider. Move the slider to make the brightness of the centre box the same as the striped surround. You'll find it helps if you squint. However, it's better to untick the box, so you can adjust the Red, Green and Blue gammas individually.

3 In the next step, you're asked to pick a hardware white point. You can choose a value from the drop-down menu. Alternatively, click the Measure button to judge the white point manually. You should train your eye to recognise the colour shifts. Keep your eye on the centre square and click repeatedly on the left-hand square. The centre square will get more and more blue until the left-hand square disappears. Click repeatedly on the right-hand
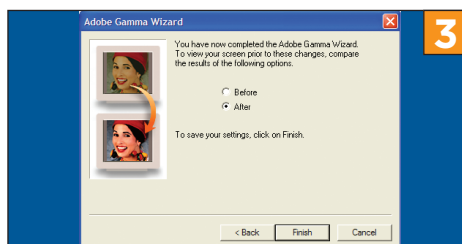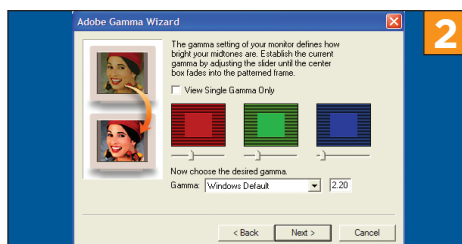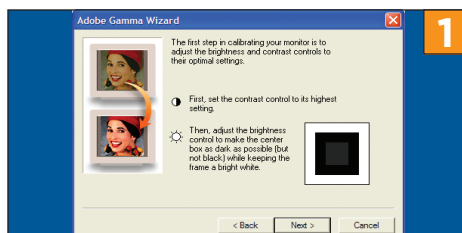
square until it disappears, and the centre square will get warmer. Once you've trained your eye using this method, use the left and right-hand squares to adjust the middle square until it is a neutral grey, neither too warm nor too blue. To set this as your white point, click the middle square. To cancel the whole procedure, press Esc on your keyboard.

Go straight to the final screen. This has Before and After buttons so you can see what difference the calibration process has made. Usually, you can expect to see the screen go a little darker and a lot less blue.
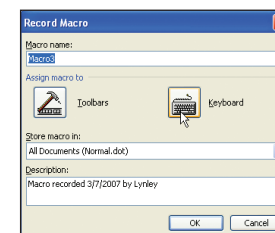

HOW TO…
Create a screensaver

Although there are a lot of creative screensavers available for download, nothing beats the personal touch. Why not use the pictures you have on your PC as a screensaver instead? Open the Display Properties dialog box by right-clicking on an empty space on your desktop and selecting Properties. Go to the Screen Saver tab. In the Screen saver drop-down menu, select My Pictures Slideshow. Click on the Settings button then on Browse to find the folder containing the images you'd like to use. There are other settings here you can change, such as the length of time for which each photo is shown. When you've finished, click OK. In the Display Properties dialog box, click on Preview to see how your screensaver looks.
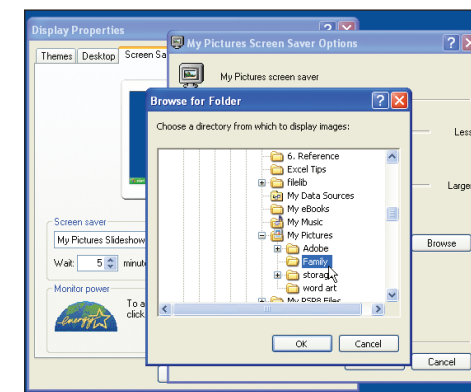
HOW TO…
Make a short cut

The function keys, labelled F1 to F12, are useful for doing certain tasks quickly. In any program press F1 to see the Help menu. Press F12 in most programs for the Save As dialog box. In web browsers pressing F5 refreshes the page. In Word, use the F2 key instead of cut and paste. Highlight the text, press F2, click where you want the text to appear and press Enter.

You can assign your own tasks to a Function key in Word. Go to Tools, Macro, Record New Macro. Click Keyboard and enter the Function key you want to assign. To change from a function that might be already assigned, click Assign. Perform the task and stop the recorder. Now when you press that function key in Word, it will perform that task.

HOW TO…
Take a screenshot

The Print Screen key (sometimes labelled PrtScn) on your keyboard, usually located above the Insert and Delete keys, is a handy way to take a picture of what's happening on your desktop. Pressing it won't initially seem like it's done anything, but a replica of your current screen has been placed in the Clipboard.

Run your favourite image-editing application, such as Windows Paint, and press Ctrl-V to paste the image. You'll notice that the whole desktop will be pasted, so you can either save the entire image or crop the section that you're interested in.

Alternatively, if you're only interested in one screen, you can take a picture of only that application. Select it with your mouse and press Alt-Print Screen. When you paste it into your image-editing program you'll only get a picture of the application you selected.

HOW TO...
Make the most of your USB flash drives

Microsoft's Flash Drive Manager can help you get more out of your portable storage devices – and, what's more, this useful utility is absolutely free

USB drives, also known as flash drives and thumb drives, are now as ubiquitous as floppy disks once were. They store hundreds of times as much data as the old 3½in floppy disks, and they are even easier to use.

Microsoft's Flash Drive Manager is a simple program that makes working with flash drives even easier. With the cost of drives falling all the time, many people have several of them, so some way of maintaining them and backing them up for security is very useful.

Microsoft's Flash Drive Manager is not supplied with Windows, but it can be downloaded free from the Microsoft website at http://tinyurl.com/3r44p. After installation, plug a flash drive into any available USB port before starting the walkthrough.

1 Flash Drive Manager is designed to handle all the kinds of jobs for which you're likely to want to use your flash drive, including copying files, backing up and restoring their contents, making a flash drive auto-run when plugged in and copying all the necessary files for setting up a wireless network.

Go to the Copy Files tab. Click on a drive name to select it and a list of folders and files will appear in the right-hand column. The file and folder list is live, so you can drag files from other folders to the Flash Drive Manager pane and vice versa. However, you can't copy files directly from one memory drive to another within the manager.

2 The Backup/Restore tab requires just three clicks to create a complete backup of a selected memory drive. First, select 'Back up my drives from a Flash Drive to my computer'. Then select the flash drive you want to back up, and finally click on the Backup button. If you want to overwrite an existing backup image, select its name from the right-hand

list. By default, backup images are saved in the My Documents\Microsoft USB Flash Drive Backup folder. This can be changed from the Settings tab, which we'll look at below.

3 Restoring an image to a flash drive is just as simple as backing up. Select 'Restore files from my computer to a Flash Drive', then choose the flash drive to which you want to restore the image. Select a backup image name from the list on the right-hand side of the dialog box. The image will then be copied across. To wipe the drive before the image is copied across, tick the box next to 'Clear Flash Drive before restoring'. Unfortunately, the program restores everything to your flash drive inside a single folder with the name of the backup image, rather than to separate folders as there were originally on the drive. If this isn't what you wanted, you'll have to use Windows Explorer to reorganise your folders.

4 Go to the Properties tab and click on the Edit button to add a label to the flash drive to identify it within Windows. That's not all you can do on the Properites tab. Ticking the 'AutoRun' box will make the flash drive run automatically when plugged into a USB port. The option to 'Include Runtime Components with the USB Drive Manager' adds 22MB of code, but enables the drive to autorun on Windows computers that don't otherwise have the necessary components to do that.

5 The Manage Library tab works with the drive backup images that have been saved on a hard disk. There are two buttons at the bottom of this tab: one to delete the selected backup image, and one to open an Explorer window on it. Each image is actually a folder on the hard disk, containing the files from the drive in uncompressed form and any autorun details
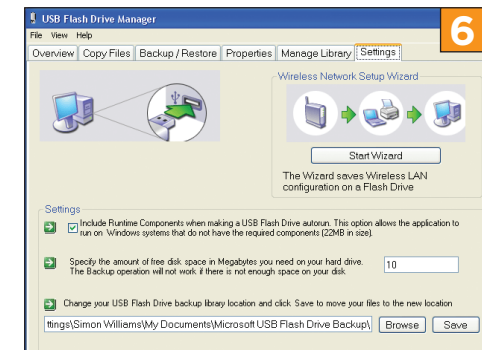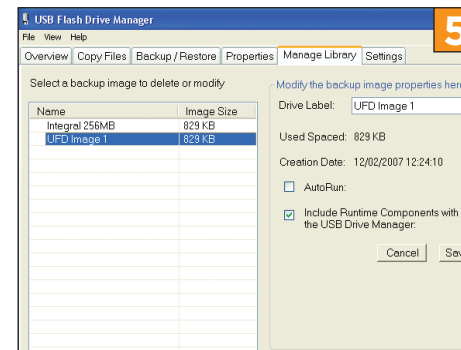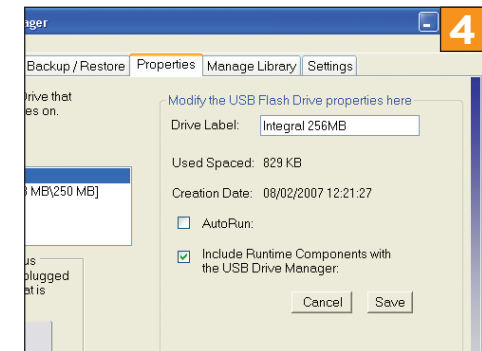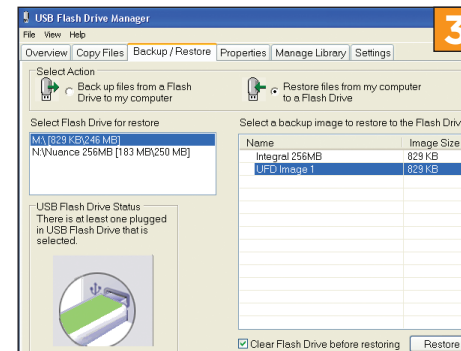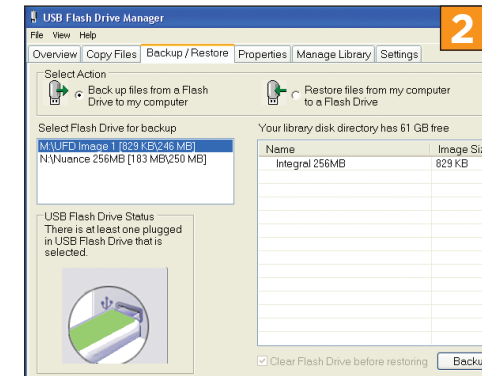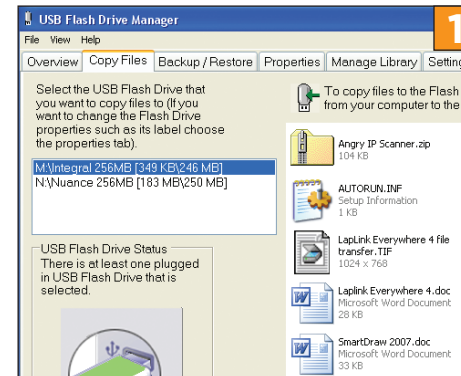
needed to run the drive image once it has been restored to a drive.

6 Finally, we're at the Settings tab. There are three settings at the bottom of this tab. The first includes the runtime components needed to make a flash drive autorun and is linked with the equivalent options on the Properties and Manage

Library tabs. This is the default setting. The second option enables you to enter a minimum amount of free disk space on your hard disk, so a backup from a flash drive doesn't fill it. Finally, you can enter a path to a folder where you want Flash Drive Manager to store flash drive images. Click on the Browse button to navigate to your desired folder and then on the Save button to save any setting changes you make.

HOW TO…
Share files using BitTorrent

Get faster downlaods by mastering BitTorrent file-sharing

No-one likes waiting for downloads. Yet even with broadband, downloading large files can often be frustratingly slow. Here we'll show you how you can get the fastest download speeds possible using the BitTorrent file-sharing technology.

A torrent is a small file that describes the file you want to share. Most BitTorrent clients can be downloaded free of charge and have a function for making torrent files. Anyone who wishes to download and share the file you are making available will first need to download a copy of the tiny torrent file.

Once you have created your torrent, you must upload it to a BitTorrent search website such as www.isohunt.com or www.thepiratebay.org.

The first step in making a file available for other people to download is to create a torrent file. This describes the location of the file you want to share, along with other information needed to download it.

Once you've created your torrent, simply upload it to a BitTorrent search site to make it available to others.

1 Open your BitTorrent program and pick Create Torrent under the File menu.

2 In the Create Torrent dialog, pick the file you wish to create a torrent for, give the torrent a name and write a short description.

3 Some BitTorrent programs allow you to choose the size of the pieces into which your file is split. For most people, the default setting is fine.

4 Make sure that you have associated a tracker with your torrent and then press Publish. A list of live BitTorrent trackers can be found at http://thebeehive.info.
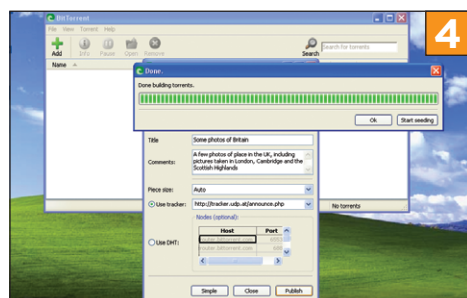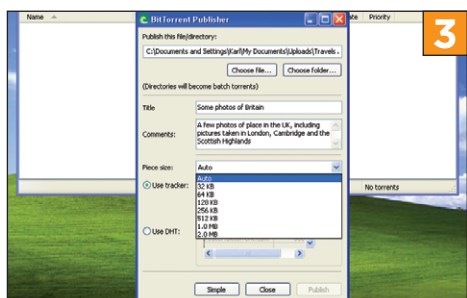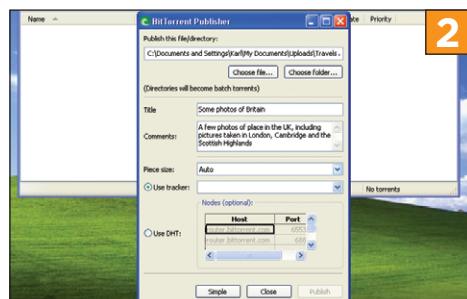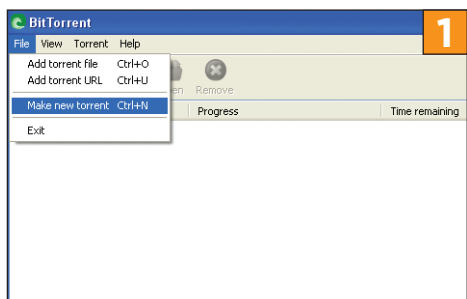
HOW TO…
Experience Aero and Flip 3D

Make the most of Vista's new interface with our guide to its new features

Microsoft has added some good, sensible features to Vista, but it has also given the interface a polish. Rather than using the processor to do all the work, Vista will offload some of the work on your graphics processor, provided your graphics card is up to the job.

To find out if your graphics card supports Windows Vista, download the Vista Upgrade Advisor from www.microsoft.com/windowsvista/upgradeadvisor. If your graphics card isn't powerful enough, don't worry. You'll still be able to run Vista, but you won't be able to experience all the new visual effects.

Vista comes with two display schemes: Vista Basic and Aero. The Vista Basic scheme is similar to the Royale theme that's included with the latest version of Windows XP Media Center Edition. Aero, on the other hand, uses what is termed Glass. All windows in Aero are semi-opaque so, for example, you can see a blurred image of the Recycle Bin on the desktop through the menu bar at the top of a window.

If you hover the mouse over a minimised window on the taskbar, rather than just showing its name, Aero displays a small thumbnail of the window. If you have a lot of windows open, this will help you quickly find the one you want. The thumbnails also show what is going on in the window. So if you're playing a video in Media Player, its thumbnail window will also show the video playing.

As in previous Windows versions, pressing the Alt and Tab keys lets you scroll through open windows. This switcher has been spruced up in Vista and it uses the same thumbnails as the ones used on the taskbar, making it easier to find the correct window by sight.

But why use Alt, Tab when you now have Flip 3D? This new function makes switching between windows much easier. Hold down the Windows key and press the Tab key, just as you would for Alt, Tab. All open Windows will now appear in a curving line, from the top left to the bottom right of the desktop, allowing you to scroll through open windows in a 3D format. It looks great and makes switching between open windows quite exciting.
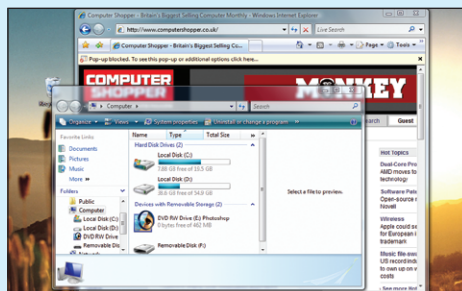
▲ Aero's Glass display allows you to look through menu bars to see what's beneath

▲ Alt Tab now shows thumbnails and even full-motion video

▲ Flip 3D throws your windows into 3D space to make it easy to find the one you're looking for

HOW TO…
Use Quick Launch

The Quick Launch bar to the right of the Start button is a great time-saver for accessing frequently used applications. But under Vista there's an even faster way to use it.

The first 10 applications can be launched by pressing the Windows key and the numbers 1-0 on the keyboard, so Windows-3 launches the third application, for example.

HOW TO…
Find the expanded options list

Right-click on a file in Windows Explorer and you'll be presented with a short list of common operations. You can bring up an expanded list of options by holding down the Shift key while right-clicking, which includes additional items such as 'Add to Quick Launch' or 'Pin to Start Menu'.

HOW TO…
Speed up your system

One of the downsides to all Windows Vista's flashy new features is that it's much more demanding on your hardware. If you find that Vista is running a little slowly, ReadyBoost is a new, painless upgrade that will help. Just plug in a USB flash drive and choose 'Speed up my system' from the AutoPlay menu. Vista will now use the flash drive as additional memory space, resulting in speedier operation.

ReadyBoost will improve performance only when there's little or no physical RAM free, and the PC would otherwise begin to use the hard disk swapfile heavily. However, ReadyBoost is currently no substitute for real RAM, and you'll need a ReadyBoost-compatible USB drive.

HOW TO...
Set up a letterhead

Headers and footers make letters look more polished. Here's how to set them up and use windowed envelopes so you don't need separate address labels

Headed stationery makes business and personal correspondence look more professional. All the main word-processing programs offer adjustable page margins, headers and footers, but may go about it in different ways. Our walkthrough shows you how it's done in Word and WordPerfect X3.

If you work for a company with its own headed paper, you're already halfway to creating professional-looking correspondence, and you can skip to Step 5. Once your headers are established, we'll show you how to position the recipient's address so your letter looks its best in a windowed envelope. Windowed envelopes are widely available in good stationery stores, and save you having to print and attach separate labels or, worse, write addresses by hand.

Finally, we'll show you how to add footers so the pages of longer letters are numbered.

1 We'll start with Word. WordPerfect users can skip to Step 3. In Word, page headers lie outside the page margins. We need to choose a top margin that positions the text of the letter underneath the window in the envelope. We've measured this at 5.5cm from the top. Go to File, Page Setup. On the Paper tab choose A4 from the Paper size menu. If you don't use this, Word may default to the US Letter size, which will mess up the measurements. On the Margins tab, set the Top margin to 5.5cm.

2 If you're not using headed stationery already, create a page header. From the View menu select Header and Footer. If you insert a great deal of text or a large graphic, there's a danger that the header content will start pushing down the main body of the text below it. In our example, though, the 5.5cm value we've chosen for the top margin gives plenty of room.

The last job here is to return to the Page Setup dialog box. Go to the Layout tab and set the Header's distance from the top of the page. Printers don't print right up to the edge, so we need to choose a good safe distance. A value of 1.5cm should be fine for most models. Word users can now skip to Step 5.

3 In WordPerfect, page headers are inserted within the main text margins. First, open the Page Setup dialog box. After setting the paper size to A4, set the top margin to the distance we want between the top of the sheet and the header. A value of 1.5cm is about right for most printers.

In WordPerfect, you have to rely on the height of the header we'll insert next in order to put the text the right distance from the top of the page for windowed envelopes.

4 To create a header in WordPerfect, go to Insert, Header/Footer. The options in the dialog box can be left at their defaults as we're creating Header A. This inserts a header area where we can enter the header contents. Because this header lies within the page margins, however, we need to juggle its height to push the text below to the right height for the windowed envelope. We can do this using the Header/Footer Distance button on the Header/Footer toolbar. This is where a little trial and error is needed. Print a test sheet, measure the distances and adjust the Header/Footer Distance value accordingly.

5 Once your page margins and headers are set up correctly in Word or WordPerfect, we can type in an address block below it. The number of lines that will fit within the envelope's window depends on the size of the window and the font being used. It's usually five or six lines.

In our example, we've typed these in as Name, Address Line 1, Address Line 2 and so on to remind us later that all six
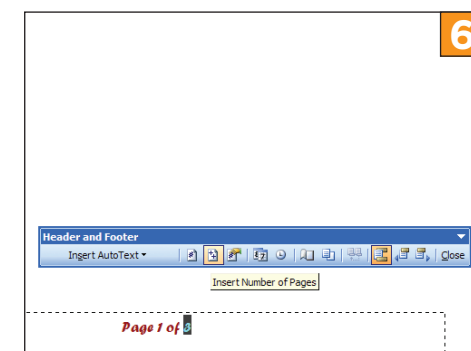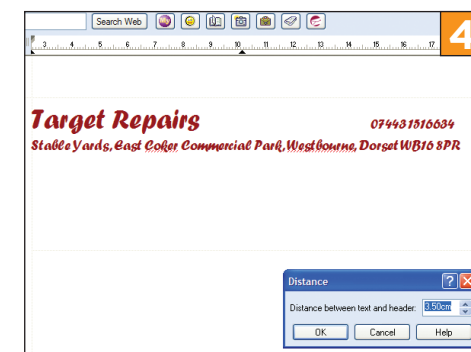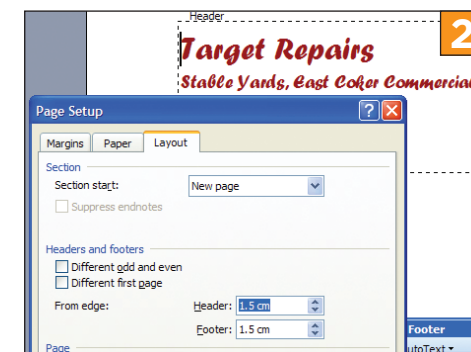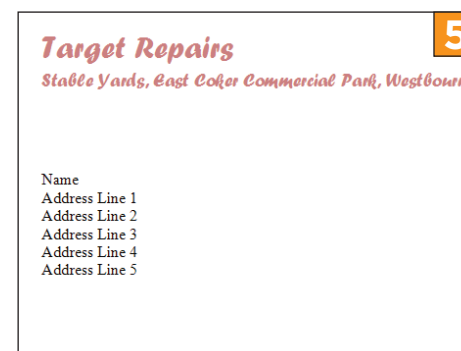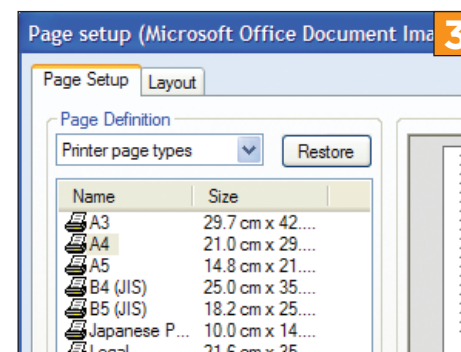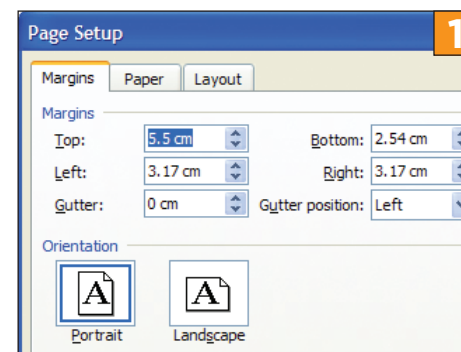
lines must be used in order to push the main text of the letter down beyond the bottom of the window. If you don't need all six address lines, type Returns instead to leave the remaining lines blank.

6 Finally, if your letters are likely to run over more than one page, you can use a Footer to display both the page numbers and the number of pages in total. For example, in Word, you use the View, Header

and Footer command again. This time scroll to the bottom of the page to edit the Footer area. Now type Page and leave a space. Then click on the Insert Page Number button on the Header and Footer toolbar. Leave another space, type 'of' and enter another space. Click on the Insert Number of Pages button.

In WordPerfect, the Header and Footer toolbar has a single drop-down menu for numbers; you need the Page Number and Total Pages options.

OFFICE　OFFICE

HOW TO...
# Manage large tables in Word

Put your tables in a manageable state so they are easier to read

The ability to create a table in Word is an immensely useful tool. By putting information in tablular format, you can make it easier to read and manage. However, once a table gets so large it is no longer contained on one page, it starts to take on a life of its own. Here we show you how to make your tables more manageable in Word 2003.

1 If your table has grown so long that it's over two or more pages, you can have the column headers appear automatically on subsequent pages. Select the row of headings in your table, and the first row of your table. From the Table menu, select Heading Rows Repeat. To see the changes made to your table, the document needs to be in Print Layout view. Select this option from the View menu. This works only for natural page breaks in your document. If you insert a manual page break Word won't repeat the column headings.
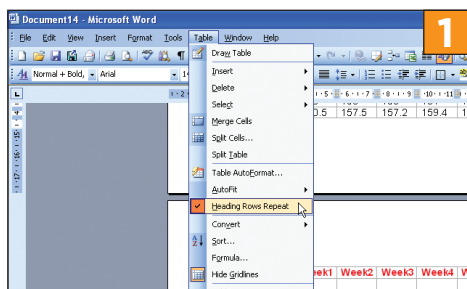
2 A workaround to this problem is to split the table. To do this, place the cursor in the table at the beginning of the row you would like to become the first row of your new table. Go to Table, Split Table. You can now create a page break between the two tables. Insert a new row in the second table, and copy the column headings from the first table into the blank row.
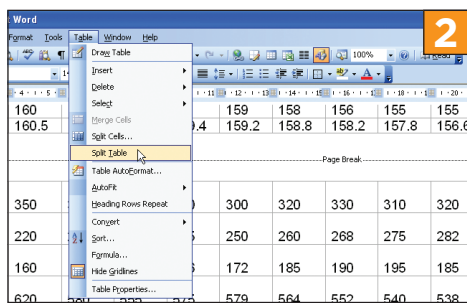
3 As well as splitting a large table across pages, Word may also split a row over two pages if it is particularly large. To stop this happening, highlight all the cells in the table. Go to the Insert menu and select Table Properties. On the Row tab, untick the box next to Allow row to break across pages. This applies the action to all the rows in the table. If you want to apply this to just one row, highlight only that row before opening the Table Properties dialog box.
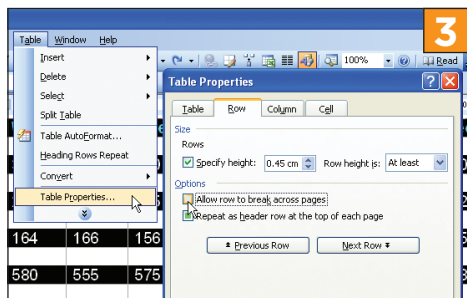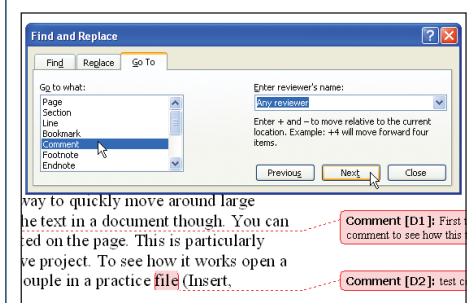
To make it easier to read a large table, you can use colour. Open the Styles and Formatting panel from the Format menu. Under Pick Formatting to Apply, find your table style; it might be the default Standard

Table. Click on the down-pointing arrow next to this, then on Select all 1 Instance (assuming there is only one table in your document). Click on the menu again and select Modify. In the Apply Formatting To box, select Odd row stripes. Click on the Shading Colour tool to choose a colour.

HOW TO...
Use Go To

The Go To command in Word is a convenient way to move around large documents quickly. You can use it to move to different pages, section breaks, bookmarks, footnotes and even comments. The latter is useful if you're working on a large collaborative project. To see how it works, open a document with comments inserted. Press Ctrl-G on your keyboard. This opens the Find and Replace dialog box with the Go To tab already selected. From the menu on the left, select Comment. On the right, select a reviewer from the drop-down list or, to go directly to a comment, say the tenth comment from the one you're on, enter +10.

HOW TO...
Find expanded options

The Group and Outline features in Excel's Data menu simplify how data in a spreadsheet is viewed. These features group together selected rows and columns, and indicate the grouping with a plus or minus sign to the left or above the top of the worksheet. To hide the grouped data, click the plus sign. To see those rows or columns again, click the minus sign. This is useful if, for example, you don't need to see all the data in a table but just the subtotals. The data is there, but you see only what you need at a glance. You can do this manually, but if you have subtotals in your table, go to Data, Group and Outline, Auto Outline.

HOW TO...
Enable Office-featured links

When you're looking for help in any Microsoft Office program, it's important to try as many sources as possible, so you should make sure Office is looking online and at the featured links. The latter provides the most up-to-date help and information Microsoft provides. Featured links are based on the most frequently asked questions received by Microsoft.

Open your Office program. Go to the Help menu and pick the Microsoft Office Help option (it has F1 next to it). Go to the bottom of the Help panel that appears, under See Also, and click on the

Online Content Settings link. Check there is a tick next to Show Microsoft Office online featured links.

HOW TO...
Compare and merge documents

Sharing documents is convenient, but it helps to see the changes made to a file by comparing it to a previous version – and it's easy to do in Word

Word documents are often passed around several people for proofreading, editing or other contributions. The document can end up being very different to its original incarnation. If you use Track Changes in Word, you can see at a glance what another contributor has done, but what if they switched it off? For these occasions, Word has a tool called Compare and Merge Documents. In Word 2002 and 2003, you'll find it in the Tools menu. This tool isn't as straightforward to use as it could be, though, so here we'll explain how to make it work for you. We've used Word 2003.

1 Pick a document to practise on. For example, copy an original file, and then a later, edited version of that file. If you don't have anything that fits the bill, take an existing document and save it under two different names. Make some changes to the second file and save them. In our case, we have an Original.doc file and a Later Version.doc. We want to merge the Original file with the Later Version document to create a single document containing all the information from both. We've got the Original document open. From the Tools menu, select Compare and Merge Documents.

2 In the dialog box that appears, click in the Look In box to find the file you want to merge into your current document. In the bottom right-hand corner of the dialog box is a Merge button. Click on the down-pointing arrow just to the right of the button. Select the appropriate action from the menu that appears. We've chosen Merge Into New Document. This way, the two files being merged are kept intact.

3 The new document opens in Print Layout view, with the Reviewing toolbar open and notations

down the right-hand side of the page indicating any formatting changes and deletions. If it doesn't open in Print Layout view, go to the View menu and select that option; otherwise, you won't be able to see the notations.

Insertions – text that has been added – will be shown in red with a red underline. This isn't ideal, though; there isn't any way to see which document the additions or deletions come from. However, if you're going to accept or reject alterations individually, it shouldn't be too much of a problem.

4 You may think that merging the file into the current document would get around this. We'd expect that selecting this option from the Merge menu in the Compare and Merge Documents dialog box would result in a document showing only the alterations made in the second file. However, the end result is exactly the same as if you merged the two into a new file. All changes from both documents are shown, with no way of telling from which document the addition or deletion came.

However, you could compare the documents, rather than merge them. To do this, you need to open the Compare and Merge Documents dialog box again, and this time tick the box next to Legal blackline. The Merge button now changes to read Compare.

5 The best way to see how the Compare tool works is to use it. If you named your test documents as we did, open your Original document. Then open the Compare and Merge Documents dialog box, making sure the box next to Legal blackline is ticked. Click Compare, and a new document is generated. You might expect to see the Later Versions document shown, with all the parts that differ from the Original document highlighted. In fact, it is the opposite.
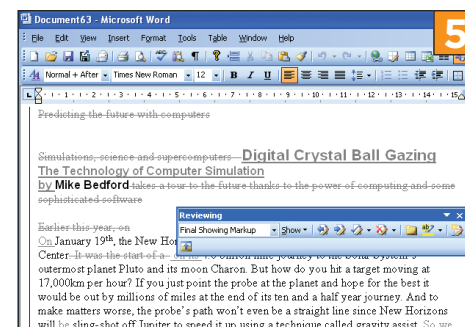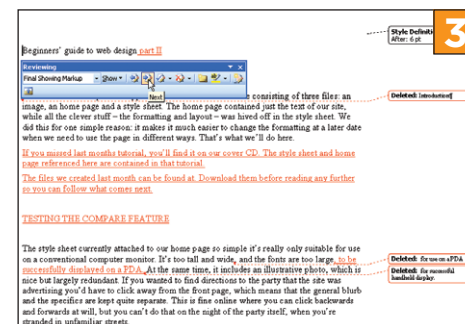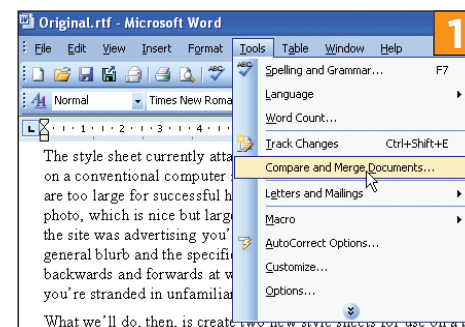
This is confusing, because it highlights an addition in the Later Version as a deletion in the comparison document. If you want to compare an updated document with the original, you need to open the updated document and then use the Compare and Merge Documents tool.

6 If you don't need to see the formatting changes made, untick the box next to Find Formatting in the Merge and Compare Documents dialog box. It's also a good idea to turn this off when you're merging comments and changes from several documents into
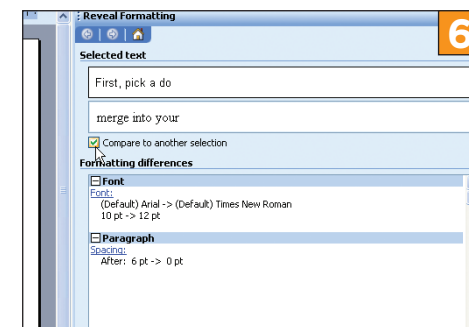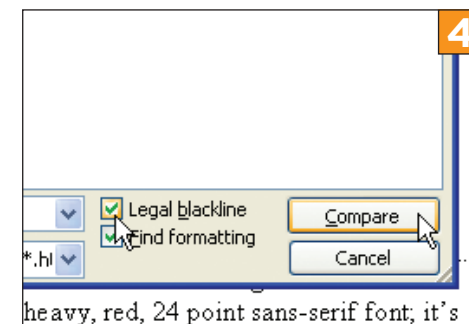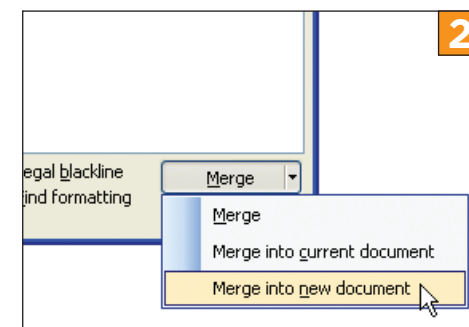
one document, as Word can store only one set of formatting changes at a time. It is also possible to compare the formatting of two different portions of text in a single document.

Highlight the first section. From the Format menu, select Reveal Formatting. An example of your formatting will appear under Selected Text in the Reveal Formatting panel. Tick the box next to Compare to another selection. Select another section of text to compare it to; any differences between the two will be displayed under Formatting differences.

HOW TO...
Use Excel on two monitors

Excel is set by default to open a new spreadsheet within the same window. This is great most of the time, and is the best way to work where formulae are used to share data between spreadsheets, or are copied from one sheet to another.

However, if you have two monitors and want to work on two spreadsheets at the same time, it's more convenient to have one sheet on one screen and the other displayed on the other screen.

The easiest way to do this is to hold down the Shift key, then click on Excel's program entry in the Start menu. This will start a second instance of the program. Open your spreadsheet in here, then
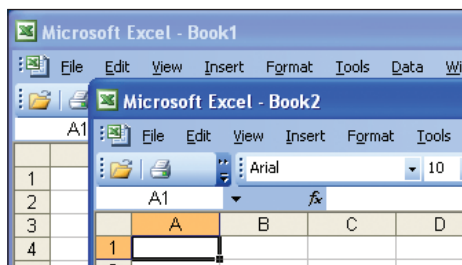
you can move it to the other monitor just as you would any program.

HOW TO...
Convert forms to text

Many people work with a number of different forms in Word, such as leave requests, bookings or feedback forms. Sometimes it can be easier to work with the answers provided on these forms if the form is converted into an ordinary text document.

There's a quick and easy way to do this. First make sure you unprotect the form by choosing that option from the Tools menu. Next select the whole document. Don't do this by running the cursor down the form and highlighting, even if it is a short form. Instead, choose Select All from the Edit menu or press Ctrl-A. Once the form is highlighted, press Ctrl-Shift-F9. This converts the form into a text document.
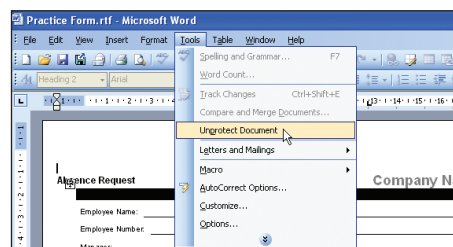
HOW TO...
View Excel spreadsheets

If you don't have a copy of Excel, or you want to send information in an Excel spreadsheet to someone who doesn't, help is at hand. Go to www.microsoft.com/downloads and get a copy of Excel Viewer 2003. This will let you open, view and print Excel workbooks, but you won't be able to edit them. However, the contents of the workbook can be copied and transferred to another document.

The latest version of Office has new file formats. If a document is saved in these formats, you won't be able to open them in an older version of Office. There's also a compatibility pack available that will allow you to open these files, and you'll need to install this after you've installed the Viewer.
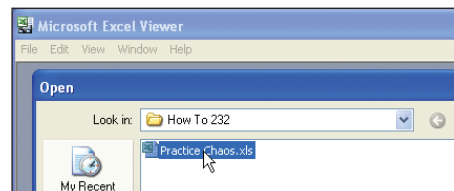
HOW TO...
Brainstorm in Word

Unlock your creative side with the help of Word's Outline mode

There's nothing worse than staring at a blank sheet of paper, your fingers hovering two inches above your keys as your brain spins around in hopeless circles. However, you're also in trouble if you find yourself bashing out 5,000 words only to realise you've gone off at a tangent because you didn't have a clear plan at the start.

Word's Outline mode can solve both these problems. In three simple steps, we can show you how to turn your raw ideas into a structured document that eventually almost writes itself.

1 Imagine you have to write an article about choosing a digital camera. You may not know where to start, but when you use outlining it doesn't matter. You can approach the subject from any angle and sort out the structure later. First open a new blank Word document. Switch to Outline view via the View menu and start typing in words and phrases as they come to mind. Enter these like bullet points with a word or phrase per line.

2 On the top toolbar there's a drop-down menu showing the 'Level' assigned to each line in your document. Because we've typed our text into a blank document in Outline view, it has all been entered at Level 1 in the outline. A section of text marked as Level 2 will appear as a subheading to the Level 1 text above it. In our example, we want to make Noise reduction a subsection of Noise. To do this, place the cursor anywhere within the text that's going to be changed into a subheading and select Level 2 from the drop-down menu.

3 You can change the hierarchy of a lot of headings by using keyboard shortcuts. Press Tab to demote a heading and Shift-Tab to promote it. You can drag headings and their sub-headings up and down the hierarchy. To do this, click the symbol to the left of the heading. Now drag the whole lot up or down. A horizontal arrow shows you where it will be inserted when you release the mouse button.
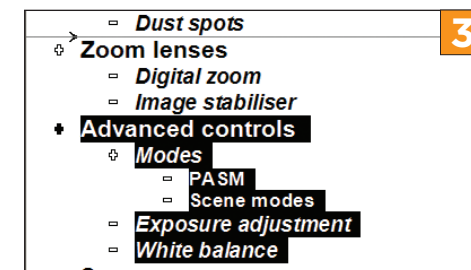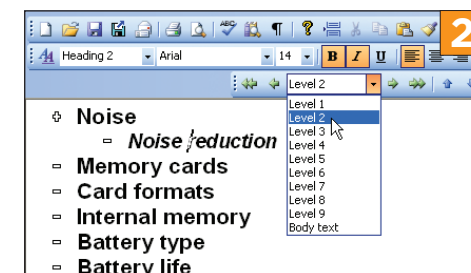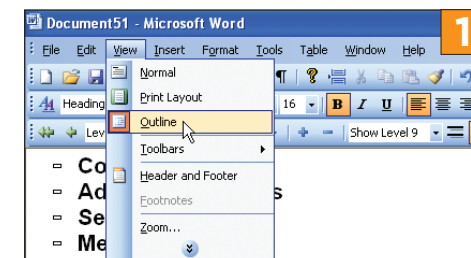
As you organise your document in this way, you'll notice that your outline fleshes itself out as you continue to work on it. At the end of the process, you'll have a set of headings that define the document's scope and structure and tell you exactly what you have to write and where it's supposed to go. To fill in the body copy itself, create a new blank line under a heading and select Body Text from the Levels drop-down menu.

HOW TO…
Catalogue your DVDs

A free online service can help you create definitive list of the DVDs you own

How many DVDs do you own? If you find it hard to keep track, DVDSpot can help. Its free service allows you to keep a catalogue of all the DVDs you've watched, or want to watch. It also contains a picture of the DVD's cover, a synopsis, runtime and other details including a cast list.

To get started, go to www.dvdspot.com and click on the Register link in the top left-hand corner. You'll need to sign up, then click on the link in an email sent to you to activate your account.

1 To add a DVD to your catalogue, enter its name in the DVD search box in the top right-hand corner. It is also possible to search using the title's UPC number (the universal product code found on North American barcodes). When you've entered your search you'll get a list of possible matches. If you click on a title in the list, you'll be able to see additional information about the DVD, as well as DVDSpot statistics such as the number of other members who own it, watched it or are planning to buy it one day.

To add the movie to your collection of owned DVDs, click the Go button in the My Collection section. If you want to add it to your wishlist or watched list, click on the menu next to 'Add this DVD to my'. These options to add the DVD to your catalogue are also available on the first search page.

2 Next, enter some details about your DVD. When you've finished, click Save. In the future you'll be able to make a note of when you've watched this DVD again, and keep track of it if you lend it to someone. If you want to make any changes to the information you entered for this title, click Edit. This screen also allows you to choose to keep the DVD entry private.

3 Click on the Front Page tab at the top of the screen, and then on the Manage Membership button. Here, you can make your entire collection private, as well as make alterations to your profile. You may already have a list of your DVDs on your
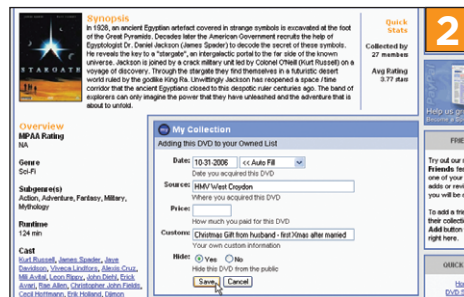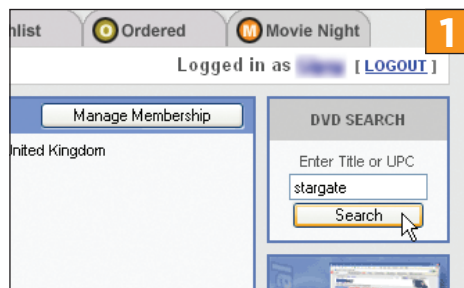
computer. If it is in a word-processor file, open it and select Save As from the Edit menu. Save it as a .TXT file. If it's a spreadsheet, save it as a .CSV file. Back at the DVDSpot My Spot page, click the Import from File button. Scroll to the bottom of the page, and click on Browse to find your file. Then click Start.

HOW TO…
Use Firefox keyword searches

Using keywords in Firefox improves the speed and efficiency of searches. Here we explain how to access information online in a smarter way

Firefox is known for its tabs, which have proved so useful even the latest version of Internet Explorer uses them. However, hidden away in Firefox is another useful feature that will undoubtedly find its way into other browsers. Keywords are an easy and convenient way to conduct searches straight from the location bar, and here we show you how they work.

1 Firefox has a few keywords set up. These may vary slightly, but most installations of Firefox 2 use google, wp, dict and stock. Type google into the location bar, then a space, and follow that with the search term. For example, entering 'google computer shopper' (without quotes) will open a Google page showing the results from that search. The first two or three results will be for this magazine's website. Follow the stock keyword with the stock symbol you want to search on.

2 You can set up your own keywords. To show how this works, we'll set a keyword up for IMDB, the movie database. Go to www.imdb.com. Right-click on the search box at the top of the screen. From the menu that appears, select Add a keyword for this search.

In the dialog box that appears, enter a name for your keyword; to make it easier to recognise the keyword in future, use the name of the website. Then enter a keyword. In our example, this is the letter i. In future, if we want to search the IMDB, say for a movie character, we just need to enter 'i darth vader' in the location bar rather than having to go to the website.

3 You may want to get rid of a keyword you created and possibly use a different keyword for that site. Go to the Bookmarks menu and select Manage Bookmarks. Make sure Bookmarks is highlighted in the left-hand pane. In the right-hand pane, scroll down to the bottom where you'll find the keywords created using the process. Click on
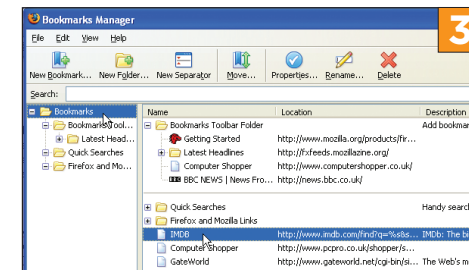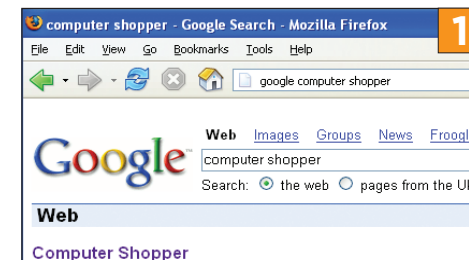
the one you want to remove and hit the Delete key on your keyboard.

It is possible to create keywords for any website you have bookmarked as well. To do this, open the Bookmarks Manager again. Right-click on the relevant link and select Properties. Enter something suitable as the keyword, for example you could use CS for the *Computer Shopper* website.

HOW TO...
Turn off HTML

Although messages that use HTML look more dynamic, there are good reasons for sticking with plain text when you're writing emails. Plain-text messages are smaller, so they're faster to send and receive; HTML messages are a convenient way for viruses and Trojans to travel, and your message may not look the same on the computer to which it is sent. In OE, go to Tools, Options, Send and select Plain Text under Mail Sending Format.

If you're using Thunderbird, go to Tools, Account Settings, Composition & Addressing. Untick the box next to Compose Messages in HTML format. In Hotmail, open a new blank message. Click on the Tools menu and again on Rich Text Editor ON to
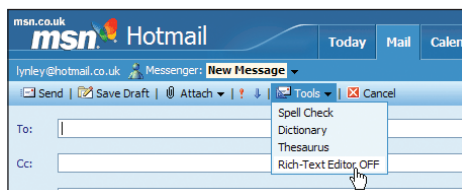
▲ Keeping your emails plain and simple makes them easier to read and safer to send

switch it off. All new messages will open with the Rich Text Editor switched off until you turn it on again. In Google Mail open a new blank message and click on the Plain Text link to achieve the same result.
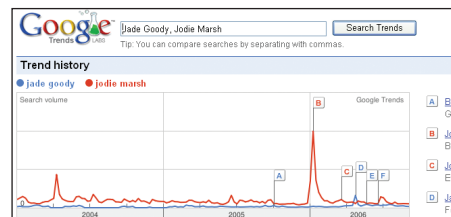
HOW TO...
Export contacts

If you've been using your free Hotmail account for a while, you will have built up a lot of contacts. It is possible to transfer these to the address books in other programs. In Hotmail, click on Contacts, Print View. Highlight everything, including the top line of Name, Email, Phone. Select Edit, Copy and open a blank spreadsheet. Select Edit, Paste. Check there are no empty rows, and all the email addresses are under E-mail and not Name. Save it, and in the Save As Type box select the option that contains CSV. You can import the file into the contacts of programs such as Outlook.
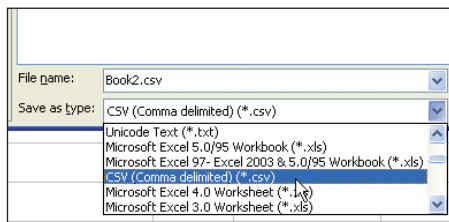
▲ Use all the contacts you've built up in Hotmail by copying them to your PIM address book

HOW TO...
Spot search trends

It's possible to see what people the world over are searching for with www.google.com/trends. The software isn't complete; as yet, it looks at only a portion of the searches undertaken on its main Google search engine. These are extrapolated to indicate trends and popularity the world over. Enter up to five terms, separating each with a comma, to see how many Google searches have been done on them. You could enter your name and the names of some friends to see who's most popular on Google. For example, pit Jade and Jodie against each other by entering Jade Goody, Jodie Marsh. Apparently Jodie wins hands down, except for a brief moment in April 2006 when Jade criticised Britney Spears.

HOW TO...
Create a to-do list online

When you've got several tasks to do, it's easy to get stressed. Online to-do lists can keep your blood pressure down and productivity up

The world is so frantic now that we're all doing about half a dozen things at once. Trying to keep on top of it all is a logistical nightmare. We have to-do lists scribbled on pads or the backs of envelopes, which are easily lost. The to-do lists in programs such as Outlook allow you to do a lot more, but you're not always at your computer.

There is a third option. You can keep your to-do list online using a service such as Ta-da Lists (www.tadalist.com). This way, you can access your to-do list from any computer with an internet connection. Tie it in with Ta-da List's sister site, Basecamp (http://basecamphq.com/demos/welcome) and you can keep any project, from a fundraising fête to a holiday, organised and running smoothly.

1 First you need to register. Click on the big Sign up for Free link and complete the registration form. It doesn't take very long. Once you're logged in, click on the Create a new list link. Give the list a name and press the Create this list button.

2 Next, add items to the list. Enter an item in the box and click Add this item. When you've done that, click on Close to hide this box. To access it again, if you want to add an item at a later date, click on the Add another item link.

When you've completed an item on your list, tick the box next to it. The item disappears from the main to-do list at the top of the page and re-appears in smaller letters underneath. Should you decide later that you haven't completed that item, you can return it to the main to-do list by removing the tick from its box.

3 A title on its own won't give much information about your to-do list, especially if you have half a dozen of them. Click Edit and enter more detail about the purpose of the task to which the list is related in the Description/Notes box. Click Save this list. If you've finished with a list and want to remove
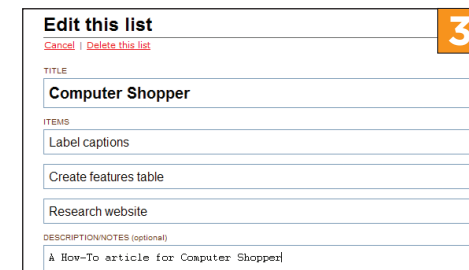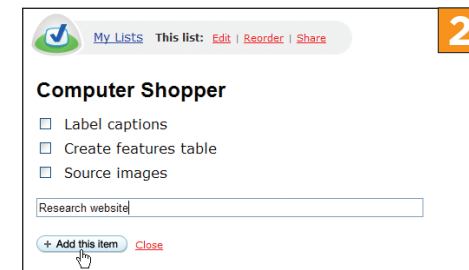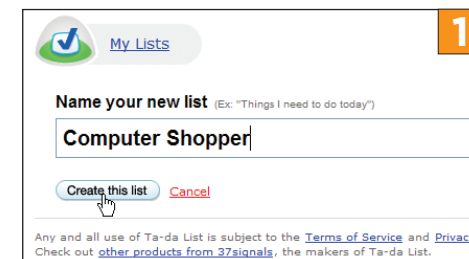
it, open this page and click Delete this list. To start a new list, click on My Lists to return to the main to-do list page.

You may have noticed that there are lists that can be viewed by anyone on the main page of this website. If you'd like yours to be publicly viewable, go back to the to-do list page, click Share, scroll down the page and select that option.

HOW TO...
Send large attachments

Large, bulky attachments may exceed the recipient's mailbox allowance. It's easier to upload large files to the internet and send a link to the recipient. Mail Big File (www.mailbigfile.com) will do this for you. Alternatively, you can use file transfer protocol (FTP). Your ISP may give you an FTP client for uploading your webpages. Otherwise, use Internet

Explorer or download a free FTP client from the internet or the toolkit on our cover DVD. Upload the file to your website, then email the link to the recipient. Details such as the address for the FTP server can be supplied by your ISP.
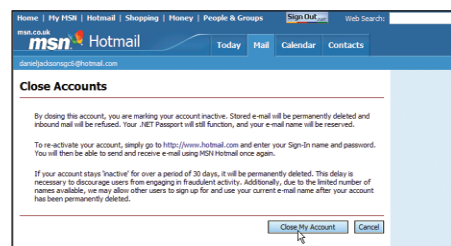
HOW TO...
Manage your email

Keeping email manageable means keeping the inbox tidy. In OE, go to Tools, Options, Maintenance, Clean Up Now. To get rid of old messages, click Find on the toolbar and enter a date in the Received Before box. Backing up OE isn't easy, but there is a software add-on that simplifies the process. Download OEQuick Backup 1.3 from www.softwarepatch.com.

In Thunderbird, use your profile folder to copy messages, contacts and other settings such as filters. Exit Thunderbird. In Windows XP, click Start, Run. Enter %AppData% and press OK. This takes you straight to the Application Data folder, rather than having to go through Documents and Settings to find it. Double-click on Thunderbird, then Profiles. You'll find your profile folder in there. Highlight it, select Copy from the Edit menu and paste to any location. To restore the backup, make sure Thunderbird is closed. Click Start, Run, enter %AppData% and double-click on the Thunderbird folder. Open the Profiles.Ini folder in Notepad (Start, Programs, Accessories). Change the Path= line to the new location. Change IsRelative=1 to IsRelative=0.
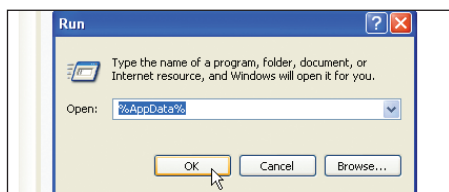
HOW TO...
Close and re-open Hotmail accounts

If you don't use your free Hotmail account for 90 days, Microsoft will delete it and all the emails it contains. Your username will also be up for grabs. If you want to keep this, it is important to remember to use the account now and again, and sign in at least once every 10 days. However, it can also be handy to shut down your account now and again, as all messages sent to the account will be bounced back to the sender, hopefully removing you from a number of email spam lists as an inactive account. It is possible to do this, and keep your username reserved, provided you reactivate the account within 30 days. Make sure you save any emails you want to keep as this will also delete all messages in the account. Log into your email account, then go to www.hotmail.msn.com/cgi-bin/accountclose and click on Close my account. To reactivate the account, you just need to sign in again.

HOW TO...
Build a CV online

Our step-by-step guide explains how to create the perfect curriculum vitae so you're always prepared

Templates for CVs are available in Microsoft Word, but what if you have a different word processor or you want something that looks a little different? You could try building one yourself from scratch, but that could take a considerable amount of time and effort.

Fortunately, however, there is another option. The government agency Learn Direct has an online CV builder at http://83.138.168.192 that anyone can use. Best of all, you can store a copy online. This way, no matter what happens to your computer you'll always have a backup available.

1 Click on the Build my CV link on the opening page of the website. In the next screen, click on the 'CV builder tool' link. Then click on Log in to secure site.

We don't have a username yet, so click Register here. Fill in the form, and when you've finished, click on the CV Builder Tool link on the left-hand side of the page. Press the Start button.

2 Fill in your details as requested. For helpful advice, click on a question in the panel and the answer will appear below it. You can move back and forwards along the 12 steps in the CV builder by clicking on one of the numbered links at the bottom of the page. If you're logged in you won't lose any of your information.

The site also has a spellchecker and the button for this is on the bottom left of most pages.

3 When you get to the last screen in the CV builder, click View my CV. You can then save the finished article to your hard disk.

The document is plain and simply laid out. If you want to add a bit of pizzazz to your CV, click the Templates link on the left-hand side of the page. Choose one you like and download it to your computer. You can then transfer your details to the new layout.
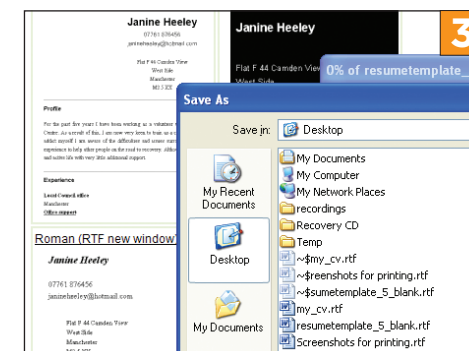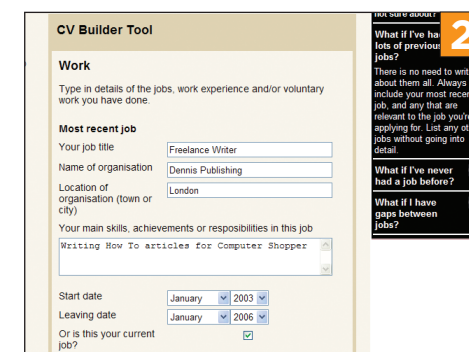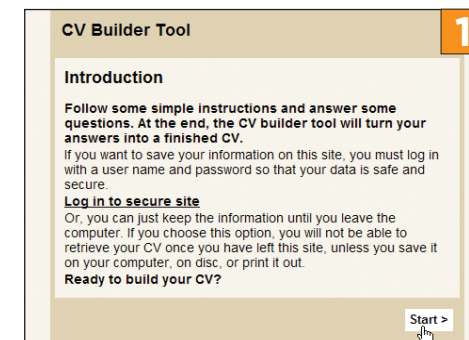
HOW TO…
Download mail to one inbox

Most of us have more than one email address; at the very least, you'll have a free webmail address and an email account from your internet service provider. You can download all messages from your accounts to your computer, as long as they support POP. Google Mail makes this easy to set up. Click on Settings, Forwarding and POP. Select the option to Enable POP and click on the Configuration instructions link. From here, you can obtain step-by-step instructions for setting this up with any email client.

Your messages can be downloaded from paid-for Hotmail accounts into Outlook Explorer. Go to Tools, Accounts, Add, Mail in order to start the Internet Connection wizard. If your Hotmail account

▲ Google Mail makes it particularly easy to download messages to your PC

is a free one, you'll need to use an add-on program such as FreePOPS (www.freepops.org/en).

HOW TO…
Bookmark email addresses

Try this time-saving trick if there are email addresses to which you send messages frequently. Create a bookmark or favourites link to any Hotmail page. Click Add and give it a name such as 'Send Mail to Joe Bloggs'. Then right-click on its link in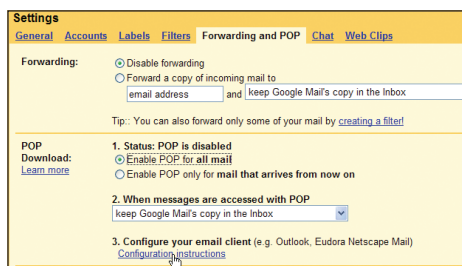 the Favourites pane or Bookmarks list if you're using Firefox, and select Properties. Change the website address to http://hotmail.msn.com/cgi-bin/compose?mailto=1&to=[Email Address], where [Email Address] is the address of the person to whom you'll send emails, such as http://hotmail.msn. com/cgi-bin/compose?mailto=1&to=joe@bloggs.com. Provided you're logged into Hotmail, clicking on this link opens a blank message composition page with this email address already entered for you.
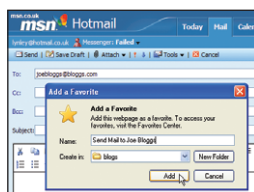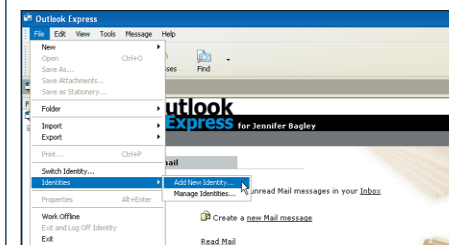
HOW TO…
Forward mail

Forward mail from your Google Mail account to multiple accounts automatically. Click on Settings in the top right-hand corner, then on Forwarding and POP. Select Forward a copy of incoming email to. In the first box, enter the name of the account to which you want mail sent. The second box decides what happens to the message in Google Mail. For example, Archive Google Mail's Copy will mark it as read and move it into the archive. Click 'Create a filter' to selectively move email messages to more than one account.
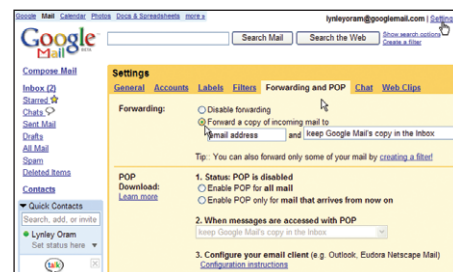
HOW TO…
Create individual accounts on a PC

If there's only one computer in your house and everyone uses it, you can keep emails separate and private by setting up individual email identities. There are two processes for this: one for you, one for the other users. You'll also need some technical details, but if you don't still have these from when you first set up your email account, your ISP can provide them. Select File, Identities, Add New Identity. Type a name and tick the Require a Password box. For you, select File, Identities, Manage Identities. Click Main Identity and then Properties. To change users, go to File, Switch Identity.

HOW TO…
Change your name

Have a bit of fun and change the name that appears in the From line of emails that you send. Log into your Hotmail account and click Options in the top right-hand corner. Then select Personal from the menu on the left and click My Profile. Change the First Name and Last Name boxes and click Save.

HOW TO…
Use mail rules

Mail rules allow you to move incoming messages straight to a folder, to the bin or to another email address, reply automatically, and more. In OE, go to Tools, Message Rules, Mail. In the dialog box that appears, select the condition and action for your rule. For example, select the 'Where the from line contains people' option. In the third box, labelled Rule Description, click 'contains people'. In the next box enter the email addresses of the people to whom the rule will apply. Continue through the second box to finish the rule. In Outlook 2003, go to Tools, Rules and Alerts, New Rule button. With Outlook 2000, select Tools, Rules Wizard, New. In

Google Mail, click Create a Filter and follow the instructions. For Hotmail, click Options, Mail, Custom Replies, New Filter. In Thunderbird, select Tools, Message filters, New. You can add a number of criteria and actions to a filter just by pressing the + button.

HOW TO...
Take a great digital photo

Microsoft's Flash Drive Manager can help you get more out of your portable storage devices. We show you how to use this useful free utility

Modern cameras help you get a usable picture every time, but you can create better shots with a bit of extra know-how.

The job of a camera is to focus light on to film or, with a digital camera, a light-sensing chip. Light enters the lens (actually an array of lenses) and travels through a hole, the aperture, which can be widened or narrowed. The light strikes the film only when the shutter is opened briefly. This is triggered when you press the shutter-release button to take a picture. The length of time it stays open – the shutter speed – governs the total amount of light collected, the exposure. The recorded image starts off being black and gets progressively lighter while exposed. How fast it lightens depends on the sensitivity or speed of the film, rated from around ISO 150 (slow) to ISO 1,600 and beyond (fast). The sensitivity of a light sensor can be adjusted, but faster generally means a grainier image.

Your camera adjusts focus, aperture, exposure and sensitivity automatically to get a decent picture. However, you can intervene to make it look the way you want. Let's start with the obvious. Focusing means adjusting th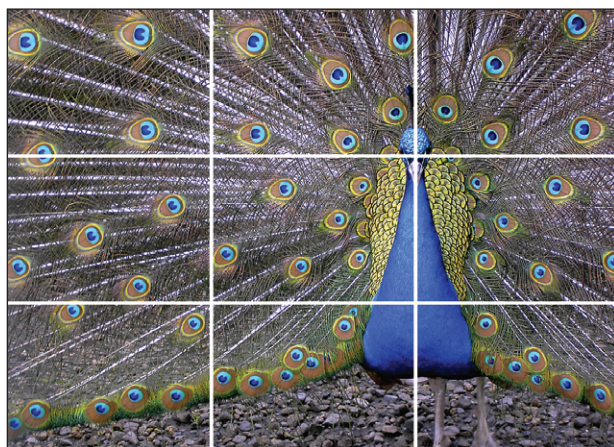e lens according to how far away something is. But which something? Autofocus usually goes for whatever is in the middle of the frame. If your subject isn't, it may be out of focus while the background is sharp. To prevent this, first point the camera straight at the subject. Press the shutter button halfway; you should feel this, and a light may come on. Focus is now locked. Holding the button, move the camera to frame the shot as you want (without changing distance), then press the button fully to take the picture. Even centred subjects can be let down by multipoint autofocus, which looks at the whole scene. Check the instructions for a single-point option.

A half-press usually locks exposure, too. If a landscape comes out dark because the camera is exposing for the bright sky, point at a dark area first. If the sky comes out white, point at a brighter area next time to reduce exposure.

Most digital cameras have a time lag between pressing the button and the picture being taken. To reduce this, preset the focus by half-pressing or by selecting a fixed focus option: one metre, three metres or infinity (landscape). Normally, a camera won't focus correctly at much less than a metre. For close-ups, use the Macro mode, which is usually indicated by a picture of a flower. This should focus down to a few centimetres. Wide angle (no zoom) will get closest.

FIELD TRIP
When shooting an object or person, you want it to stand out in focus while

▲ The 'rule of thirds' is a useful trick to help compose shots. Imagine the frame is divided into a 3x3 grid. Frame your shot so one or more key elements lie not in the squares themselves, but at corners of the central square, where the gridlines cross, giving you four points

▲ The job of commercial photographers is often to make the mundane look exciting. Look for angles that make lines and planes divide the frame and lead the eye across or into the scene

▲ It can be hard to get depth of field effects with a consumer camera. Try blurring the foreground rather than the background, shooting through or past very close objects

everything behind it is blurred. This is known as a small depth of field. Compact cameras give a large depth of field by default, which is good for big scenes but gives a characteristically amateurish look to portrait and detail shots. To reduce it, use a larger aperture, setting a faster shutter speed to keep the exposure correct. Your camera will do this automatically if you select Portrait mode.

Most cameras have several of these program or scene modes for different purposes. The Sports setting ensures the fastest shutter speed, freezing action. Aperture priority (Av or A) and shutter priority (Tv or S) modes let you fix one setting manually – for example, to control depth of field when you're using a tripod and don't have to worry about camera shake. The camera will balance out the other setting to correct the exposure.

Finally, always think about framing your shot. For a portrait, fill the frame with your subject, not by going too close – the wide angle will give an unflattering fishbowl effect – but by using zoom. For a scene or still life, think about the two-dimensional composition. The 'rule of thirds' is handy here (see the screen opposite). Include elements at different

distances to give the picture depth. If you're shooting straight, make it truly straight; check the horizon or the verticals of buildings. Alternatively, try wild angles for high-impact shots. Instead of shooting from eye level, hold the camera at waist height, above your head, or on the floor for a worm's eye view.

▲ Wide angle plus close-up flash equals portrait disaster. Instead use natural light, a wide aperture for shallow depth of field, and zoom for more flattering geometry. Shoot from slightly above the face

HOW TO...
Sharpen an image

Small improvements to your digital photographs can make a huge difference to their quality. Your image editor's Unsharp Mask tool can help

Sharpening is an obvious solution if a photograph is slightly soft (out of focus). More importantly, there are technical reasons to apply sharpening. First, printing an image, especially on a commercial press, makes it fuzzier. Second, the smaller you display or print an image, the less sharp it looks. Sharpening can compensate for these effects.

Sharpening works by increasing the contrast between neighbouring pixels, making edges more distinct. Ignore the basic Sharpen command in your image editor and use the professional version, Unsharp Mask. This sharpens only where there's already a certain level of contrast, crisping up edges without exaggerating unwanted detail such as dust and skin pores. This level is set by the Threshold control. You can also increase the radius of the mask to handle images that are very soft or have been scaled up.

In the Unsharp Mask dialog box, try Radius 1 pixel, Amount 100%, Threshold 4. Zoom the preview to 100% size to judge the results by eye. If there's no visible improvement, increase the Radius. Try 1.5, 2 or maybe 3; you'll rarely need more. If edges are over-sharpened, giving a halo effect, drop the Amount to 70% and if necessary reduce the Radius. If edges look good but other areas become speckled, increase the Threshold.
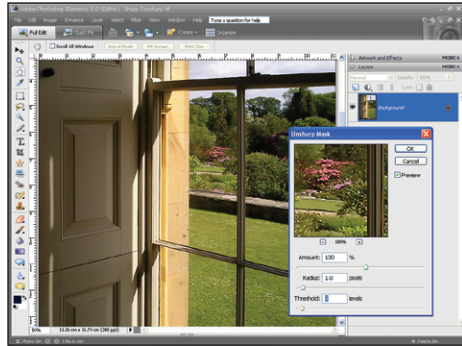
▲ The Unsharp Mask filter isn't exactly intuitive, but it gives you the controls you need to get the best result from sharpening with each image

Combine sharpening with any down-sampling operation. Before reducing the pixel dimensions of a large photograph, sharpen it using Unsharp Mask. If it's for printing, use slightly more aggressive settings. When you use Resize, see if the new dimensions for your required physical size are less than half the original. If so, resample to an intermediate size first, say 70%, sharpen again, then resample to the final size. A big reduction might take several steps. This ensures the final small image still looks sharp.

▲ Unsharp Mask can bring out the detail in a slightly soft photo (left) and help ensure it looks crisp when it's printed (centre). Don't overdo the sharpening, though, because you'll end up spoiling the image (right)

HOW TO...
Correct colour tones

Using an image editor to adjust your digital photographs is a useful skill. Here we give you some tips on making your snaps picture perfect

An image-editing program offers tone and colour adjustments ranging from one-click automatic corrections to more complex tools. Professionals use all kinds of know-how to give images maximum polish and impact. Here are some basics you can use again and again.

One common problem is incorrect white balance. Your camera automatically compensates for white balance, but not always correctly. To help spot problems, look at a well-balanced picture and then at your photo. Look for all the colours of the rainbow; are the reds red, the yellows yellow, the blues blue?

If the colour doesn't seem right, there are various ways to correct the problem. Some programs offer a colour temperature slider; adjust this, and see if it helps. Alternatively, use grey point correction. In Photoshop Elements, for example, press Ctrl-L to open the Levels dialog box. Click on the grey eyedropper on the right. Click on something in the photo that should be grey – that is, neutral in colour. The whole image will update to make it so. Try different spots until the result looks right.

Sometimes an image is well balanced but looks flat. There are two standard techniques for an instant boost. The first uses Levels. Open the Levels dialog box and drag the black and white sliders inwards from the end of the scale. This increases contrast more effectively than the Contrast command, a crude tool that's best avoided. If the image gets too light or dark overall, drag the grey slider (also known as 'gamma') left or right to correct this.

The second technique uses the Curves control, missing from Photoshop Elements but available in other image editors such as Corel Paint Shop Pro. Open this (in Paint Shop, it's under Brightness and Contrast on the Adjust menu), and you'll see a diagonal line representing the graduation from dark to light values within the image. Click on this to add a point, which you can then drag to curve the line. Add two points and bend the curve into an S shape. This makes shadows deeper and highlights brighter.
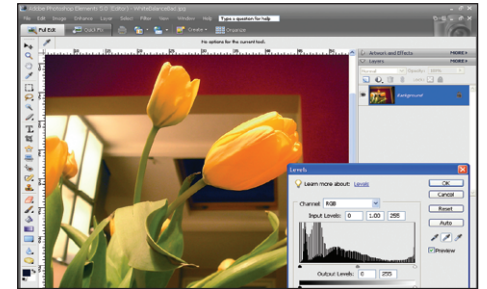
▲ Use grey point correction to fix images with unsatisfactory white balance
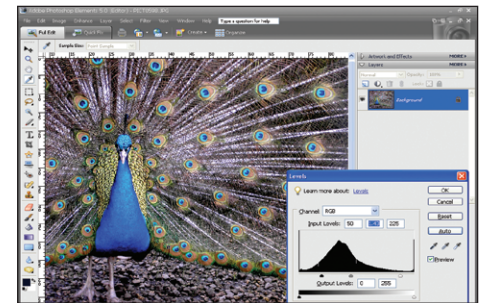
▲ To boost contrast, don't use the Contrast command; levels works better
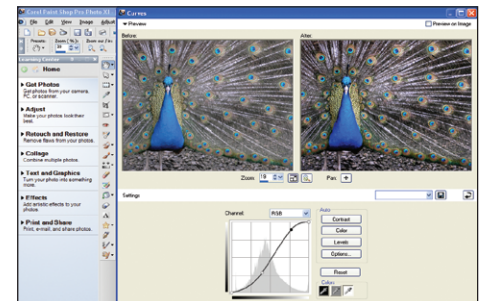
▲ You can apply an S-curve to add impact to a dull-looking photo

HOW TO...
Combine photos

You can join photos seamlessly in Photoshop Elements using just layers, the selection tools and the Eraser tool. Here's how to mix and match

Photoshop Elements is an excellent program, not just for enhancing your photos but also for combining them into seamless photo montages. If you want to superimpose shots of your friends against a tropical sunset or add the head of a chimpanzee to the body of your mother-in-law, all you need is some patience and skill and the correct software program.

Here we've used Photoshop Elements 5 (www.adobe.com/uk/products). However, these techniques also work with previous versions of Elements. In our example, we're superimposing a sports car in a car park on to a more attractive woodland scene.

1 To combine two photos, you need to open them both in Elements. They will appear as thumbnail images in the Photo Bin running across the bottom of the screen. Select the image you want to use as the background by clicking its thumbnail. It should now appear in the main window. In our example, this is the photo of the tree.

Click on the image you want to superimpose on it from the Photo Bin – in our example, this is the car – and drag the photo on to the main window. It's added as a new layer, which covers up the background image.

2 The Layers palette in the Palette Bin to the right of the screen shows that the image consists of two separate layers: the original Background layer and the photo of a car that we dragged on to it. If you can't see the Layers palette, go to Windows, Layers to display it. Each layer is shown as a thumbnail image in the Layers palette. You need to click on a layer to select it before you can start editing it.

3 Next, choose the best selection tool for deleting the unwanted

background. There are three Lasso tools in Elements, and they share the same button in the Toolbox on the left-hand side of the screen.

The standard Lasso tool isn't much use here because it's impossible to follow a precise outline closely enough without mistakes and wobbles. The second option, the Magnetic Lasso, can follow outlines automatically, but it relies on clear tonal differences between the object and its background. Without that, it becomes difficult, darting off unexpectedly in different directions. The Polygonal Lasso tool enables you to build up selections with small straight-line sections. Each time you click the mouse button, another section is added. This is ideal for the outline of the car.

Using this tool, we've traced around the rear wheel arch and part of the car's roof, then cut across the background and back to the starting point to close up the selection. Pressing the Delete key removes that section of the top layer, showing the background layer below.

4 We've gone round the rest of the car's outline, selecting small sections and deleting them. This is better than attempting to select the whole outline in one go because mistakes are too easy to make and – if you've spent several minutes following the outline precisely – very frustrating to put right. There's still work to be done, though. Areas of background need to be deleted and the background itself looks a little low in relation to the position of the car.

5 Get rid of the unwanted background areas above the car and to the sides by using the Eraser tool, which can be found in the Toolbox on the left of the screen. When the Eraser tool is selected, the Options bar shows a series of brush options including a Size pop-up. Choosing a larger size enables you to delete larger areas more
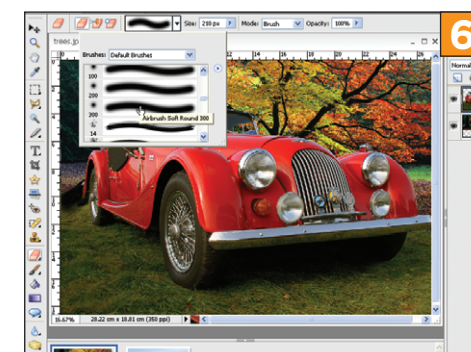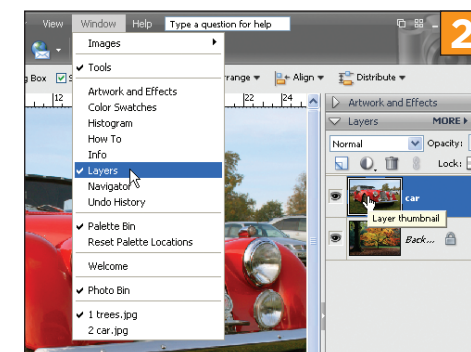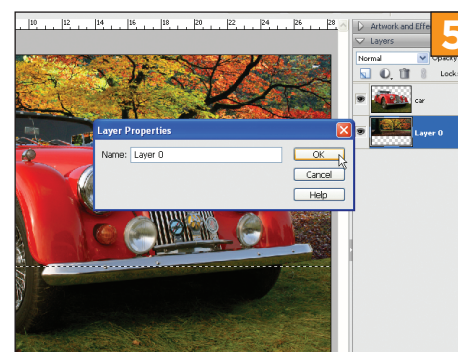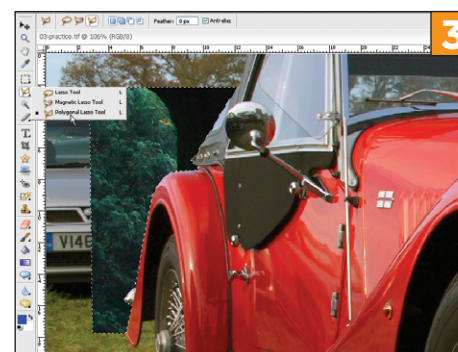
quickly. The next part – moving the background up a little – requires an extra step. Background layers (the base layer in a composite image such as this one) can't be moved. You need to double-click the layer's thumbnail in the Layers palette to promote it to a full layer. You'll be prompted to choose a name, but you can leave it set to Layer 0 to save time. The layer can be dragged up slightly using the Move tool in the Toolbox.

6 At the moment, there's a sharp join between the grass in the car layer and the autumn leaves in the image below. It's not possible to cut around each blade of grass, but there is another solution to the problem. By going back to the Eraser tool and choosing a large, soft brush size from the Options bar (Airbrush Soft Round 300), we can smoothly blend the two layers so that they appear to merge into each other naturally.

HOW TO…
Understand resolution

Resolution is a term often used in computing but it's easy to get it wrong if you're not sure what it refers to. We take you through the basics

Resolution is a simple concept that somehow gets everyone confused. That's partly because the term is used loosely. Any bitmap image consists of a grid of dots, or pixels. A 5-megapixel digital photograph might contain 2,560x1,920 pixels, so you can say that it has a resolution of 2,560x1,920. Ask an expert what resolution you need to print a good-quality photograph, however, and they'll tell you 300 dots per inch, or 300dpi. How do those figures fit together?

The number of pixels in an image is more properly termed its pixel dimensions. Pixel dimensions are connected to resolution (dpi) by a third factor: physical size. Let's say you print your 2,560x1,920 pixel image at A4 size. That's 297mm high, or 11.7in. You can work out what resolution you'll get; 2,560 divided by 11.7 equals 219 dots per inch. Not quite 300dpi, but adequate.

The more dots you pack in each inch, the smaller, more closely spaced they'll be, and the better your eye will be fooled into seeing a continuous image. At arm's-length reading distance, 300dpi is good enough. Further away, such as on a large poster that's across a room, 100dpi or even less may be fine.
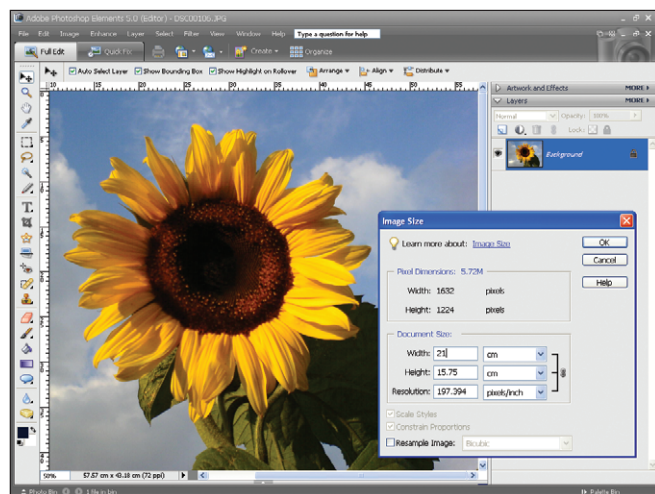
CHECKS AND BALANCES
To check the pixel dimensions of a digital photograph, open it in your image-editing program and go to the Image Size command. (You'll get a similar dialog box when creating a new image from scratch.) This will also show a physical size and a resolution in dpi. Remember, the pixel dimensions are real; the image consists of that number of pixels. The physical size and resolution are just nominal values stored for your convenience. Make sure the Resample option is unticked, then enter the physical size at which you want to print the photo, choosing inches or centimetres from the menu. The resolution updates automatically to show you how many dots per inch you'll get at this size.

As long as it comes out larger than 300dpi, you're fine. If it's way over, though, consider downsizing the image. It will take up less memory and print faster, and you can make it look sharper. If, however, you get significantly less than 300dpi, you can resize the image upwards, making it bigger. This won't make it look perfect at the required size, but it will get blurry rather than pixelated, which looks better.

To change the pixel dimensions up or down, tick Resample, then enter 300 into the Resolution box (keeping the

▲ Use the Image Size controls to see which resolution you'll get at a certain size (or vice versa) or, by ticking Resample, to change the pixel dimensions. 'Bicubic' refers to the interpolation method used

▲ At 300dpi (top, left), a printed image will look sharp and clear. Using 200dpi (top, right) will give lower quality, but at a glance you might not notice the difference. However, 100dpi (above left) is too low for documents to be viewed at close quarters, and below this (above right) pixels are visible

physical size set to what you want). The software uses interpolation to re-create the image using this number of pixels. Interpolation is where, to re-create an image using a different number of pixels, the software has to average the colour values of neighbouring pixels so it can replace several pixels with one, making the image smaller, or insert new pixels between existing ones, making it larger. There are usually several different methods from which you can choose; Bicubic is normally best. This cannot be reversed later without losing quality, so keep another copy of your original image file.

A pixel's colour is usually defined as amounts of red, green and blue (RGB), the primary colours of light. Each of these is stored as eight bits (binary digits), representing the numbers from zero to 255. Hence the term 24-bit colour (3x8=24), also known as true colour, because the total of 256x256x256=16.7 million colours is about as many as the human eye can distinguish. When you apply adjustments to an image in software, some colour detail is often lost.

Starting with more data helps ensure that what is left is never visibly degraded, and so images are sometimes stored with 16 bits per colour channel, giving a total of 48 bits. Only more advanced software can handle this.

PRIMARY SCHOOL
An alternative colour format is CMYK, based on the primary colours used for printing: cyan (sky blue), magenta (hot pink), yellow and black. Few consumer graphics programs support CMYK, but you don't often need it these days anyway.

Finally, individual colours can be specified as Pantone numbers. A commercial printer will look up these in a reference guide and mix the exact ink to match. It's tricky to incorporate Pantone colours into images, but you can use them as 'spot' colours in DTP layouts if you arrange this with your printer. They're also used to specify the solid colours in which vector graphics can be screen-printed on to T-shirts, mugs and so on.

BEFORE   AFTER

HOW TO...
Paint a rainbow
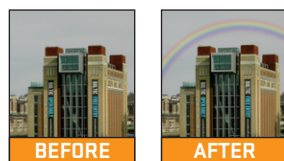
If you're under the weather, there's an easy way to put some colour in your day: just use Corel Paint Shop Pro to perk up the dreariest skyline instantly

You can't always rely on the weather to brighten up your photos. A rainbow can make a grey sky more cheerful, and adding one in your image editor is much more convenient than capturing one with your camera. Here's how to do it in Corel Paint Shop Pro X. If you have other software, the method will differ. Users of Photoshop Elements should refer to the 'At a glance' box opposite.

1 Start Corel Paint Shop Pro X and open your photo. Click on the Background and Fill Properties swatch at the top right of the Materials palette. If you can't see the palette, select it from Palettes on the View menu. In the Material Properties dialog box, click on the Gradient tab. Under Style select the third option, Sunburst. Click on the triangle to the right of the swatch above this to show a list of presets and choose Rainbow.

2 This gradient has the seven colours of the spectrum, but the wrong way round. Tick the box next to Invert to switch them. Then click Edit. In the Gradient Editor, click Save As and enter a new name such as 'My rainbow'. Check the Gradient scale. Each colour has a Stop you can move left or right.
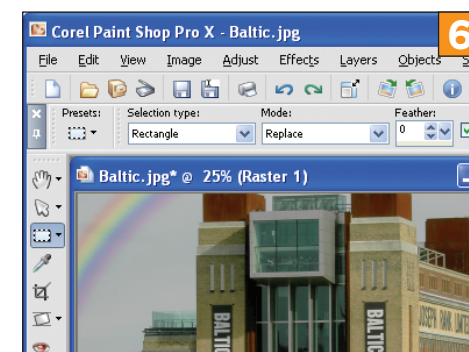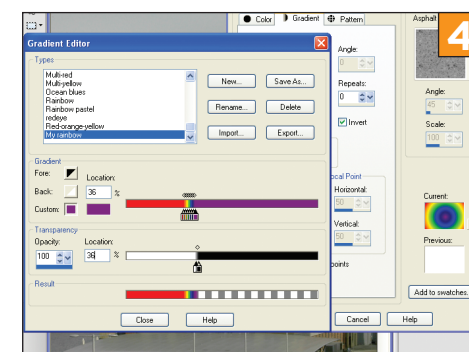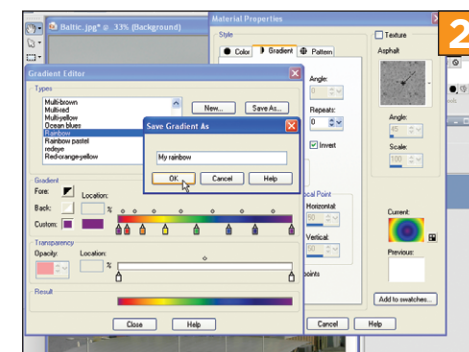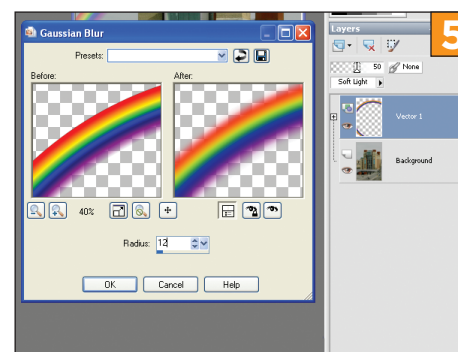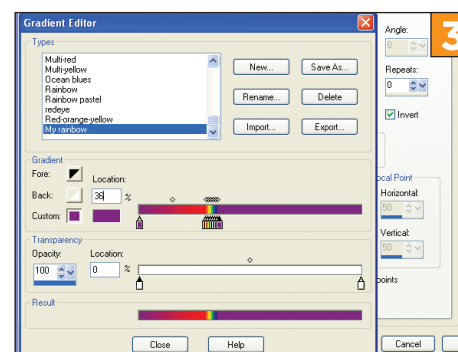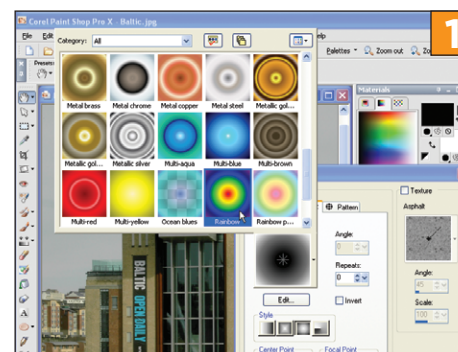
3 Not all the gradient will be visible when you apply it to a circle; in Paint Shop Pro, only about 70 per cent appears. With Invert, this is the last 70 per cent on the scale. So move your first colour, red, to the 30 per cent position. Either drag the red Stop until the Location box shows 30% or click on the Stop and type 30 into the box. Move the other colours to follow on as closely as possible. Again, you can click on each Stop then enter the next Location: 31, 32 and so on. Keep the colours in the correct order: red, orange, yellow, green, blue, indigo, violet.

4 You should end up with violet at 36 per cent. If you have any Stops you don't need, drag them off the scale. Finally, make the gradient fade off at the
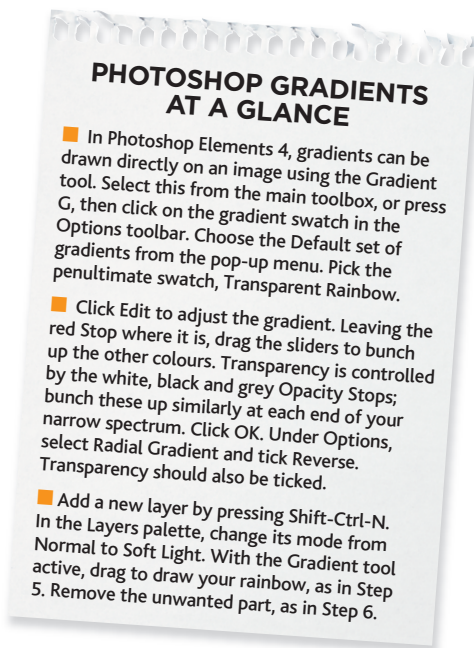
right. Click on the right-hand Stop on the Transparency scale, which is located below the Gradient scale, and type 0 (zero) into the Opacity box on the left. Set Location to 38. Click the left-hand Transparency Stop and set its Location to 36. Its Opacity box will be set to 100. Click Close, and when asked if you want to save your changes click Yes. Click OK in the Material Properties dialog box.

5 Select the Ellipse Vector Shape tool, the third of the pop-out icons on the fourth button from last in the main toolbox, or press the Q key. In the Options toolbar, click the circle icon under Mode and tick Create On Vector. Holding the Ctrl key to draw from the centre, click at horizon level on one side of

PHOTOSHOP GRADIENTS AT A GLANCE

■ In Photoshop Elements 4, gradients can be drawn directly on an image using the Gradient tool. Select this from the main toolbox, or press G, then click on the gradient swatch in the Options toolbar. Choose the Default set of gradients from the pop-up menu. Pick the penultimate swatch, Transparent Rainbow.

■ Click Edit to adjust the gradient. Leaving the red Stop where it is, drag the sliders to bunch up the other colours. Transparency is controlled by the white, black and grey Opacity Stops; bunch these up similarly at each end of your narrow spectrum. Click OK. Under Options, select Radial Gradient and tick Reverse. Transparency should also be ticked.

■ Add a new layer by pressing Shift-Ctrl-N. In the Layers palette, change its mode from Normal to Soft Light. With the Gradient tool active, drag to draw your rainbow, as in Step 5. Remove the unwanted part, as in Step 6.

the photo. Drag up and across to draw a large circle. Click Edit, Undo, or press Ctrl-Z, and redraw as necessary to get it looking right. You may need to zoom out by rolling the mouse wheel.

In the Layers palette (also accessible from View, Palettes) your circle's layer, Vector 1, is highlighted. Using the controls above this, change its blending mode from Normal to Soft Light and reduce its opacity to 50 per cent. Then go to Adjust, Blur,

Gaussian Blur. Click OK to convert the vector shape to a normal layer; its name changes to Raster 1. Set Radius to around 12 and click OK.

6 Finally, remove the unwanted part of the rainbow. Choose the Selection tool, the third icon in the toolbox, or press S. Set the Selection type to Rectangular. Draw around the lower part of the photo and press Delete.

HOW TO…
Create a logo

To create precise drawings with accurate shading, you need a vector-drawing program. Here's how to make a cup of coffee logo with Serif's DrawPlus 4

Image-editing software is great for everything from retouching photos to creating your own masterpiece. However, it's not quite as effective when you need clean, simple graphics that can be displayed and printed at any size, a common requirement for business graphics and corporate identity. The right tool for this job is vector-drawing software.

Many people are put off vector drawing by bezier curves. Mastering these is essential for professional designers. However, it is possible to create effective graphics without using beziers or any other advanced features. In this article, we are going to show you how to draw a logo using DrawPlus 4, which is free to download from www.freeserifsoftware.com.

Even though your picture will be simplified and stylised, it should convey the way an object looks, not a diagram or symbolic representation of it. Have the object, or a photo of it, in front of you. View it from a three-quarter angle, not straight on.

EXPERT TIP
Save your drawing as a DrawPlus .dpp file for future editing, and export it as a JPEG for use in other software.

1 Run DrawPlus 4 and click on Create a Drawing, Next, Finish. Zoom in a bit by clicking three times on the magnifying glass with a plus sign at the bottom left. From the toolbox on the left, click on the fifth icon to pop out a choice of QuickShapes.

We're going to draw a coffee cup, so our main shape will be a circle. Choose the second icon, QuickEllipse. In the Fill tab on the right, set the colour to Burgundy. In the Line tab, choose None from the first pop-up menu.

Click and drag on your blank page to draw the shape. Hold down the Ctrl key to make a perfect circle.

2 A key technique is to use one shape to mask another. To create the rim of the coffee cup, as if seen from slightly above, use a second circle copied from the one you just drew. Holding down the Ctrl

key, click on the circle and then drag it slightly up towards the top of the page. The cursor shows a Copy symbol. Release the mouse button to create the copy, almost exactly on top of the original, then change it to White using the Fill tab. Drag the square handle at the bottom centre to squash the circle.

3 To draw the coffee inside the cup, think creatively. If you click the QuickShapes icon in the toolbox again, you'll see that one of the options is a spiral. Choose this, then click and drag over the top of your squashed circle. It doesn't matter for now if the size and position aren't exactly right.

Above and below your spiral are its QuickShape 'nodes'. Drag the top one all the way to the left for a single spiral, then drag the bottom one a little way to reduce the number of turns.

4 To position the spiral, switch back from the Node tool to the main Pointer tool at the top of the toolbox. Resize the shape by dragging its handles and move it around either by dragging or by nudging it with the cursor keys. Position it slightly lower than the white ellipse, because the coffee would be below the rim.

Next, draw the cup's handle. From the QuickShapes, choose QuickDonut. Draw this on the side of the cup, then adjust its nodes. Drag the left one to the top so there's no break in the ring, then move the top one to adjust the hole in the middle.

5 To give the handle volume, add a highlight. Using the Pointer, hold down the Ctrl key while you drag (in other words, Ctrl-drag) the ring to copy it, then fill it White, as in Step 2. Drag its bottom-left handle to make it slightly smaller and off-centre. Then Ctrl-drag it downwards a little to make another copy
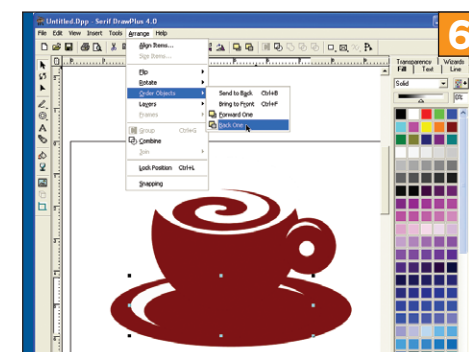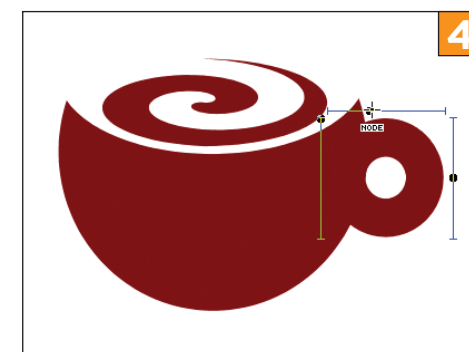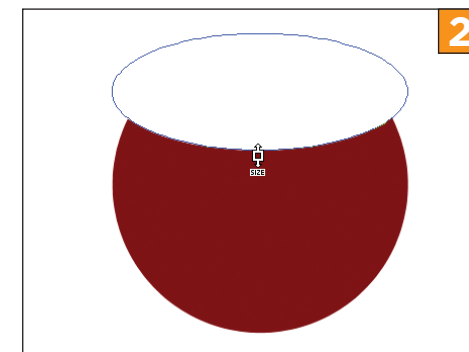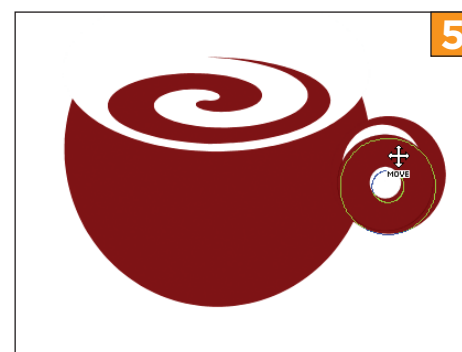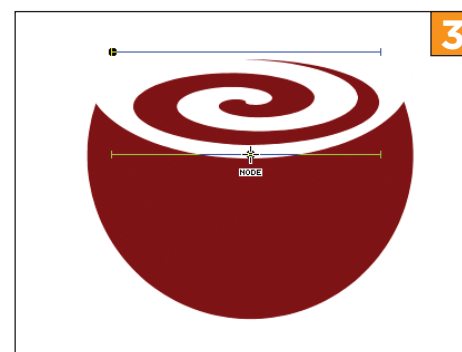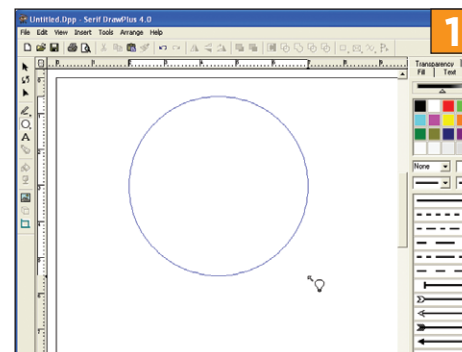
and fill this with the colour Burgundy. The second copy masks the first, leaving a half-moon highlight. Reposition the shapes as necessary.

6 You then need to Ctrl-drag your first circle downwards to make the saucer and drag its side handles to enlarge it. To convey the shape of the saucer, add a highlight using two copies, as for the cup handle. You'll need to make your shapes overlap in the

right order: to put the saucer behind the cup, for example, use Arrange, Order Objects, Back One. Add the base of the saucer using smaller White and Burgundy ellipses.

When your drawing is finished, press Ctrl-A to select all the shapes, then Ctrl-G to group them. You can now resize or reposition the whole drawing using the Pointer. The vector shapes will look perfectly smooth at any size.

HOW TO...
Work with vector images

Vector graphics enable you to create professional-looking logos and make text look more dynamic. Here we show you how to be quick on the draw

Vector shapes are described geometrically. Imagine that you have a piece of graph paper with the X and Y axes marked and numbered from 1 to 10. Mark points at, say, (1,5), (3,1), (7,8) and (9,3). Join them up with straight lines and you will have made an oblong. If you were then to give somebody else those coordinates, they could reproduce your oblong. It would always come out at the same angle, although it might be bigger or smaller than yours, depending on the size of their graph paper.

That's pretty much how vector graphics work. You can draw lines, circles, polygons, and more complex shapes defined using bezier curves. You don't have to enter the coordinates, unless you want to; just click and drag to draw shapes where you want. Files are relatively small, because all that's stored is a group of coordinates, and you can view or print your artwork as small or large as you like without any image-quality issues.

FONT OF KNOWLEDGE
The most common use for vector graphics is one that might not be obvious: displaying and printing text. Fonts on your PC are stored as vectors, so characters look smooth and crisp whether they are rendered onscreen or printed across a giant poster. When you add text to a photograph in an image-editing program, it's still usually stored as vectors, which can be scaled and edited independently of the image's bitmap content. When you typeset text in a DTP program (or in Word), it's also handled as vectors, as are any lines and boxes on your pages.

If you want to send artwork containing text to another user who may not have the same fonts as you, one way to ensure the text stays the same is to convert it to paths, so the character shapes are recorded rather than a link to the font. DTP programs can now do the same thing in a more elegant fashion by embedding a copy of the font file in the document. This works only within that document, and not with other tasks on the recipient's PC.

GRAPHIC DETAIL
When you need to create graphics that may get re-used in various different contexts, such as a corporate logo, the professional approach is to draw them using vectors, so they can be reproduced easily at different sizes. Many bitmap image editors support vector shapes, which are stored on separate layers, like text. Although you still work on an image file with specific pixel dimensions, you can scale it up later and the vector elements will remain

smooth. Vector drawing programs take things further, allowing you to build up finely detailed and shaded illustrations. Nowadays, they incorporate bitmap effects, allowing things such as soft-edged shadows that would be hard to create using vectors.

Microsoft Expression Design is a unique vector-drawing program that creates fluid, paint-like strokes.

Download it as soon as you can, while it's still available as a free beta, and make it your secret weapon for instant graphics that look as if they required enormous skill.

Alternatively, you can try Creature House Expression, the original version, which is available free of charge at www.tinyurl.com/2nqxhc.

▲ Microsoft Expression Design is a creative vector drawing program that's well worth using to create distinctive graphics
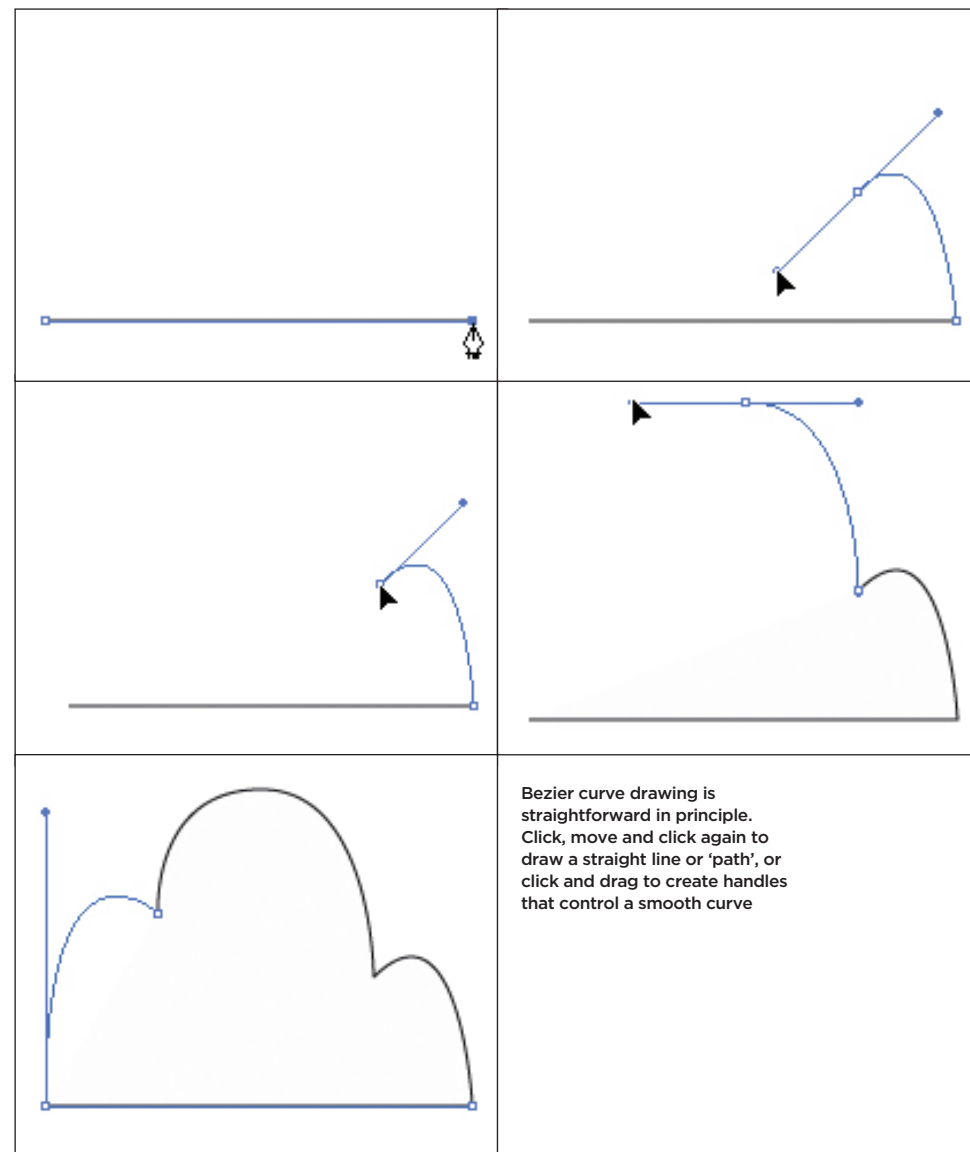
Bezier curve drawing is straightforward in principle. Click, move and click again to draw a straight line or 'path', or click and drag to create handles that control a smooth curve

HOW TO...
Make a mask

If you need a mask for a party, why not make your own? Here we show you how to use to Photoshop Elements to create the perfect disguise

Masks are always a good party novelty, especially if you create them from faces that are relevant to the occasion. This could be animals, politicians and maybe even your guests – whatever fits the mood. Masks can go down just as well on a stag or hen night as they do at a child's birthday party.

There are three stages to making a mask. First, you need to create a template with the eye holes in the right place. Second, you have to fit a photograph on to it. Third, print out and finish. Below, you can see how to complete the first two tasks in Photoshop Elements 5. Similar steps can be used in other image editors.

A sheet of A4 paper is large enough to fit an adult face on, so you'll be able to print your image on any inkjet. Before cutting it out, stick the printout to a sheet of thick card. Ideally, use spray mount adhesive, available from art shops. Then carefully cut it out. We suggest you draw the outline using straight lines, which you can cut along using a craft knife and ruler.

To make the mask wearable, you could attach ribbon between holes on each side, level with the eyes. For the best results, reinforce the holes using eyelet pliers, which cost £2.99 from www.maplin.co.uk (code RM54J). Alternatively, you can mount your mask on a stick. Use a flat stick such as a large lollipop stick; you can get 20 for £2.99 from www.cakescookiesandcraftsshop.co.uk. Fix the stick to the back with strong glue or tape, overlapping it enough to hold the mask upright.

**1** Run Photoshop Elements 5 and click Edit and Enhance Photos. Go to File, New, Blank File (or press Ctrl-N). In the New box, choose A4 from the Preset pick list. Make sure the Color Mode is RGB. Next, change the Width to the required distance between the eyeholes. This should be around 65mm for adults and 50mm for kids. Set Background Contents to Transparent. Click OK to make a long, tall page that's transparent, indicated by a checkerboard.

2 Select the Marquee tool, fifth from the top in the toolbox on the left (or press M). In the Options bar at the top, choose the Elliptical shape, set Feather to 0, and tick Anti-alias. From the Mode pick list, choose Fixed Size. Set Width and Height to 1cm. Click anywhere on your page to select a 1cm circle. Choose Fill Selection from the Edit menu, or press Shift-Backspace, to bring up the Fill Layer box. Under Contents, choose Black. Set Normal, 100% and untick Preserve Transparency. Click OK to colour the circle black.

3 People's eyes are about halfway up their heads, so centre the circle. Press Ctrl-X to cut it, Ctrl-0 (zero) to fit the whole page in the window, then Ctrl-V to paste the selection into the middle. Then go to Image, Resize, Canvas Size. Set the Width to 105mm (half A4) and click the middle-left Anchor position. Click OK.

4 You may want to save this template as a Photoshop (.psd) file for future use. Next, go to File, Open (or press Ctrl-O) and load a photo. Pick the Move tool from the top of the toolbox (or press V), click on the photo and drag it on your mask template. Press Ctrl-[to send the photo's layer behind, so you can see your black circle on top. Position the photo so half the head roughly fills the page, with the centre line of the face on the right edge and the eye lined up with the circle. Resize the photo by dragging a corner handle of its bounding box and, if necessary, rotate it by moving the mouse just off a corner to show a turning arrow symbol, then drag. You may need to zoom out by pressing Ctrl and the minus (-) symbol or enlarge the window to keep the handles visible.

5 Press Return or click the green tick button. Then cut out your half-face. Choose the Lasso tool from the toolbox (or press L), and in the Options bar choose Polygonal Lasso, the last of the three icons on the left. Click at the top of the face on the right edge
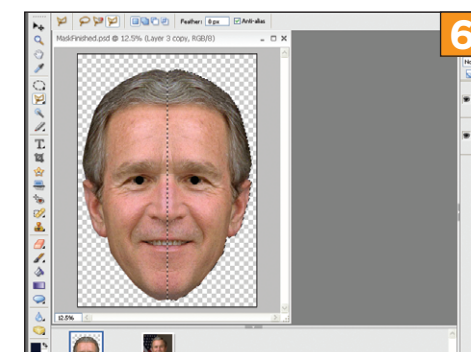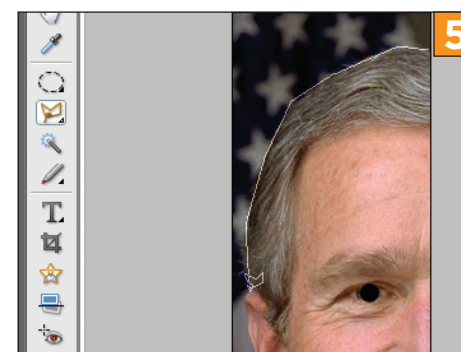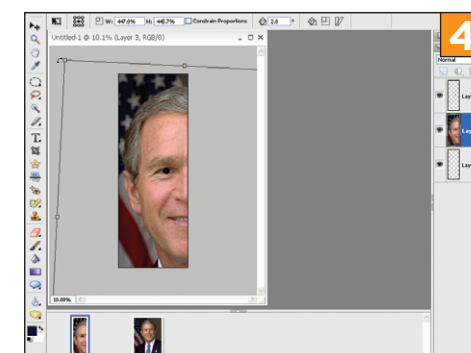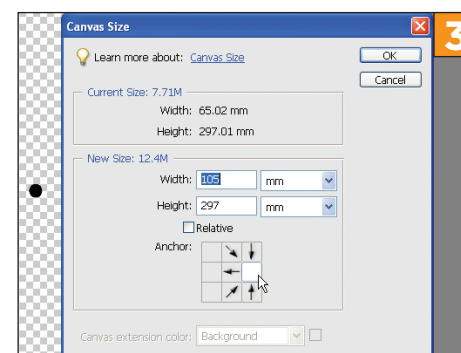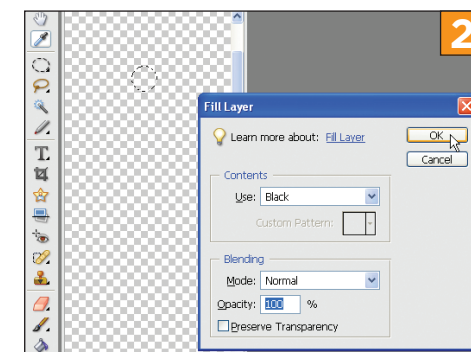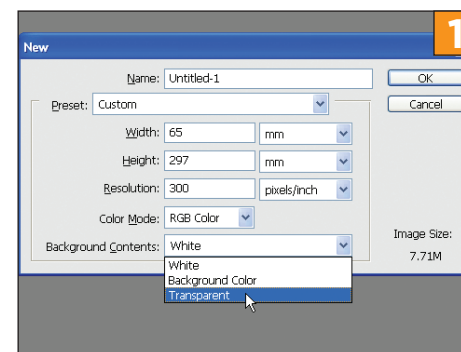
of the page, release the mouse button, then move along the outline of the face to make a straight line. Click again to draw this line and continue around the face. Don't try to be too precise. Finish at the bottom right and double-click to join the line back to the beginning. Zoom in by pressing Ctrl and the plus (+) symbol to check that the selection goes right to the edge of the page. Press Ctrl-Shift-I (Inverse) followed by Delete to remove the background.

6 Next you need to Image, Crop; this will cut off the unseen, unused parts of your image. You need to press Shift-Ctrl-E to merge the layers. Then go to Canvas Size as in Step 3, set Width to 210mm and choose the middle left Anchor position. Click OK. Go to Layer, Duplicate Layer and click OK in the dialog box. Finally, you just have to press Ctrl-A (Select All) and then go to Image, Rotate, Flip Selection Horizontal.