### MEMBERS NOTICE BOARD

Please use this Notice Board to benefit other members.



### FOR SALE

### **HARDWARE**

PCI Graphics Card
with SiS Chipset
boxed with CD and User Manual
£10

### Contact:

The Editor 562569

### FOR SALE

### **SOFTWARE**

Easy CD Creator 4 Deluxe with disks and manual £10

**Contact:** The Editor 562569

### FOR SALE

### **HARDWARE**

**USB Keyboard** 

£10

### **Contact:**

The Editor 562569

### **CLUB LIBRARY**

### **BOOKS FOR LOAN TO MEMBERS**

### Microsoft Windows Me Bible

950 pages on how to master the Windows Me operating system

\*\*\*\*\*\*

### Microsoft Office 2000 Professional "At a Glance"

400 pages with visual reference on how to master the software

\*\*\*\*\*

### **Contact:**

The Editor 562569

Hot Key is published on the first Wednesday of every month. This edition was compiled using Microsoft Publisher 2000 and reproduced on an Epson Stylus C80 colour inkjet printer and Epson Stylus 880 colour inkjet printer.

The views and opinions expressed here are those of the contributors alone. No responsibility can be accepted with respect to advice or suggestions made in this journal.



### **ISLE OF WIGHT PC USER GROUP**

www.iwpcug.org

### MONTHLY JOURNAL

**Issue 141 – August 2003** 



Our thanks go to Dennis Parkes for an outstanding presentation on "Motherboards and Hardware" at the Riverside Centre recently. Dennis was very thorough in explaining about the various parts that go to make up an efficient computer, starting with the heart of the computer, namely the motherboard. Dennis then proceeded to explain how to install the processor, heat sink and fan and then went on to illustrate how the memory differs from the Pentium and AMD motherboards. The hard drive was then installed on the motherboard with an IDE controller lead, as was the floppy disk cable, which has to be installed in a certain way. A graphics card with 32Mb of RAM was then installed on the motherboard in the AGP slot. The various serial ports, printer port, keyboard and mouse ports were shown on the motherboard. A DVD-Rom was then connected up and installed as a secondary master on the motherboard.

After the coffee break, Dennis mentioned that USB 2.0 slots and onboard sound can be found on the latest motherboards.

In This Issue

Future Meetings 2

Editorial 4

Humour 5

Light Relief 6

Barbecue 7

Digital Innging 8-10

My Profile 11

Bill Combley 12

Partition Magic 13

Prize Puzzle 14

Notice Board 16

6th August	DVD & CD video file formats and conversions	Dennis Linzmaier
20th August	Annual Barbecue at Bob Groom's place	Bob & David Groom
3rd September	Digital Photography	Roger Brown
17th September	Beginner's Guide to Web Programming	David Groom and David Broughton
1st October	Networking	Mike Collins
15th October	Broadband	Dennis Linzmaier
5th November	Internet Services and Spam	Gwynn White
19th November	Show Organisation & Member's Displays	
23rd November	Annual Computer Show at Riverside Centre	Cliff Maidment (organiser) with David Groom
17th December	Christmas Party at Riverside Centre	

### **Contributory Managers**

### **Museum Curator:**

John Austin, 22 Coronation Road, Cowes, I.W. PO31 7JY - buzz austin@yahoo.com 291673

### E-mail Discussion Group "iwpcusers":

Owners: Roger Skidmore and David Broughton

Moderator: Rob Webb

### E-mail Discussion Group "IWPCUG-Web-group":

Owner: Rob Webb, 46 Solent View Road, Ryde, I.W. PO34 5HX - bwana@ntlworld.com 613693

Moderator: David Broughton



Our Chairman, Silvia pictured at Riverside Centre

	1	0	ဂ	Ş	3		
	6	5	1	4	7		
	5	4	3	8	3		
. 4	4	£:11 : 4		111	¢ -	5 5t.i1	L
task in the June edition versions and two main diagon	als had	d to ado	d up to	the sa	me nı	ımber (which w	as

Your ere all the rows, colum s not given). The red numbers in the diagram above were the missing numbers. This proved an easy puzzle, despite not knowing the sum. The top right cell is common to a diagonal and the top row so whatever its value, the other cells must add up to the same figure. The diagonal components are four fives which add up to 20, so the top row also sums to 20 and this fixes the value of one of the unknowns to 3. This then sets the row and column totals to 23, determined by the second column. After that, everything falls into place.

I received ten answers. They were from Michael Hodge, Peter Wreford, Peter Woollerton, Leonard Brett, Gordon Stonham, John Amos, Peter Greenhalgh (who sent in a spreadsheet with the answer), Les Burroughs, John Moxon and Rosemary West, who won the draw and the £5 book token. For those who are keen spreadsheet operatives, a challenge is to fill in the missing cells with formulae to make the spreadsheet do the work! If anyone is interested in seeing how this is done, ask me for a copy.



Ray Boote, our Membership Secretary, at a recent meeting at the Riverside Centre

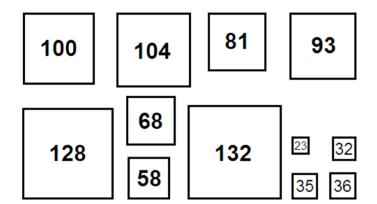
14



### PRIZE PUZZLE CORNER AUGUST 2003

by David Broughton





puzzle this month is to pack the twelve squares shown in the above diagram into a rectangle without leaving any spaces.

Whilst this may seem a difficult task at first, you will find that many combinations of sizes are equal to others, suggesting possible packing schemes.

You can tackle this puzzle in several ways: all of them require some inspection of the square sizes, but to test how they might go together, you could cut out the squares (or a reproduction of them -- they are drawn to scale -- see also the web site) to see how they might go together; or you could sketch possible packing arrangements on paper. (If you cut out the squares, make the cuts through the centre of the borders to get accurate scale sizes.) Another method is to use Paint or a similar graphics program. For this purpose I have reproduced the above diagram in the puzzle section of the web site so that you can download it to shift the squares around using the select tool. More information about how to do this is at:-

 $www.iwpcug.org/davidbro/puz0308.htm \ {\rm where \ you \ will \ find \ a \ reproduction \ of \ the \ diagram.}$ 

You can send me your answers either as a sketch, a scale drawing on graph paper or a printout of the result if you use a graphics program (but please compress in GIF format).

Please send your answers to me, David Broughton (see page 3 for addresses), to arrive by Wednesday 3rd August.

ISLE OF WIGHT PC USER GROUP - COMMITTEE ME	MBERS
Chairman/Riverside Liaison: Sylvia Farley, 166 Gunville Road, Newport, I.W. PO30 5LS E-Mail:- amelie@btinternet.com	<b>5</b> 21566
Secretary: Christine Jenkins, 19 Newport Road, Lake, I.W. PO36 9LW E-Mail:- chrstjnkns@aol.com	402155
Treasurer: Bob Groom, Bembridge Lodge, High Street, Bembridge, I.W. PO35 5SQ E-Mail:- bob@blodge.demon.co.uk	872707
Membership Secretary/Database Manager/Hot Key Distribution: Ray Boote, VARNA, East Hill Road, Ryde, I.W. PO33 1LL E-Mail:- ray.boote@ic24.net	565190
Vice Chairman/Webmaster: David Broughton, Westwards, Hulverstone, Newport, I.W. PO30 4EH E-Mail:- davidb67@clara.co.uk Mobile:- 07762 486391	740421
Journal Editor/Cover Disk Producer/Librarian: Brian Sexton, 48 Ashey Road, Ryde, I.W. PO33 2UT E-Mail:- alleyne@clara.net	562569
Computer Custodian: Dennis Linzmaier, 20 Queens Road, Sandown, I.W. PO36 8DJ E-Mail:- dennis.linzmaier@iow.gov.uk	403642
Marketing: Derek Cox, 30 Manor Crescent, Rookley, Ventnor, I.W. PO38 3NS E-Mail:- tomderek.cox@virgin.net	721629
Show Organiser: Cliff Maidment, 1 Palmers Road, Wootton, Ryde, I.W. PO33 4NA E-Mail:- cliffm@clara.net	883642
Committee Member: David Groom, Bembridge Lodge, High Street, Bembridge, I.W. PO35 5SQ E-Mail:- dmgroom@hotmail.com	872707
Chairman - Computability Section Roger Skidmore, 47 Quay Street, Newport, I.W. PO30 5BA E-Mail:- rogerskid@supanet.com Mobile:- 07732 480201	822900
Disability Resources Co-ordinator: Helen Edom, Flat 1, Glenfield Court, Whitcombe Road, Carisbrooke, I.W. PO30 1ED E-Mail:- helenedom@tesco.net	527208

### **EDITORIAL**



A letter received from one of our members:

Barry Cant (01983 525080) E-mail: baz@wight365.net

After Denny's talk on using two monitors on June 18th, I thought this sounded very good and would be of use to me. Of course Denny made the job sound so simple, but do these jobs ever go so well?

I went out and bought a PCI graphics card for around £20.00 and had no trouble inserting it into my AMD Athlon XP 1500+ computer. I connected up a second Elonex super VGA 14 inch monitor as well as my Belinea 19 inch monitor and switched on my computer but nothing happened, not even a bleep! I checked all connections, had a good head scratch but to no avail. So I took the new card out and the computer started up ok. I tried refitting the card with the same result. So I thought I would turn to the IWPCUG e-mail group for help.

Roger Skidmore contacted me to see if I had managed to sort out the problem but on hearing that I hadn't, he offered to pop up and see if he could help. After much swapping around of PCI cards, taking out my AGP card etc., nothing improved. So we called it a day to ensure I was left with a working computer. A few days' later Roger phoned to inquire if I had made any progress. As I had not given it any more thought I thought I had better try another approach. I then tried the PCI graphics card in my spare computer, a Packard Bell P 350. I had the same result, the computer would not boot up. This confirmed to me that the card was probably faulty so I returned it to the shop for them to try. They had the same result with the card and also another new one from their stock. The PCI graphics card was faulty, it was not me!

I then inquired about using a dual AGP card, namely a Radeon 9200 64 MB DDR AGP 8X card. This, of course, was more expensive at about £65.00, but should, I was told, do a better job. I fitted this new card and the two monitors worked ok but there are a lot of options with this new card which I will investigate at a later date. If any one else is using one of these cards perhaps they might be able to explain how the V-Tuner works. I do not run the two monitors all the time, only as and when needed. I am now trying to set up the networking of these two computers, but that is another story.



The Isle of Wight PC User Group welcomes all owners and users of IBM Compatible Personal Computers. It is a group which seeks to exchange ideas and new information. Our meetings are bi-monthly on Wednesdays of each month at The Riverside Centre, Newport, 7.30 - 9.30 pm.

The first Wednesday has usually a formal talk whilst the third Wednesday is more informal, geared to the new user and aims to help out members with specific problems.

Membership is £12 per year.

Visitors are welcome.

This journal, "HOTKEY", is printed every month. If you would like to know more about us, either come along to one of our meetings or contact one of our Committee Members listed on page 3.

Club's Website - http://www.iwpcug.org/

By Vic Awdeychuk, NOCCC



PartitionMagic has been around for several years and has seen a steady evolvement into a top-notch utility. PartitionMagic 8 helps one to organize and protect your data and at the same time, allows greater efficiency in your PC work effort. Installation of PartitionMagic 8.0 was straightforward. The CD Rom comes with DataKeeper 5.0 and BootMagic 8.0, so those applications can also be installed. By default, PartitionMagic 8 installs in its own directory and does not overwrite previous versions or affect the existing partitions setup. However older versions of PartitionMagic and DataKeeper remain on your hard disk and ought to be uninstalled later as a separate operation. PartitionMagic 8 is fairly simple to use and very reliable. The main window has "pick a task" menu (using wizards for guidance) and "partition operations" menu (for making changes without wizards). A user can Create a partition, Resize a partition, Copy, and Merge partitions. This allows users to better organize the hard disk drives – creating backup partitions, installing other operating systems. redistribute free space, split partitions, and convert partition type (Fat, FAT 32, etc.). It should be noted that a user has to know where he wants to go with his partition setup before starting to move partitions around. Creating or resizing a partition is easy as the user is led step by step, making selections within the permitted minimum/maximum limits of the hard disk.

It's fast! PartitionMagic 8 supports Windows 2000, XP, Me, 95B, 98SE, and NT Workstation. PartitionMagic also supports external hard drives using USB, USB2, GRUB and FireWire (1394) as well as Linux Ext3 partitions. New features in version 8 include:

the DataKeeper 5 backup program, a new versatile file browser, better wizards. improved "Hot" NTFS performance, and support for partitions up to 160 GB. At startup, BootMagic 8 allows the user to select from multiple operating systems, the one best suited for your desired task. DataKeeper 5 is a useful tool for protecting one's data files. This program runs automatically in the background. It continuously makes a backup thereby allowing a user to restore one or more files in event of a crash, or, in some cases, a virus attack. It is also useful in quickly finding any file changes or additions that may have been stored on your PC during visits to Internet sites. Some users choose to mix all programs and data files into one large partition. If that's your choosing, you really don't need this program. On the other hand, there are many benefits in organizing one's PC data file storage, and that is where PartitionMagic 8 will prove most valuable. With hard drives being so inexpensive nowadays, one can partition two hard drives having much greater efficiency while insuring more data protection. Proper partition organizing can: -

- -Reduce churning of program files stored in an OS only and Applications only partitions (less need for defrag).
- -Allow storage of one's data files into a separate data partition permitting easier backups, faster searching for personal files, and faster selection of files wanting to be trashed.
- -Allow one's use of several operating systems on one PC. This especially helps during the learning period required when upgrading to another OS.
- -Enhance one's ability to protect and retrieve data stored in separate partitions in some cases of software crash occurrences.
- -Speed up hard disk performance by storing often used and important data on the hard disk outer tracks while storing seldom used and junk data on the inner tracks. Inner track transfers data about half as fast as outer track transfers. The Quick Start Guide provided is a 54 page manual.

### BILL COMBLEY'S TALK



On Wednesday, 16th July Bill Combley gave us a talk with the title "Use of I.T. in Primary Education". Bill is the man in charge of the computing equipment at Nine Acres Primary School in Newport. Put another way he is in charge of "Information and Communications Technology" or I.C.T.

Bill started his talk with a Powerpoint presentation that outlined the equipment and organisation at the school -- and other schools in Newport, as they are connected in a network.

An Intel 330 hub is the centre of the communications network with an ISDN 128kbyte line to the Internet and several branches to various rooms and buildings within the school. They hope soon to have a broadband connection. The range of equipment is quite impressive. The computer room has 11 workstations, a laptop, a computer projector plus a colour and laser B&W printer. There are another 16 workstations in various buildings and classrooms. Most of the cabling is called "Cat 5" which he explained is a standard twisted pair, but a fibre optic cable is also used for some of the connections. Other interesting equipment consists of various digital cameras, a digital microscope, a scanner and some stand-alone word processing machines (AlphaSmart 3000) which allows pupils to prepare work away from the main computers.

In the past they used various types of computers but today they have standardised on IBM-compatible Pentium based machines running Windows 95 and 98.

Software includes most Microsoft Office products with much specialist software for teaching in Literacy, Numeracy, History, Science, Design Technology, Control & Modelling plus games.

Bill presented this information with ability and humour. In keeping the interests of classes he said if he could get a laugh from a class he was well away with the lesson that followed. He was asked many questions. One concerned the method adopted in dealing with those who were slow learners or who had problems with computing equipment. The solution was to pair up the experienced with the inexperienced if possible and teachers were encouraged to do this pairing before a lesson began. I.C.T. was not a curriculum subject: it was an aid to other curriculum subjects. In dealing with essays, for example, the emphasis was first in getting the text down in any form or manner without regard to formatting, spelling or grammar. Those matters were secondary and could be dealt with later.

Bill also dealt with the problem of internet security, firewalls and administration. He was asked many questions that he dealt with ably and we all learned something about the special problems that schools face when dealing with computer technology.

-- reported by David Broughton.

# H





**LIGHT RELIEF** 

One night a guy takes his girlfriend, the daughter of a minister, home. As they are about to say goodbye, the guy starts feeling a little romantic. With an air of confidence, he leans with his hand against the wall and smiling, he says to her, "darling, would you give me a good, long good-night kiss?"



Horrified, the strait-laced girl replies, "are you mad? My parents will see us!"

"Oh come on! Who's going to see us at this hour?"

"No, please. Can you imagine if we get caught?"

"Oh come on! There's nobody around, they're all sleeping!"

Ann: "No way. It's too risky!"

Bob: "Oh please, please. I love you so much!"

Ann: "No, no and no. I love you too, but I just can't".

Bob: "Oh, yes you can. Please!"

Ann: "No, no. I just can't.

Bob: "I beg you......

Out of the blue, the light on the stairs goes on and the girl's sister shows up, clad just in her pyjamas, hair dishevelled and in a sleepy voice, she says; "Dad says to go ahead and give him a good-night kiss or I can do it. Or if need be, mum says she can come down herself and do it. But for Heaven's

Sake tell him to take his hand off the intercom......".

An airplane was about to crash; there were 5 passengers on board but only 4 parachutes.

The first passenger said, "I'm Mats Sundin, the best NHL hockey player, the Leafs need me, I can't afford to die...So he took the first pack and left the plane.

The second passenger, Hillary Clinton, said, "I am the wife of the former president of the United States, I am also the most ambitious woman in the world and I am a New York Senator." She just took the second parachute and jumped out of the plane.

The third passenger, Jean Chretien, said: "I'm the Brains of Canada, I have a great responsibility being the leader of the greatest nation in the world. And above all I'm the smartest Prime Minister in Canadian history, so Canadians won't let me die". So he grabbed the pack next to him and jumped out of the plane.

The fourth passenger, the Pope, says to the fifth passenger, a 10 year-old school boy, "I am old and frail and I don't have many years left, as a Catholic I will sacrifice my life and let you have the last parachute.

The little boy said, "It's OK, there's a parachute left for you. The Brains of Canada has just jumped with my school bag".

Our thanks to the NOCCC newsletter for this humour

### MY PROFILE by Brian Sexton

11



I was born in Parsons Green, London on April 9th, 1938 and spent much of my childhood and schooling in Fulham before being transferred to Wandsworth Technical College, where I graduated with a pass of 1 GCE in metalwork. My first job was with the North Thames Gas Board in Fulham, as a laboratory assistant and then worked for the old County Council Offices at Westminster before changing to a grocer's assistant in a shop called 'Rapsons', Earls Court, London, which was more in line with my interests. It was at this job that my finger was caught in the coffee grinder and fortunately my finger was stitched back on by the local hospital. It was whilst working at Rapsons that I was called up to do the compulsory 2 years National Service in the RAF. After completing my six months training at RAF Cardington, I was posted to Nicosia, Cyprus and then onto Habbaniya, Iraq, where I was the Secretary to the Wing Commander of the base. I was also involved in the Camp Radio Station, where I was the radio presenter for a weekly Jazz Music program.

After completing my National Service, I worked for Cadbury's in Regent Street, London as a sales trainee but my destiny changed in that after meeting a friend at the Hammersmith Palais (where I met my first wife), I eventually decided, after much indecision to emigrate to South Africa to start a new life. On arriving in Johannesburg, with no job to go to, I toured the various gramophone record companies to check on availability of work. I was fortunate in landing a sales job, for Gallo Record Company, in a department store, where I worked my way up to managing a number of retail outlets in the Johannesburg area. I was then offered a job in Durban, Natal, as a promotion and managed a group of music departments in various retail stores. After proving myself, a rival company, Teal Records, offered me a similar job in Johannesburg, managing 33 gramophone record retail shops.

With the normal ups and downs of life, I came back to England and worked in the West End and City of London, for Polydor Records, as the area salesman and lived in Dunstable, Bedfordshire. The opportunity arose to move to Ireland as the marketing manager of Philips Records and lived in Dundrum, Eire until 1973, when my then wife decided she wanted to return to South Africa with our two very young children. I too decided later to join them and continued my career in the music business with EMI, Johannesburg. However, after years of struggle in my marriage, a divorce ensued and I was on my own for 17 years until I decided to return to England.

In the meantime before coming back to England in July 1992, it was fortunate for me that I discovered Christianity and became a born-again Christian in 1980 in Johannesburg and went to Bible School there for two years. I was involved in ministry to 14 black hospitals and was a counsellor at the Rhema Church in Johannesburg.

I moved to the Isle of Wight in 1992, where I met my second wife Brenda and subsequently bought my first computer from Dixons, Newport, which was a Pentium 60 with 32Mb of RAM and have progressed from there. I have been the Hot Key editor since January 1998. I am also the Hospital Secretary for the Gideons on the Isle of Wight and a member of the Zion Chapel, William Street, Ryde.

If you need to select an irregular portion of a picture that is clearly defined, then the Magnetic lasso is the simplest tool to use. Hold the mouse down over the lasso icon then select Magnetic Lasso Tool. As you draw around elements of your image, you will see that the dotted marquee line jumps to the part that is most clearly defined.

### Making the best print

Editing images onscreen is fine to a point, but many people who use digital cameras and scanners also want to print out their photos.

Getting the right size: In the section on image editing, we discussed changing the overall size of an image on screen - but resolutions on a monitor and on paper are two very different things. When using Elements to adjust your picture, go to Image, Resize, Image Size, but if you are adjusting the size of a picture for print you need to make changes to the lower box, Document Size, rather than Pixel Dimensions. Here you can set the dimensions for your photo as it will appear on the page in inches, centimetres or pixels. Dots per inch: Changing dimensions for a print is not, by itself, enough. A photograph that looks crisp onscreen can become very blurred when printed out because of differences in resolution. Images look sharp onscreen at 72dpi (dots per inch), whereas prints require at least 150dpi. In the same box where you change the size of a document, you can also set its resolution as pixels per inch/ centimetre.

Increasing the resolution of a photograph from a digital camera will usually reduce it in size (cameras operate at 72dpi), while the claims made by some scanner and printer

manufacturers should be taken with a pinch of salt. Clear prints up to A4 size are usually possible at 300dpi; for enlargements, scan at 600dpi. Scanners that claim to import images at resolutions of 9,600dpi and above (sufficient to transform your postage stamp into an A0 poster) do so by digital interpolation. This has the side effect of turning images at full resolution into a blur. Paper and ink: Finally, for the best print from your scanned images/digital photos, pay attention to the paper and ink you use. Photographic quality is typically achieved by printers that use four or more colours (mixing cyan, magenta, yellow and black). Don't choose a cheap printer that does not provide a cartridge for true black, as shadows and dark areas will be muddy.

Likewise, do not expect spectacular results if you intend to print on copier paper. Something that is sufficient for letters is not suitable for high-resolution graphics. Be prepared to use glossy coated paper, or high-quality matte stocks, if you want to produce an image worthy of being displayed.

### Digital camera tips

- 1. Megapixels aren't everything. You're more likely to produce higher quality prints with a higher resolution but cameras that cut corners on optics may result in worse photos than competitors half their resolution (and price)
- 2. **Snap away**. Always take more pictures than you need. This way you're more likely to get the shot you want.
- 3. **More means more**. Storage with most cameras is usually paltry but with prices falling for flash memory be sure to go for 32Mb, 64Mb or even 128Mb cards.
- 4. **Go for long life**. Digital viewfinders chew battery power in minutes. Be sure to carry extra batteries when you're out and about and use the optical viewfinder as much as possible.

A 30 day trial of PhotoShop Elements 2.0 is available from **www.adobe.co.uk** 

Our thanks to Jason Whittaker and PC Advisor Magazine for this article

## ANNUAL BARBECUE at Bob Groom's Place







All members and spouses are warmly invited to our outdoor get together at:-**Bembridge Lodge, High Street, Bembridge** at **7.30pm**.

Please feel free to contribute deserts and cold drink. There is ample parking in the vast grounds and a big garden in which to relax and enjoy yourselves.

# We know email is frustrating. Bloomba is a better email solution.



### Do you need Bloomba?

Are you plagued by spam?

Is your Inbox overflowing?

Are you worried about spam and viruses?

Does your email client work against you rather than with you?

**Powerful:** Using SpamAssassin, SAproxy has the leading spam protection behind it. Using an exhaustive series of heuristic tests on the headers and body of an email, SAproxy is able to recognize most of the spam sent to you.

**Adaptive:** In addition to other techniques, SAproxy uses Bayesian filtering to learn from past Spam and more accurately identify new Spam. SAproxy's Bayesian filter learns through manual training and advanced Spam recognition technology.

http://www.bloomba.com

### Digital imaging tips & tricks



### Getting the image: digital cameras

Where digital cameras definitely have the advantage over their 35mm cousins is in accessing your image immediately after you have taken the shot. You don't need to wait for the film to be processed, nor do you even have to transfer the images to a PC to preview your work. Simply go to the LCD (liquid crystal display) panel on your camera and change to Preview mode, then flick through the images stored on the CompactFlash or SmartMedia memory. You can even delete the ones you don't want and take them again if necessary. However, you will want to transfer your images to a computer to optimise them for transfer to the web or for print. There are several ways to transfer your pictures.

Using serial or USB: This is the most common means of transferring images to a PC. The first step is to install any drivers that came with your camera so your system can communicate with it. Once these are installed and you have restarted your PC if necessary, connect your camera to it. Older models use a slower serial port (though this has the advantage of being able to connect to just about every PC), while newer ones use faster USB.

Using Twain: The software bundled with your camera is an easy way of copying images across to your PC. However, once you begin to use the device regularly, you'll find this isn't the most convenient way to transfer photos. More often than not, you will want to optimise the pictures, so importing them straight into image-editing software makes the most sense. To do this, you must ensure the drivers for

your camera are Twain-compliant; most are, but consult your camera manual to make sure.

For users of later versions of Windows, such as XP, drivers are easier to use than ever before. Open My Computer and you will see an icon for Scanners and Cameras. Doubleclicking this icon will open the device as a folder in Windows where you can perform basic tasks such as taking a picture or deleting

Twain drivers also integrate with applications such as Photoshop or PaintshopPro but most programs provide a menu option or icon to acquire images from a Twain-compatible camera.

Using a card reader: Windows XP in particular offers very straightforward means of working with most digital cameras, but the absolute winner in terms of ease of use must be using a card reader. These devices typically connect via USB and, once attached, treat CompactFlash or SmartMedia cards as removable drives that can be copied to and from at will.

### **Getting the image: scanners**

If you wish to edit photos from conventional film, your best option for transferring them to PC is via a flatbed scanner. Once you have connected your scanner and installed the Twain drivers, images can be imported. Most scanners come with some sort of imageediting software, but for this article we have used Adobe's Photoshop Elements 2.0.

Making the connection: Connecting to the scanner with Photoshop Elements is simple. From the splash screen, select Connect to Camera or Scanner and then choose your device to open the scanner driver. Alternatively, go to File, Import to scan an

Importing the image: Once you have your photograph positioned on the scanning area, click on the Preview buttons to view it. You can draw a marquee around the picture to



select only the area you need and the drivers will allow you some control over the image - whether Image, Crop. to scan in colour, black and white, to select a resolution and more detailed control over the tone and contrast of your image. Once you have these settings right, click the Scan button to import the image into Elements.

### **Optimising the image**

Now that your photographs are on the hard drive, it's likely that you will want to change the images in some way; perhaps they are the wrong way round or too dark or you need to crop the picture to remove unwanted details. We'll cover some of the most basic tasks for optimising images using Adobe's Photoshop Elements 2.0.

Rotating images: You can use the default welcome screen in Elements to browse for a file or go to File, Open to display your selected image. If you have taken a photograph holding your camera at an angle or the original was not correctly placed on the scanner, the image will need to be rotated.

If the camera was at a right angle to the scene, simply go to Image, Rotate and select 90 degrees left or right, depending on which direction you wish to turn the picture. If the camera or scan was slightly askew, select Image, Transform, Free Transform and move your mouse outside the image until the cursor becomes a curved line: you can now rotate the picture as little or as much as you require. Alternatively, go to Image, Rotate and select Custom before entering the number of degrees you wish to turn the image. **Cropping and resizing:** It is unlikely that your image - whether from a scan or photograph - will need to select a particular colour and the crop be exactly the right size for your requirements, but to change the size of an image (for example, to reduce it for inclusion in a website) go to Image, Resize, Image Size and enter the new

dimensions for your picture. If you want to change the canvas of your image, perhaps to introduce a border around the photograph, select Resize, Canvas Size instead.

When selecting parts of an image, to remove unwanted detail or to focus on a particular section of a photo, select the crop tool from the Tools palette. With this tool you can select the portion of the image that you wish to keep and then double-click on the crop mask or go to

Levels and colour correction: Adobe Photoshop Elements provides a wealth of tools for correcting colour, contrast and brightness in your images, only a few of which we can cover here. If speed is of the essence, go to Enhance, Quick Fix. This displays a dialog box with oneclick access to the most common features you may wish to alter, such as brightness, contrast and colour correction. Auto Levels, Contrast and Colour Correction beneath the Quick Fix option will apply automatic enhancements.

To adjust the brightness and contrast interactively, go to Enhance, Adjust Brightness/ Contrast and use sliders to correct your image. Enhance, Adjust Lighting provides tools for correcting common errors such as backlighting and poor flash exposure.

Complex colour tools are provided under Enhance, Adjust Colour. Colour Variations is fun if you would like Elements to make automatic changes to your image, but Hue/ Saturation and Remove or Replace Colour offer more control over changes you make to your pictures. Colour Cast is an excellent tool: by clicking on an area of an image that should be white, black or grey, it quickly changes the overall colour tone of a photo.

Using masks: Sometimes you will not want changes to apply to the whole image, which is where masking (or marquee) tools are extremely useful. These are found in the top part of the Tools palette and include regular (rectangular and oval) marquees, lasso and brush tools for irregular selections, a magic wand when you tool. For the regular masks and lassos you can hold the mouse down on the Tool palette to change between the types of marquee.