

February -
March 2007

Volume 20

Number 1/2007

Founded 1987

In This Issue

Editor's &
Secretary's Notes

Vista Launch

Contact Details

Guidance Software
— EnCase

Buying or
Upgrading to a
New Computer

3 New Vista Books

Samsung MP3
Player

New Epson Printer

ROM is issued
six-times
a year to
members of the
Guildford PC
User Group
All Contributions
to the Editor
Tony Hawes
(details on page 2)

ROM

Newsletter of the Guildford PC User Group

Editor's Bit

Vista Launched with a WOW!

The Big Event of the last month was the launch of Vista and Office 2007 on 30th January. I attended the event, expecting that by the time this month's ROM was published I'd have been able to write about the improvements made to Vista since I carried out an in-depth trial of the Beta version, written up in a five-page fully illustrated spread published in the August 2006 issue of ROM and my demo of the main features of Office 2007 to the Group (July 2006). Attendees at the launch event were promised review copies of both Vista and Office 2007 so that the necessary reviews could be done, but although PC World, Dabs, Amazon.co.uk and nearly all the major suppliers were stacked to the ceiling with copies of Vista and Office 2007, Microsoft in their ivory towers at Thames Valley Park were unable at the time of writing to source review copies to journalists, an odd and pretty unique event in computer journalism! Anyway that's the reason why you are not reading about the capabilities of the release versions of these two Microsoft's major products. Perhaps



once Microsoft sort out their supply problems I'll be able to pen a meaningful comparison. Watch this space (and also see page 15 below!).

Bill Gates was in town for the London launch and an interesting launch it certainly was. It was held in the British Library at St Pancras in an auditorium packed with the press and others. The invite specified to be there promptly at 09.30, so it was a bit galling that at 10.20 we were still sitting in a semi-darkened auditorium listening to looping pop music.

Eventually Microsoft's UK CEO Gordon Frazer appeared, gave a brief introduction about Microsoft's aims and objectives in creating Vista, following which he introduced Bill Gates who stepped up to the lectern to give his keynote address.

Bill Gates

Gates said the launch was a 'special occasion', as it was only the second time the company has launched a new operating system and Office suite at the same time. It last happened twelve years ago with the launch of Windows 95. Harking back to those days Gates recalled 'In 1995, when people thought about personal

(Continued on page 2)

ROM is now only available as a full-colour .pdf download from the Group web page at:
www.guildfordpcusergroup.co.uk

**NEXT MEETING — Monday
12th February 2007 at 7.45 p.m.**

Digital Photography for the Enthusiast

John Childs, a committee member of the Farnborough Camera Club will talk about and demonstrate digital photography.

If you are an enthusiast come to learn something new. If you're a newbie to digital photography, here is the chance to watch and learn how to get the best from your digital camera from an acknowledged expert.

John will be available after his talk to answer your questions and impart his extensive knowledge of photography.

Chocolate biscuits, coffee and tea are free. Spread the word and please bring a friend.

**Meetings are held on the 2nd Monday
of each month at 7.45pm at the
Stoughton Youth Club and Community
Centre (opposite "The Royal" — Pub)
Worplesdon Road (A322), Guildford.**

Forthcoming Meetings

Monday 12th March 2007 at 7.45 pm
From VHS to DVD. A talk by Laurence Fenn illustrating the history of video formats from VHS in the 1970's to DVD's in 2007. He will cover both video and computer DVD applications

Monday 9th April 2007 at 7.45 pm
Annual General Meeting

Monday 14th May 2007 at 7.45 pm
In arrangement

CONTACT DETAILS

If you have any queries or questions about the Guildford PC User Group and its activities please contact the following members of the committee:

Chairman

Tony Wood
"Madrigals"
97 Broadhurst
Farnborough
Hants. GU14 9XA
Tel: 01252-549884
e-mail: tonywoodtw@ntlworld.com

Membership Secretary

Maxine Bushell
Tel: 01483 811908
e-mail: maxine.bushell@wanworld.co.uk

Treasurer

Francis Jacques
"Sampford", Elmstead Road,
WEST BYFLEET, KT14 6BJ
Tel: 01932 341888
e-mail: francis.jacques@virgin.net

Secretary & Public Relations

Bryce McCrerrick CBE
Surrey Place,
5 Coach House Gardens,
FLEET, GU51 4QX
Tel: 01252 623422
e-mail: b.mccrerrick@ntlworld.com

Web Master

Laurence Fenn
84 St George's Road,
ALDERSHOT, GU12 4LJ
Tel: 01252 330408
e-mail: laurence@orchardoo.com

Laurence's Web Page:

<http://www.orchardoo.com>
(this site contains many of the reviews that have appeared in ROM)

Group Web Page:

www.guilfordpcusergroup.co.uk

EDITOR

Tony Hawes
25 Folly Close, FLEET, GU52 7LN
Tel: 01252 617962
Fax: 01252 664756
Mobile: 07941 778007
e-mail: thawes@ntlworld.com

(Continued from page 1)

computers, they weren't thinking about photos, telephony, gaming, they were thinking about documents and emails. In Vista, we have taken things to a whole new level. 'It's about the digital work style and digital lifestyle. The way people buy and sell products, the way people use telephony; the way people use television, which now is not limited to broadcast channels. We're taking entertainment to a whole new level.

He talked about how he believes that Vista will be of great use for education whereby students can 'interact and share in different ways'. He went on about the 'ease of use' with Windows Vista and the built-in security features



Bill Gates at the London Launch of Vista

(such as parental control), better entertainment possibilities and overall how the 'The Digital Lifestyle' would improve our lives.

I expected Bill would do his keynote and then hand over to the presenters who would run though Vista and Office 2007, demonstrating the many new features and capabilities of these two programs, but no, curiously we were then subjected to a 25-minutes ping-pong spiel by Bill and Lynne Brindley, Chief Executive of the British Library, about how the British Library was digitising two Leonardo da Vinci Codices and how much better they would look if we viewed them via Vista. The Codices are notebooks containing Leonardo's jottings (one owned by Bill himself, which he bought at auction in 1994 (before Windows 95) for \$30 million). Once digitised these can be seen online by visitors to the British Library's web site. Then we were shown a short film about da Vinci, his manuscripts, and what several historians think of the involvement with Microsoft.

So far no demo of Vista. What's next? Unbelievably we are then subjected to a guest appearance by Dan Sells, lead singer with the pop group, "The Feeling." He picked up his guitar and strummed away as he warbled into the microphone. Quite bizarrely, this was supposed to show that music plays better if you have Vista installed, but how a solo performer singing into a microphone and amplified into speakers in

front of a live audience relates to Vista left me baffled.

So far we've had the best part of 45-50 minutes and still no Vista demo. After Sells leaves the stage, the printed program shows that we will at last be getting a demonstration of Vista and Office 2007.

Incredibly this demo will last only 15-minutes. Two enormous programs, the most important of which, Vista, has been five years in the making has to share a 15-minute demo slot with Office 2007. However this demo was done competently by David Weeks, Windows Client Marketing Manager UK, who some of you will remember came to the Group to demo Windows XP shortly after its launch back in 2001. His introduction covered the pretty new transparent and 3D Aero interface, showed how easy it was to create a slide show. Demonstrated the new search tool and showed how to format a Word document using the new Office 2007 ribbon interface which no longer has drop-down menus. And that was about it.

The next presentation was conducted by Cynthia Crossley, Windows Business Client Group Director with the help of Windows Client Marketing Manager Simon Darby. Together they showed how "third party" gadgets can be used in Vista.

These gadgets sit on the desktop and can be dragged onto the sidebar pane at which

stage they are available for immediate use. The demo showed how to use gadgets from 'partners' Franklin Covey, Universal Music (whose miniature player showed all the latest news and reviews from its artists as well as providing free streaming audio tracks and music videos). IMG Sports, ITN for news feeds, EasyJet for flight bookings, and the British Library for when you want to examine Bill Gates' da Vinci Codice.

One thing came out of Simon Darby's demonstration which I thought useful was the handwriting recognition technology built into Vista, and Simon showed how writing on a tablet PC connected to a Vista PC could be translated into a standard computer font — snazzy!

Having attended all the new Windows operating system launches since 1995, this launch gave me a jolt of *déjà vu*. It's hard not to believe that what was done at the Vista launch mirrored to some degree the launch of Windows 95 way back in 1995: The "Rolling Stones" appeared then, "The Feeling" in 2007; The revolutionary new Windows 95 graphical interface then, Vista's 3D Aero in 2007. The entertainment possibilities demonstrated by Edie Brickell singing "Good Times" in 1995, and the direct access to on-line music in 2007. One thing missing this time around was the free newspaper. For the Windows 95 launch Microsoft bought the whole print-run of The Times which was given away free.

If I have one criticism of what I saw at the launch, it

(Continued on page 3)

(Continued from page 2)

is that I saw too little of Vista's capabilities, which is a great pity. At one time Microsoft held reviewers workshops where the experts were on hand to give an in-depth exposé of all that was new, but sadly those days have long gone and we are expected to do our best to examine and explain applications from sparse and incomplete on-line manuals. Sadly, printed reviewer's guides from Microsoft, like 'Slattery's Mounted Foot,' are no more.

But take heart — later in this issue of ROM we examine three books that provide well-written guidance.

With Vista Here What Sort of Computer Specification will be Necessary?

Expect new computers to come with specifications that include at least a 300GB hard drive for storage and a full 2GB of RAM system memory, the short-term storage that gives the computer processor quick access to programs and data. Microsoft's view is that computer users using the Windows Vista Home Premium edition will need at least 1GB of memory to take advantage of all Vista's features; but more is better. Plus a souped-up graphics card (PCI bus and at least 256Mb of graphics memory). However if you're planning a computer using Windows Vista Home Basic, the cheapest and least featured version of Vista, you can get away with using just 512Mb of RAM.

My guess is that most budget PC's will now come with a full 1GB of memory, double the previous norm of 512Mb for entry-level computers, whilst for mainstream PCs 2GB of memory will be commonplace.

Processor-wise Windows Vista's features and requirements will help fuel the trend toward dual-core chips like Intel's Dual Core 2 Duo, which combine two microprocessors into a single integrated chip to boost computing performance and improve energy efficiency.

If instead of buying a new PC you plan to upgrade your existing computer to Windows Vista, you'll almost certainly have the hardware to run Vista in at least its basic mode as long as you bought your computer within the past two years or so. As evidence of this you'll recall that since Windows Vista Beta came out last summer I've used that and Vista RC1 to demo Vista's features to the Group on my 18-month old Acer notebook with no major problems, apart that is from the lack of drivers to support some hardware such as scanners and graphics cards etc. However, there is one caveat: some PCs that don't meet Microsoft's requirements won't get the "premium" Windows Vista experience, such as the translucent "Aero" appearance.

I have a feeling that most PC users won't upgrade that way. Instead, they'll get Windows Vista preloaded on a new computer

when it comes time to buy one. At the time of writing (late-January) getting a meaningful price on a new computer being sold with Vista already installed has been near impossible — all the ads show computers equipped with Windows XP Media Centre edition offering a free upgrade to Vista when it's launched on 30th January.

Time will tell, but PC makers and Microsoft are hoping that people will buy their new machines as replacements earlier, rather than later.

Secretary's Meetings Notes

Monday 11th December 2006

Microsoft Flight Simulator X. The meeting on Monday 11th December was in two parts. First Tony Hawes gave a short demonstration of the newly released version of Microsoft Flight Simulator X. At our September meeting he showed the capabilities of the limited trial version, which was on a free time restricted download. The latest version is a vastly improved product with a host of new features compared to "A Century of Flight" which came out in 2003. Tony described it in ROM December 2006 / January 2007. In his demonstration he showed short missions featuring a light aircraft, a glider and a helicopter. Perhaps the most obvious enhancements were the scenery, the showing of road traffic and the improved simulation of weather conditions.

Annual Xmas Quiz. The second part of the evening was devoted to our annual Christmas Quiz. As always Tony started by assuring everyone that this year it really would be easier by popular request. I am sure that at least some of us, no, most of us, were not of that view. It consisted of twenty written questions with four possible answers. While the papers were being market we had more Tea/Coffee and mince pies provided by the other Tony our chairman. To the delight of some and the embarrassment of others the results were announced. The winners were, 1st Paul Kuzmin, 2nd John Childs and 3rd Ken Kibbey. All contestant; I like this type of quiz, received super prizes kindly donated by Logitech, Microsoft, McAfee, Nuance (ScanSoft) and others to whom we are very grateful. A very good evening.

Monday 8th January 2007 - MP3 Audio Evening

On Monday 8th of January for our first meeting of the New Year we had a sound/audio evening presented by Tony Hawes. He started by discussing MP3 (Mpeg 1 layer 3). MP3 is a compression system and the one used in the popular iPod and other MP3 players. It can have a variety of compression ratios based on bit rates of between 32 and 320 Kbps. and was a result of work carried out for the development of the DAB broadcasting system. 320 Kbps represents basically no compression being applied, 192 Kbps very good quality and 128 acceptable. The sampling frequency can be 32, 44.1 or 48 KHz. with 44.1 being the most common. Tony demonstrated transferring a sound

track from a commercial audio CD on to his laptop using Windows Media Player and "ripping" this on to his Acer MP340 (similar to an iPod). The track was then relayed on to a number of speaker arrangements. Examples of tracks at 32, 64, 128 Kbps and 192 Kbps were demonstrated. Although accurate comparisons could not be made because of the acoustics of the room, the 192 Kbps sample played via the Logitech Z2200 with its hefty sub-woofer was obviously far superior.

A very small Logitech transmitter and receiver was demonstrated working on 2.4 GHz carrying the output from a MP3 player fed into the transmitter module, the transmitted signal being received up to 300 feet away by the small radio receiver which was connected to the amplifier of the Logitech speakers at the other side of the hall.

Another small transmitter was demonstrated, this time working on a number of frequencies in the FM/VHF band that allows an iPod or similar device to be relayed on to a FM car radio. This test involved the FM signal being received on Tony's portable FM receiver which again was at the far end of the hall. Such a low-power FM transmitter device only became legal a few weeks ago in early December 2006.

Overall, considering the size of the players, transmitters and receivers, the quality was surprisingly good. A dedicated audiophile would probably consider the sound not of the quality he would expect from a dedicated and expensive HiFi, but considering the cost of the products shown and from comments made after the demo, many of those present thought the demonstration provided a welcome introduction into the possibilities of using MP3 players in alternative and different ways, rather than just hearing them through a set of ear-buds stuffed into ones' ears.

We had a very interesting evening

2006 News Stories that Your Editor has Seen

Enter stage left, an anonymous heavy smoker who has just pocketed £44,000 for "hurt feelings" after being criticised over her unhealthy habit by a doctor. If I tell you that the doctor was an anaesthetist and the heavy smoker was a pregnant woman who was just about to be put under for a caesarean operation when she nipped out for a drag, you'll probably start banging your head against the wall.

And why not give a big hand for postman David Portman, who's trousered ten grand for unfair dismissal for taking 137 days off sick over a five-year period, the most recent being a week away from work to recover from the death of his dog. And you wonder why your birthday cards don't turn up until teatime?

Did you read that Wolverhampton City Council has just introduced special Thursday evening swimming sessions for black and Asian people only. Special lifeguards and instructors man the pool for the hour-long

(Continued on page 4)

(Continued from page 3)

sessions and individual blinds have been put up to shield swimmers' modesty.

Now I accept that some Asian people might not like being looked at while wearing their swimming cossies, but frankly that's just tough. Perhaps Mrs White woman is a bit shy of leering men as well, but she just has to get on with it. This kind of officially sanctioned segregation does nothing but create more divides — another ghetto, albeit an aquatic one. What next? Asian-only buses? Black-only restaurants?

I can only see the furore if it was suggested that whites-only swimming sessions were to be promoted in your local pool.

Christmas Stories

Well we had Christmas, and the season of goodwill to all men, but not much of a holiday for the killjoys, they were out in force. They sprang into action in North Yorkshire, where a chap who wanted to organise a Christmas do at the village hall was told that he must display posters warning that the mince pies might contain suet or nuts and that the cocoa content and temperature of his hot chocolate must also be checked. Then they were off to Anglesey in Wales to ruin the Christmas of elderly patients in a hospital in Holyhead.

In this instance they instantly banished the patients' own portable television sets from the wards because "someone might trip over the wires". Cases to date of people tripping over the wires in the past 10 years — zilch.

The mostly bed-bound patients have been allowed to bring in their own tellies and DVD players since the unit opened, but a snap inspection by Health and Safety storm troopers just before Christmas led to the poor old things being unable to watch Pauline keel over in EastEnders or Corrie's David Platt (surely the Devil Incarnate) lay waste to Gail and Sally's perfect Christmas. So it's not all bad news then ...

Taxes

And a railway accident is what we appear to have suffered as the government's recent scaremongering over road-charging and the impact of short-haul flights on the environment smacks straight into the buffers of ridiculous rail fare increases imposed, in part, to reduce demand.

So there we have it. We are told not to drive or we'll be taxed. We are told not to fly or we'll be taxed. But if we take the train, we'll have to pay through the nose ... because the trains are too busy. You really couldn't make it up.

And where is all the revenue from these extra "environmental" taxes going? Well not into stopping global warming, that's for sure. It would be like King Canute trying to hold back the tide. And there are only so many forests you can plant and so many igloos you can build for homeless peniguns. So hey, why not spend it on the local

government Turkey Army instead? At least that way the government can prolong the hope that they might get re-elected by the jobsworths whose mortgage depends on their patronage.

"People like who?", I hear you ask. Well, people like the Arts Council's Cardboard Citizens Managing Director (£45,000), the Civil Resilience Manager at Stockport Council (£39,132), the Detached Mobile Youth Provision and Rapid Response Manager in Islington (£40,578) and the Sustrans Bike It Officer — whatever that is (£23,000).

These are some of the more modest positions advertised in the pages of the Guardian in 2006. And now, thanks to a body called the TaxPayers' Alliance (TPA) we now know that the average starting salary for a local government civil servant is £36,893 a year, an astonishing £11,405 higher than the average private sector wage.

Stupid Job Titles

Whilst we're talking of jobs, here are a selection of the most stupid titles advertised. And while the pompous-sounding descriptions might raise a smile, just remember that YOU are picking up the tab...

- Assistant Director, Well-Being and Community Services (Hampshire County Council). Salary: Up to £85,000.
- Programme Manager for National Supporting People Value Improvement Programme (Department of Local Government). Salary: Up to £53,144.
- Group Manager, Assessment and Care Management (Scottish Borders Council). Salary: Up to £42,024.
- Strategic Director, Children and Young People (Halton Borough Council). Salary: £100,000.
- Civil Resilience Manager (Stockport Metropolitan Borough Council). Salary: £39,132.
- Diversity Programme Manager: Children's Services (London Borough of Redbridge). Salary: £39,126.
- Strategic Leader, Partnerships and Participation (Leeds City Council). Salary: £60,000.
- Cardboard Citizens Managing Director (Arts Council). Salary: £45,000.
- Detached Mobile Youth Provision And Rapid Response Manager (Islington Council). Salary: Up to £40,578.
- Diversity and Inclusion Manager (Qualifications And Curriculum Authority). Salary: £38,000.

Other Batty Job Titles

Other batty job titles spotted by the TPA included:

- Floating Support Services Deputy Manager
- Equality And Diversity Service Equalities Project Officer
- Head Of Achievement And Inclusion

- Play Development Officer
- Welfare Rights Outreach Adviser
- Stop Smoking Community Worker
- Culture Officer
- Head of Regulation
- Project Officer, Overcrowding Project
- Strategic Leader, Partnerships & Participation
- Bike It Officer
- Creative Community Engagement Officer
- Jewellery Project Administrator
- Land Registry Head of Diversity
- Community Development Worker For Breastfeeding
- Senior Social Worker Within The Assertive Outreach Team.

Royalty Gets into the Act

Prince Charles is Green. Or so Clarence House says. To show his green credentials the prince quietly cancelled his annual skiing trip to Klosters to cut greenhouse gases. The decision was taken as part of the Prince's pledge last year to reduce his carbon footprint. The prince who has described climate change as the "biggest threat to mankind", made the decision in accordance with his announcement last year that he would publish details of his own carbon footprint — a measure of how his activities have had an impact on the environment — in his 2007 accounts.

"He is reviewing all areas of his life which involve travel. He is thinking carefully about all his engagements."

He obviously didn't think hard enough because shortly afterwards he announced plans to fly to America at taxpayers' expense to pick up the Harvard Club's Global Environmental Citizen Award, an environmental award.

The Prince, the Duchess of Cornwall, and their 14-strong entourage flew to Philadelphia and New York, to collect the award from the Hollywood actress Meryl Streep and Al Gore, the former US vice president and presidential candidate. So next time HRH opens his mouth to say how green he is, take it with a pinch of salt.

Sports Personality of the Year

Then we had Princess Anne's daughter, Zara Phillips being chosen as the BBC's Sports Personality of the Year.

Were you as astonished as I was by the wry grin on Lord Coe's face as he opened the envelope and read out her name as the Sports Personality of the Year? To see her hailed as epitomising the pinnacle of achievement in British sport was awful and thoroughly disheartening.

OK, she is a world and European champion in her field (Eventing) and that is an indication of her obvious capabilities as a rider. She seems remarkably unspoiled too, considering her royal background. But I'm not convinced that acknowledging her talents with this award

(Continued on page 15)

Guidance Software — EnCase

Your editor attended an event in London last year organised to show off the capabilities of Guidance Software's computer forensic software application called EnCase.

EnCase, is a widely used suite of programs that can dig deep into the memory of everything from computer hard drives to MP3 players. The next generation should even be able to search mobile phones. Through its consulting arm, the company also trains more than 3500 law enforcement officers each year. As witness to this, Lord Stevens, former head of the Met Police hosted the event and among the delegates to whom I chatted were a fair number of specialist police officers from Scotland Yard, other law-enforcement agencies and the MOD, all who use the program on a regular basis.

Guidance provided links to a case study which shows the methods used by law enforcement officials to solve crimes with the aid of EnCase. It's written by Americans so allow for the trans-Atlantic twang to the article, but otherwise is a good read of computer forensics in action.

Digital Detectives

Hidden folders, "deleted" files and internet caches hide clues criminals never knew they left behind

The night Cindy M. (Not her real name) disappeared, she ate dinner with her parents and older brother in the family's two-story suburban Pittsburgh home, then went to her room and promised to come back for apple-walnut pie. The pretty 13-year-old with dark blond hair and blue-green eyes never returned. When her parents checked her room, they found neither a note nor a sign of forced entry. It was New Year's Day, 2002, and their daughter was simply gone.

Pittsburgh police spent almost two days interviewing Cindy's friends and family, while neighbours scoured nearby fields and gullies, but everyone came up empty. When FBI special agent Denise Holtz took over the case, late on Jan. 2, the investigation had barely moved beyond square one.

This is what Holtz knew: Cindy was a shy child who wrote poetry and frequently made the honour roll. She was rarely in trouble. She could have run away, but she left her coat hanging in the closet on one of the coldest nights of the year. Only one titbit seemed promising: Friends said Cindy frequented Internet chat rooms.

A six-year veteran of the Crimes Against Children Task Force, Holtz suspected the answer to Cindy's disappearance was hidden within the girl's upstairs computer. She also knew that it might already be too late. If Cindy had fallen into the hands of a killer, the statistics were grim: 74 percent of abducted children who are murdered are dead within 3 hours.

*Not her real name

"We knew that time was ticking and we couldn't sleep until we found her," Holtz says. She turned to FBI forensic examiner Tony Pallone, one of the bureau's computer specialists, and asked him to drop all other projects until he found something in the machine that could lead them to the missing girl.

Pallone made a forensic image of Cindy's computer hard drive and settled in for a long night. He then ran a program that analyzed the image—yielding thousands upon thousands of numbers and letters scrambled together, amounting to little more than gibberish to the untrained eye.

Cindy's personal Web page

From Cindy's personal Web page, Pallone knew she called herself "goddessofall" and listed among her interests' witchcraft, hypnosis and mythology, so he searched the data for snippets of those words hoping to discover other clues amid the jumble of characters. He found some troubling information: "File residue" logs showing the computer's recent activities revealed that Cindy visited chat rooms dedicated to sadomasochism. Potentially worse, Pallone deduced from the gibberish that she chatted frequently with someone going by the ominous screen name of "dcsadist." Pallone searched the Internet for references to anyone using that name but nothing surfaced.

By the evening of Jan. 3, Cindy's parents began to lose hope that she would be found alive. "You know the statistics," the girl's mother later told Newark, N.J.'s Star-Ledger. "It's a one-in-a-million shot to see your child again."



Cyber sleuths: FBI computer forensic examiners Tim Huff (left) and Tony Pallone unlock the secrets inside hundreds of computers each year.

Pallone is an examiner in the Pittsburgh FBI office's computer forensics lab. The operation is a small-scale version of the FBI's 10 multi-agency Regional Computer Forensics Laboratories (RCFLs); two more are slated to open this year. The FBI pro-

vides the RCFL start-up costs—about \$3 million per lab—and state and local agencies contribute staffers certified in computer forensics. As cases come in, examiners pitch in on those with the highest priority, regardless of which agency owns jurisdiction.

All told, 200-plus examiners at RCFLs and other FBI teams across the country analyzed more than 1400 terabytes of data in 2005—equal to a stack of paper 47,000 miles high. This new breed of gumshoe, trained to study bytes the way old-school G-men studied fingerprints, snares a predictable cast of hackers and insider traders but also a surprising number of violent criminals.

Computer forensics is not only crucial to law enforcement, it is critical to the business world, where digital evidence-gathering tools are used for everything from fraud investigations to employee monitoring. And government computer investigators buy much of their software from the same commercial vendors that supply big business. The dominant player in the field is Pasadena, Calif.-based Guidance Software, makers of EnCase, a widely used suite of programs that can dig deep into the memory of everything from computer hard drives to MP3 players. The next generation should even be able to search cell phones. Through its consulting arm, the company also trains more than 3500 law enforcement officers each year.

"A computer is no different than a tape recorder—it records everything you do," says Andy Spruill, who oversees the consulting division and works as a lead investigator with the Westminster, Calif., police department's computer forensics unit. "Right now [computer forensics] is still a specialty, with few people having the skills and resources to do it," he says. "Think about where DNA was 10 years ago. Most cops didn't even know about it. Now most patrol officers carry DNA swabs. That is where [computer forensics] is going to go, to the patrol level."

"It is unusual today to have a case that doesn't involve computers," explains Mary Beth Buchanan, U.S. attorney for the Western District of Pennsylvania. She adds that computers are not just a source of evidence, but a source of better evidence. "Through the use of computers, people store information they might not otherwise. They might not even know it is being stored," Buchanan says. "The value [of the evidence] is also greater because that information is stored in an organized manner and the computer leaves footprints of an individual's every action."

In 2003 Kansas State University English professor Thomas Murray's computer turned into a witness against him. For more than a year, local police suspected Murray in his ex-wife's stabbing death, but it was not until examiners in the Kansas City, Mo., RCFL searched his office computer that they found damning evidence. In the months before his

(Continued on page 6)

(Continued from page 5)

wife's death, Murray had used such Internet search terms as "how to kill someone quietly and quickly" and "murder for hire." A jury rejected Murray's defence that he was researching script ideas for a television show such as CSI and sentenced him to life in prison.

The new breed of gumshoe is trained to study bytes the way old-school G-men studied fingerprints.

The most famous case cracked using the skills of computer forensics investigators is last year's capture of the serial killer known as BTK, short for "Bind, Torture and Kill."

Responsible for 10 murders around Wichita, Kan., between 1974 and 1991, BTK taunted police with letters that boasted of his deeds but yielded few clues to his identity. He resurfaced in 2004 with a letter to a local newspaper hinting that he might be plotting more murders.

In February 2005, Wichita television station KSAS received a translucent, purple floppy disk accompanied by a 3 x 5 index card with a message from BTK: "Any Communications will have a # assigned from now on, encase [sic] one is lost or found."

The BTK task force enlisted the expertise of Randy Stone, a 39-year-old Desert Storm vet who started in the Wichita police department's Forensic Computer Crime Unit in 1998. When Stone checked the disk, it contained only one file, named "Test A.rtf." The text of the file instructed investigators to read the index card. No clues there.

Stone checked the disk properties to see the previous user: someone named Dennis. Then he checked to see where the disk was last used: Wichita's Christ Lutheran Church. On the church Web site's list of officers, there was one Dennis, a man named Dennis Rader.

DNA Evidence

The police used DNA evidence to link Rader to the crime scenes and in August 2005 he was given 10 consecutive life sentences. After more than 31 years and 100,000 man-hours, Stone's digital detective work cracked the BTK case within 15 minutes of receiving the disk.

"On a scale of one to 10, it was about a three in terms of computer forensics," Stone says. "As simple as that was, the sad thing is 95 percent of law enforcement in the U.S. could not have done something like that."

Late on Jan. 3, 2002, as Pallone toiled away in his lab, investigators looking for Cindy finally caught a break. An anonymous Tampa man contacted the FBI and said he might know something about the girl he'd seen in a missing child photo on the Pittsburgh Post-Gazette Web site. The tipster said he met a man in a bondage group online claiming to have captured a teenager. "I think I got one," the man wrote the tipster in a message, showing video of a girl chained to a wall, crying. The tipster thought the man lived in northern Virginia and used the screen name "master for teen slave girls."

Pallone's co-worker, Tim Huff, arrived at the office around 8 am, just as the tipster gave up the screen name. Of his six years as a field agent, Huff has spent five working in computer forensics. "I like putting bad guys in jail, that's why I got into the bureau," Huff says. "I got into computer forensics because I like solving puzzles."

Four others in the lab were pulled onto the case to join Pallone in searching chat groups and elsewhere around the Web for anyone using that screen name. Even with the new information, they were still searching 90 minutes later.

Maybe, Huff thought, the name was not "master for teen slave girls," as the original agent wrote it down, but some derivative using Web shorthand. Team members began to search for variations on the name and, within minutes, one of the examiners found a Yahoo Chat profile for a suspect using the

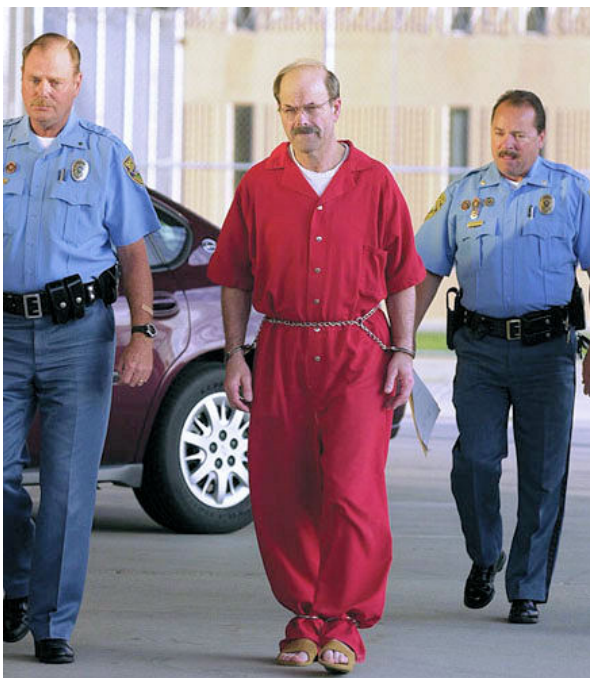
holding Cindy. But the profile didn't say where he lived.

Holtz tried to contact Yahoo to get the Internet protocol (IP) address of the profile, but it was 6:30 am at the Yahoo corporate offices on the West Coast and she couldn't get anyone on the phone. Eventually, an agent in Sacramento, Calif., was reached, who called a contact at Yahoo. Minutes later, Holtz faxed a letter to Yahoo asking for the IP address, citing Section 212 of the Patriot Act.

Prior to the Patriot Act, which was passed in October 2001, many corporations required search warrants or subpoenas before granting government requests for customer information, mainly to shield themselves from lawsuits. But Section 212 releases companies from civil liability in cases where someone is at risk of "immediate danger of death or serious physical injury." This case was one of the first times the provision was used.

Around 11 am, Yahoo faxed the Pittsburgh lab the IP address. A quick search identified Verizon as the service provider. Thirty minutes later, Verizon told Holtz the name and address of the customer registered to the account, a 38-year-old Herndon, Va., man named Scott William Tyree.

With Tyree's address confirmed, Holtz contacted the Washington, D.C., field office, which dispatched a team of agents to Tyree's home. Cindy had been missing for almost three days; now Holtz, Huff and the rest of the Pittsburgh office could only wait nervously for word of her fate.



Digital evidence helped the FBI find Dennis Rader, aka the TK killer (left above) and Scott William Tyree (right).

handle "master4teen_slavegirls." In his profile, the man listed other online aliases, including "dcsadist."

Breakthrough

It was a huge breakthrough—they quickly matched the information from the girl's computer with the tipster's information, making it a near certainty this was the guy

At Tyree's suburban townhouse, agents burst through the front door with guns drawn. The house appeared to be empty until they found Cindy in an upstairs bedroom, collared and chained to a bolt in the floor. The chain was just long enough to allow her to go to the bathroom. Tyree, it turned out, had reported to

(Continued on page 7)

(Continued from page 6)

work at a nearby office of Computer Associates, but not before warning Cindy that he would hurt her if she tried to escape.

By 3:30 pm, the investigators at the Pittsburgh RCFL received word: Cindy was safe. Holtz, a six-year veteran of the bureau, didn't try to hold back her tears. Still sniffing, she walked to a nearby conference room to give Cindy's family the good news.

Tyree was picked up less than an hour later at his office. He had no criminal record and exhibited few previous signs of

being a sexual predator. He was twice divorced and maintained a good relationship with his only child, a 12-year-old girl who lived with her mother in California. Tyree's daughter had reportedly stayed with him for most of December during school break, returning home on New Year's Day—the same day Cindy disappeared.

In subsequent interviews, investigators determined Cindy was like many teenagers who get involved in dangerous role-playing on the Web and draw the attention of predators like Tyree. On New Year's Day, she sneaked out of the house and met Tyree a few blocks away. By the time Cindy real-

ized the true intentions of her captor, it was too late to escape. She now speaks to student groups about the dangers of the Internet.

Buchanan, the lead prosecutor, says further evidence obtained from Tyree's computer by Huff and his staff was instrumental in building her case and forcing Tyree to plead guilty. In March 2003, he was sentenced to nearly 20 years in federal prison.

More than three years later, Huff says it remains one of his most rewarding cases. "There is very little that I have experienced that makes you feel as good as knowing you made a child safe," he says.

Buying or Upgrading to a New Computer

By Geoff Arnold

Buying or (Upgrading) to a New Computer

As usual at this time of year it's time to offer some views as to what to look for when considering buying new or (upgrading) a computer.

Relax

You can finally relax when buying a personal computer. Because the costs of processors, memory, storage and screens have hit bottom over the past year (what's new I hear you say because at the end of each year the price you are likely to pay for a new computer will be considerably less than what it was twelve-months earlier), it's now difficult to buy a new, name-brand computer that isn't more than adequate for checking your e-mail, browsing the Web, writing letters, listening to music and losing the occasional game of Solitaire and all for less than £500.

Don't Relax

Then again, you can't relax. Manufacturers still exhibit a single-minded focus on processor speed at the expense of more important components, pushing systems with three-gigahertz chips and a scant 128 megabytes of memory — the equivalent of a 300-horsepower Ferrari with a two-gallon petrol tank.

Don't be Fooled by the ads

To judge from the details in the average computer advertisement, you'd think these things were manufactured according to a Ministry of Defence (Procurement Executive) specification:

Intel Core 2 Duo E6600 Processor, (2.40GHz, 4MB L2 Cache, 1066MHz), ASUS P5N-E SLI nForce 650i Mainboard, 2048MB 667MHz DDR2 Memory, 320GB Serial ATA Hard Drive, 256MB nVIDIA GeForce 7950 GT - Dual DVI, 19" Sony LCD TFT Display (DVI, 8ms) Sony 18x Super Format DVD Writer, Sony 16x DVD-ROM Drive (40x CD-ROM), Creative SoundBlaster X-Fi Xtreme Audio, 7.1 Speakers & Subwoofer, 6 USB, 2x Firewire, GB LAN.

This sort of jargon attempts to distract the

General Requirements for a Modern Computer	
Using the Internet	For a dial-up connection: A modem, preferably one that supports 56Kbps connections. For a broadband connection: A cable or ADSL modem.
Networking	For a wired connection: A network adapter, preferably one that supports Fast Ethernet (100Mbps) connections, a network switch or hub, and network cables. For a wireless connection: A wireless adapter that supports IEEE 802.11g and a wireless access point.
Photo editing	A USB slot for connecting the digital camera. If you want to transfer the images from a memory card, you need the appropriate memory card reader.
Printing	A photo ink jet printer for photo printing or a laser printer if you don't need to print colour photos
Document scanning	A document scanner or an all-in-one printer that includes scanning capabilities.
Input	A keyboard and mouse
Ripping and burning CDs	For ripping: A CD or DVD drive. For burning: A recordable CD drive.
Burning DVDs	A recordable DVD drive.
Video editing	An internal or external video-capture device or an IEEE 1394 (FireWire) port.
Videoconferencing	A webcam or a digital camera that has a webcam mode.
Listening to digital audio files	A sound card or integrated audio, as well as speakers or headphones. For the best sound, use a subwoofer with the speakers.
Listening to radio	A radio tuner card.
Watching TV	A TV tuner card (preferably one that supports video capture). A remote control is useful if you are watching the screen from a distance.

buyer from a plainer truth — with a few exceptions computers these days are largely commodity products, built from third-party components and stuffed with mostly identical programs. Nearly all of those programs, in turn, have no need for the fastest processor around, or even the 5th-fastest. As to general requirements for a new computer see above.

Don't Fall Into the Trap

Finding a computer that works for you without falling into the faster-is-always-better marketing trap takes some preparation. The first step is to forget about the false economy of the very cheapest models. Contrary to what you might deduce from the entry-level offerings of Dell, Evesham, Mesh, Apple, Siemens-Fujitsu and others, a computer needs only the following for the vast majority of consumer uses.

Basic Requirements

- A 160-gigabyte hard drive.
- 512-megabytes (512Mb) of memory (RAM)
- a DVD / CD-RW drive
- a Graphics card (although many entry-level computers come with shared graphics from a chip on the motherboard)
- a modem
- a monitor
- keyboard and mouse
- and an entry-level operating system — currently Windows Vista Basic

You need the drive space because it will get eaten up faster than you think and it's a pain to add more; you need the memory to run Windows XP and Vista, or Mac OS X comfortably; you need the DVD/CD-RW to copy and move data out of the computer (the floppy

(Continued on page 8)

(Continued from page 7)

drive's utility ended several years ago; and many manufacturers leave it out of their default configurations, for moving data in and out of the computer a USB2 memory stick is an adequate alternative to the CD-RW), and you'll need the modem for connection to the internet.

Other features fall into the category of Good Things to Have but aren't quite essential. Having superseded CRT monitors, flat-panel LCD monitors are now almost universal. LCD monitors need less space, they use less power and won't flicker. A 17" LCD monitor can cost as little as £100. More USB ports are always good. The mouse should use an optical sensor, not a mechanical mechanism that needs regular cleaning, and ideally both it and the keyboard should connect via USB, for maximum convenience.

Internal expansion slots and drive bays, on the other hand, are likely to go unused unless you're the tinkering type, while serial, parallel and PS/2 ports are assuming the status of being 'unnecessary and unfashionable' legacy items unless you collect antique hardware, although that being said, the motherboard on my newly built computer has all three of these ports, and whatever anyone else says I prefer the PS/2 ports for my mouse and keyboard connections.

Remember that the computer you already own, if it's less than three years old, may only need a memory transplant/upgrade to make it act livelier. I adhere to a Rule of Four Law — which goes like this: "If you find yourself with a desktop that is four years old or more, or you're going to replace four or more components, it's time to get a new system."

There is a similar timetable involved when dealing with laptops. After about a year you should look into upgrading your RAM if you are not at 1GB already. Two years on, your battery may be starting to give out, and if you need a larger hard drive, it's time to replace the laptop.

The Essential Question — What Do You Want To Do With The Thing? — If you do choose to spend money on a new computer, how much you buy beyond the basics depends on your answer to one simple question: "What do you want to do with the thing?"

If You Just Want to Get on The Internet

If you just want a computer to get on the Internet, just about any hardware sold today will do. The software on any given machine, however, is another issue. Far too many Windows users have been plagued by viruses, worms and spyware to pretend that both Windows or Mac OS X are equally suited for general Internet use — they are not. Visual preferences or initial hardware costs notwithstanding; currently life is simply easier on the Mac side. The enhanced

security built into Windows Vista has yet to be tested by the general public, but Microsoft in their pre-release publicity say Vista does redress some of the basic criticisms about the security of earlier versions of Windows.

Using a Digital Camera

If you plan to use a digital camera, upgrade to 1024Mb of memory, a 300GB hard drive, a larger screen, a decent photo editing suite and of course, a good printer. A computer with one or more memory-card reader slots will simplify moving photos to the computer, since these slots work faster than the specialized, fiddly and easy-to-forget cables that come bundled with cameras. At the very least, make sure the computer has a USB port at the front where you can easily reach it.

Music Collector?

If you want to build and use a music collection on your computer, pick up some good speakers (subwoofers aren't strictly necessary and surround-sound systems are a waste — but see later). A conveniently located front panel USB 2.0 or FireWire port will make it easier to load music to a portable music player, and a fast CD-RW drive means less time spent waiting for a CD to finish writing (look at the first figure in the usual "52x10x32" notation in the adverts — in these circumstances higher is better). Microsoft's Windows Media Player is good and free, whilst Apple's computers ship with excellent music software in the form of iTunes; most PCs offer inferior options, but you can always download the Windows version of iTunes for free should you wish.

Movie Making

If you plan to make your own movies, then you actually will need a fast processor because editing, rendering and encoding video are among the few tasks these days that make the fastest of chips squeak. You'll also need a FireWire port (also labelled as "1394" or "i.Link") to connect a digital camcorder and will need a DVD-recordable drive. Both DVD-RW and DVD+RW drives will burn DVD movies that can be watched in most new domestic DVD players, but remember DVD+RW is better for data use — something to think about when you back up all those digital photos and music files. Dual-layer DVDs are now fairly common and offer the ability to save up to 8.5GB of data on one DVD. DL-DVD+RW drives are not that much more expensive than single-layer drives, so to future-proof your investment, specify a DL-DVD RW in a new computer or upgrade.

Movie Making & Hard Disks

Think of having a 300GB hard drive as a minimum and as I've realised with my video editing efforts nothing gobbles up hard disk space quicker than digital video; at 200Mb for every minute of video, this

means you'll need around 12GB of space for every hour of footage. My advice — think big and plan for a 300GB HD at least. The basic rule-of-thumb with Movie Editing is to buy as much disk space as you can afford because you'll need every Gigabyte. If you're really stuck for space consider an external 400GB drive with a FireWire connection, they are relatively cheap (£100 – £120) and can double as a medium for data back-ups. Another feature to be considered with Movie making is that the new dual-core chips from both AMD and Intel can reduce considerably the time needed to render your finished movie masterpiece.

Software

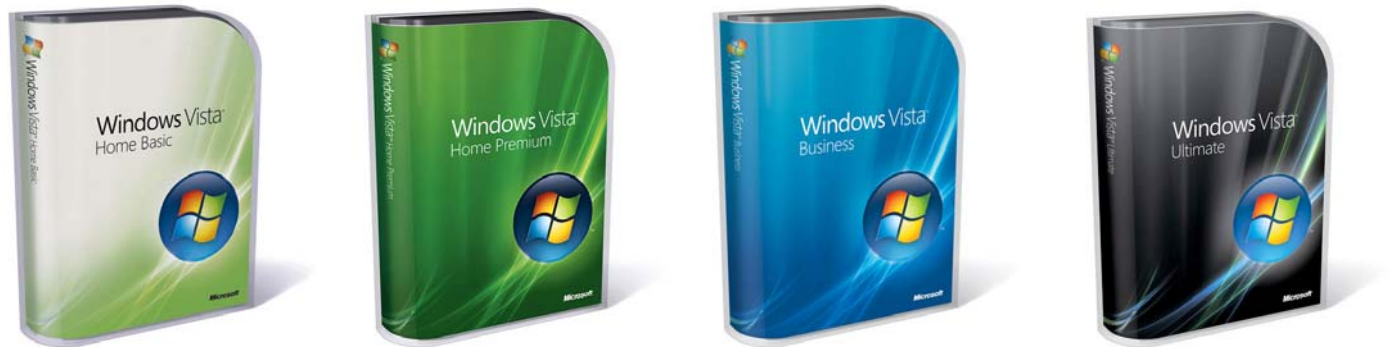
Bundled software is usually a disappointment, but if you can get a full office suite from Microsoft instead of the usual Microsoft Works, you'll be ahead of the game (Works 2006 is good and comes with a bunch of applications, but the included word processor is Word 2002 which is now relatively long in the tooth). A better alternative is Microsoft Office Student and Teacher Edition 2003, which includes Word 2003, Excel 2003, Outlook 2003 and PowerPoint 2003, this suite can be bought for £77 inc VAT from Amazon.co.uk. Most new computers and some peripherals come bundled with CD/DVD burning software in the form of Nero and sometimes you'll find software for playing your DVDs, editing your MP3 collection and photo-editing software included too.

Games

If you want to play games, you're in for it — games demand a considerable, ongoing investment, especially such resource-ravenous titles as Half-Life and Doom, Flight Simulator X also makes demands, but not as much as the first two titles. All three demand Windows XP as a minimum, the operating system for which most PC games are released. Comparisons and reviews of games software running on pre-release versions of Windows Vista show useful gains in performance. Graphics and audio cards are just as important. Graphics cards (accelerators) now almost universally demand a motherboard with a PCI graphics slot. AGP graphic cards, so popular a few years ago are now almost legacy items. PCI graphics cards with 128Mb of video memory should be considered a practical minimum, 256Mb of video memory is far better and 512Mb better still, but currently graphics cards with 512Mb of memory are relatively expensive. For the dedicated gamer two graphics cards in SLI Configuration are the best, but this is very expensive option. It's also necessary to budget for a multi-channel sound card, preferably one that can be upgraded later on; audio CDs don't come in surround sound, but many games do, which means that surround-sound speakers are a must for maximum game enjoyment.

If the cost of all this winds you up, remember: Nobody stopped you from buying a PlayStation 3 or an Xbox 360 which are dedicated to the needs of gamers!

(Continued on page 9)



(Continued from page 8)

Operating System Software

On 30th January 2007 Microsoft launched the consumer editions of Windows Vista so let's remind ourselves of what your Editor said when he carried out an in-depth review of Windows Vista (Beta 2) in last August's in ROM.

Windows Editions

For many years, the Windows world was divided into two camps: the so-called "consumer" editions—Windows 95, 98, and Me — aimed at individuals and home office users, and the "business" editions—Windows NT and 2000 — aimed at the corporate market. With the release of Windows XP, Microsoft merged these two streams into a single code base. However, that didn't mean the end to having multiple editions of the operating system. In fact, XP ended up with six major editions: Starter (for users with low-cost PCs in emerging markets in the third-world), Home (individuals), Professional (corporate users and the SOHO users), Professional x64 (the 64-bit version for power users), Media Centre (multimedia users), and Tablet PC (with digital pen support for Tablet PC users). Many people found the existence of so many versions of XP baffling and defining the relatively subtle differences among the editions was confusing.

Given this widespread confusion, you would think that Microsoft would simplify things with Windows Vista. After all, a case could be made that the reason so many people did not upgrade to XP was that they simply were not sure which edition they should purchase. Therefore, no one would blame you for thinking that the road to Vista is going to be straighter than the twisting XP path.

Windows Vista Versions

In the end, Vista has shipped with the same number of versions as XP — six in all — although Vista's versions are configured completely differently than XP's. First, the home market has two editions:

Windows Vista Home Basic — this edition is the simplest Vista option. The Home Basic Edition is aimed at individuals using their computer at home who want security without complexity. Home Basic includes Windows Defender, Windows Mail with its antispam features, Internet

Paul Thurrott runs an extremely useful Windows site which I visit regularly to get news of 'What's New' with Windows, so I was rather amused to read what he said on launch day about the many versions of Windows Vista.

"Simply counting the number of Vista versions Microsoft is currently selling is an effort in futility. Sure, there's Windows Vista Starter, Vista Home Basic, Vista Home Premium, Vista Business, Vista Enterprise, and Vista Ultimate. But there are also the so-called N versions of Vista Home Premium and Vista Business in the EU (where, I believe, "N" stands for "no one is interested"). There are separate Upgrade and Full versions of Vista Home Basic, Home Premium (and Home Premium N), Business (and Business N), and Ultimate. And though Vista Ultimate includes both 32-bit and 64-bit media in the retail box, Vista Home Basic, Home Premium, and Business all ship in separate 32-bit and 64-bit versions as well. Are there separate 32-bit and 64-bit Upgrade and Full versions of these products? You know, I'm not sure.'

'Businesses, by the way, qualify for volume licensing. There are numerous prices, and yes, it's always cheaper if we can convince you to buy right away. Volume license customers qualify for their own versions of Vista Home Basic, Home Premium, Business, Enterprise, and Ultimate. Vista Enterprise has one almost assuredly useless but unique feature: With that product, you can install up to four more copies of Vista Enterprise in virtual machines. There's just one hitch: They all have to be running on the same PC, the one that's running that first version you bought.'

'And let's talk OEM versions for a bit. Online retailers are selling low-cost OEM versions of Windows Vista Home Basic, Home Premium, Business, and Ultimate. These products are identical to Full retail versions of Vista, but come without documentation, retail packaging, support, or, as it turns out, the humongous price tags.'

Explorer 7 with its anti-phishing features and protected mode, the improved Windows Firewall, the revamped Security Centre, and Vista's enhanced parental controls. It also features Windows Media Player 11, Windows Movie Maker, Windows Photo Gallery, Windows Calendar, Windows Sidebar, Windows Search, the Games Explorer, partial support for the Mobility Centre for notebook users, and basic networking (wired and wireless). However, Home Basic does not support the new Aero shell.

Windows Vista Home Premium — This edition includes everything in Home Basic, plus the Aero shell, Media Centre, support for Tablet PCs, Windows Collaboration, Windows DVD Maker, scheduled backups, and advanced networking capabilities (such as ad hoc peer-to-peer networks and multiple-machine parental controls). This edition is aimed at networked household, multimedia enthusiasts, and notebook users.

The Business Market — Two Editions:

Windows Vista Business — This edition is analogous to Windows XP Professional and includes the same corporate features as XP Pro: support for domains, multiple network protocols, offline files, Remote Desktop, file and folder encryption, roaming user profiles, and group. Vista Business also comes with the Aero shell, Internet

Information Server, Windows Fax and Scan, support for Tablet PCs, and the full Mobility Centre. This edition does not come with Media Centre, Movie Maker, and DVD Maker. In short, it's a no-nonsense OS for the business professional.

Windows Vista Enterprise — This edition is optimised for corporate desktops. It includes everything that's in the Vista Business edition, plus features such as Windows BitLocker (drive encryption for sensitive data), Virtual PC Express, Multilanguage User Interface (MUI), and Subsystem for UNIX-Based Applications (SUA). It also allows IT personnel to deploy the OS in different languages using a single disk image. Note, however, that Enterprise Edition will be made available only to Enterprise Agreement (EA) and Software Assurance (SA) volume-licensing customers. (Or, of course, you can just buy the Ultimate Edition, see below.)

Bestriding the canyon that exists between the home and business editions is an everything-but-the-kitchen-sink version:

Windows Vista Ultimate — This edition comes with all the features of the Home Premium and Enterprise editions. It also offers enhanced game performance, access to online subscription services, custom themes, and enhanced support.

(Continued on page 10)

(Continued from page 9)

There is a Sixth Vista Version

Windows Vista Starter — This is a stripped-down edition of Vista that is available only in emerging third-world markets. It's designed for low-cost PCs and is optimized to run on machines with relatively slow CPUs and small memory footprints. This means that the Starter Edition won't support features such as the Aero shell, networking, image editing, and DVD burning. As with XP Starter Edition, Vista Starter Edition is limited to an 800x600 display and won't allow users to open more than three programs or three windows at once.

In addition to these editions, there are origi-

nal equipment manufacturer (OEM) equivalents for all versions, as well as 64-bit versions for everything except the Starter Edition. Finally, Microsoft also released special versions of Vista — a Home Edition and a Professional Edition — customised for Europe to satisfy antitrust legal obligations in the EU, which means these editions come without Microsoft's media features, including Media Player and Media Centre.

Finally — Tech Support

As for technical support, the round-the-clock kind is still best. But that doesn't guarantee that you will reach a human voice when you call, or that the voice will

offer useful answers, or that the advice is free; some companies charge you £1 per minute to talk to a 'support adviser' sitting in a call-centre in the Indian sub-continent. He might have the knowledge to answer your query but being able to understand what he's trying to say in his Peter Sellers' voice can be a pain and at £1 a minute an expensive pain — so keep a tech-savvy friend's phone number handy.

Good Luck!

NB. With Geoff's permission I've inserted UK equivalent items, UK pricing and mentioned UK suppliers as necessary — Ed.

Three New Windows Vista Books

Read by Tony Hawes

With the launch of Vista and on the assumption that Vista does not come with a meaningful manual it's necessary to look at books which one could use in lieu of an in-the-box manual (and excuse me if the boxes do come with a manual, but Microsoft and their PR agency have yet to supply a full review copy).

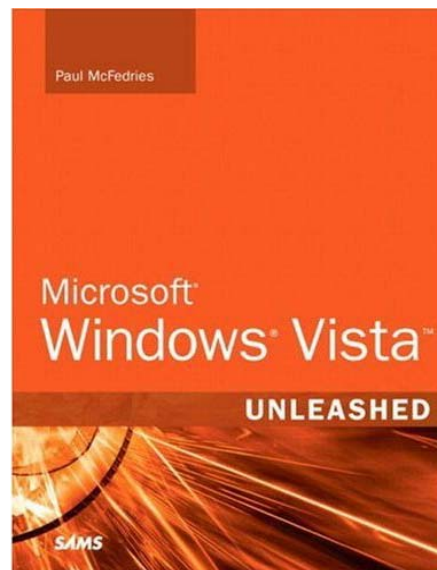
Three books are being looked at. One which deals with Vista in-depth, one as a teaching aid for the intermediate user to better understand the ways Vista works and finally an all-colour screen-shot on every page book, ideal for beginners new to Vista and for intermediate user's who need their hand-help in the transition from Windows XP to Vista.

Microsoft Windows Vista Unleashed

Author Paul McFedries. Publisher Sams Press. ISBN: 0-672-32894-1, Pages: 840, Price: £35.99. Target User: Intermediate / Advanced.

Windows Vista doesn't come with a manual. There is useful help file, but that's it. Online it's possible to download from Microsoft's Vista web site a 300-page long Vista Product Guide but available only in Microsoft's new Word 2007 format (.docx) It's a large (61.5Mb) download, and if you don't have Word 2007 you'll need to download the converter to convert it to the current MS Word.doc format. This covers many of the topics covered in the book under review but any on-line document is never as useful and easy to use as a well indexed printed manual. OK the downloaded manual can be printed out but the economics are not favourable when compared with a commercially printed and bound published book.

"Microsoft Windows Vista Unleashed," aims to give the reader an in-depth insight into the new and updated features built into Windows Vista. The author Paul McFedries is a prolific author who writes about a range of subjects but seems to specialise in



writing about Microsoft's operating systems and related applications.

It is 840-pages long, profusely illustrated with screen shots (albeit in black and white) and divided into six parts that group together related tasks. By this method the author aims to give the reader an in-depth guide as to what is included and how to use Vista's many new features. Parts cover the following subjects:

Part I: Unleashing Day-to-Day Windows Vista

Part I takes your basic, workaday Windows chores and reveals their inner mysteries, allowing you to become more productive. After an initial chapter on what's new in Vista, topics include the myriad ways to get Windows Vista off the ground (Chapter 2), how to use Windows Vista to work with files and folders (Chapter 3), getting the most out of file types (Chapter 4), installing and running applications (Chapter 5), working with user accounts (Chapter 6), dealing with digital media (Chapter 7), using Contacts, Calendar, and faxing (Chapter 8), and Vista's mobile computing tools (Chapter 9).

Part II: Unleashing Essential Windows Vista Power Tools

The chapters in Part II get the reader's advanced Windows Vista education off to a flying start by covering the ins and outs of four important Vista power tools: Control Panel and group policies (Chapter 10), the Registry (Chapter 11), and the Windows Script Host (Chapter 12).

Part III: Unleashing Windows Vista Customization and Optimization

Part III dives into the deep end of advanced Windows work: customizing the interface (Chapter 13), performance tuning (Chapter 14), maintaining Windows Vista (Chapter 15), troubleshooting problems (Chapter 16), and working with devices (Chapter 17).

Part IV: Unleashing Windows Vista for the Internet

Part IV shows how to work with Windows Vista's Internet features. Here you learn how to get the most out of a number of Internet services, including the Web (Chapter 18), email (Chapter 19), and newsgroups (Chapter 20). This part closes with an extensive look at the Internet security and privacy features that come with Windows Vista (Chapter 21).

Part V: Unleashing Windows Vista Networking

To close out the main part of this book, Part V takes an in-depth look at Windows Vista's networking features. Readers are shown how to set up a small network (Chapter 22), how to access and use that network (Chapter 23), and how to access your network from remote locations (Chapter 24).

Part VI: Appendixes

To broaden the reader's Windows Vista education, Part VI contains a few appendixes that include extra goodies such as a complete list of Windows Vista shortcut keys (Appendix A), a detailed look at using the Windows Vista command prompt (Appendix B), and a batch file primer (Appendix C).

(Continued on page 11)

(Continued from page 10)

Browsing through the book the parts are sub divided into individual chapters so that in Part 1, 'Unleashing Day-to-Day Windows Vista' you'll find the following chapters:

Chapter 1. An Overview of Windows Vista

Chapter 2. Customizing and Troubleshooting the Windows Vista Start-up

Chapter 3. Exploring Expert File and Folder Techniques

Chapter 4. Mastering File Types

Chapter 5. Installing and Running Applications

Chapter 6. Getting the Most Out of User Accounts

Chapter 7. Working with Digital Media

Chapter 8. Vista's Tools for Business: Contacts, Calendar, and Faxing

Chapter 9. Mobile Computing in Windows Vista

...and so on.

Not for Average Users

Microsoft Windows Vista Unleashed is a book for those who don't consider themselves to be "average users." It's a book for anyone who finds that doing things the official way is slower, less efficient, and less powerful because Windows Vista was designed from the ground up to avoid confusing novice users. The result is default settings that restrict flexibility, interminable wizards that turn two-step tasks into twelve-step sagas, and the hiding of powerful and useful programs behind layers of menus and dialogue boxes. To unleash the potential of Windows Vista, you need a different approach that removes Vista's novice features and scorns the standard way of doing things.

This means this book goes beyond the standard-issue techniques sanctioned by Microsoft and parroted in other Windows Vista books. Instead, this book offers shortcuts for boosting productivity, customisations for making Windows Vista work the way you want it to work, workarounds for known Windows Vista problems, and warnings for avoiding Windows Vista pitfalls. Along the way, the reader will learn about all kinds of insider details, undocumented features, powerful tools, and background facts that help put everything into perspective.

A Superb Index

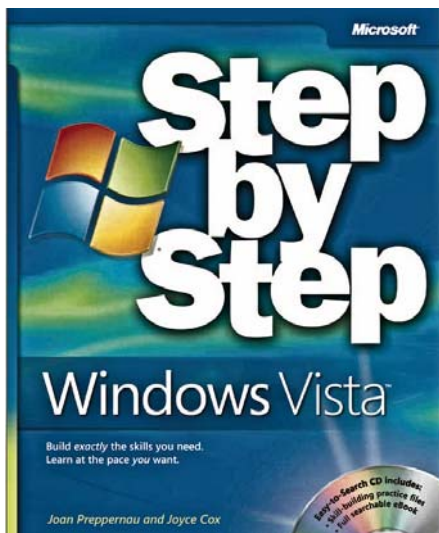
To give you an indication of the scale of contents the index pages alone run to 60-pages and cover from the first entry: "Accelerator keys for actions, defining" though to the last index entry which is "Zones, security, modifying sites."

The author's writing style is easy to understand, is not patronising and covers so much more about Vista that I found using the book an education. The comprehensive

and well organised index is excellent and makes finding the section/s in the book where you need guidance easy. In the absence of a 'proper' Windows Vista manual for Intermediate and Advanced users this book is recommended.

Order Details

Author: Paul McFedries, Publisher: SAMS, ISBN: 0-672-32894-1, Pages: 840, Price: £35.99. Supplied by Computer Bookshops and available from: www.computerbookshops.com.



Windows Vista — Step by Step

Authors: Joan Preppernau and Joyce Cox, Publisher: Microsoft Press, ISBN: 9780735622692 (0735622698), Pages: 384 Price: £17.99. Target User: Beginner/Intermediate

Description

The *Step by Step* series targets those new to particular tools and technologies. This book is ideal for beginning-level to intermediate-level users of Windows Vista

The smart way to learn the latest version of Microsoft Windows—one step at a time. Work at your own pace through the easy numbered steps, practice files on CD, helpful hints, and troubleshooting help to master the fundamentals of working with Windows Vista, including how to navigate the new user interface and how to use the new search features for finding anything on your desktop. You will learn how to manage files and folders to simplify your work, easily add or remove programs, hook up printers and other devices, and set up your Internet connection, email, and instant messaging. You will also discover how to use security-enhanced features to help protect your PC, as well as how to share your computer while still helping keep personal settings and files private. You'll even learn how to enjoy all your favourite entertainment—music, pictures, and more—all in one place. With *Step by Step*, you can take just the lessons you need or work from

cover to cover. Either way, you drive the instruction—building and practicing the skills you need, just when you need them!

Lessons and Exercises

As a "Step by Step" guide the book is divided into lessons and exercises that you can take at your own pace: finish lesson one and you then proceed to lesson two and so on. Tucked inside the back cover of the book you'll find a CD, this contains practice files in the form of documents and files which you load on your computer; follow the lesson and text in the book and the document that you are practicing on is in front of you on the screen. As you progress you are encouraged to learn more advanced Vista techniques so that by the end of the book you've been introduced to many of Vista's more powerful features and hopefully (!) will be able to put them into immediate practice. I particularly liked the Key Points at the end of each chapter which highlighted the subjects in the chapter that you are supposed to have learnt — a little like being back at college, but very effective.

Chapter headings are:

1. How to Get Started with Windows Vista
2. Work efficiently in Windows Vista
3. Working with files and folders
4. Personalising Windows Vista
5. Installing and Configuring devices
6. Safely and Efficiently Accessing the Internet
7. Working with Programs
8. Making Connections
9. Working with Digital Media
10. Managing Computer Security
11. Optimising Your Computer System
12. Identifying and Solving Problems

Windows Vista has a whole list of new features compared with what was included in Windows XP. Many of the familiar program elements have been reorganised to give you better access to the features you use most, and many new features have been added to make it easier to access the tools you use most often.

Some of the features that are new or improved in Windows Vista won't be apparent till you start using the program. While many new features of Vista are discussed in this book, many other new features are dealt with by reference to Vista's help files.

In addition to the practice files necessary to complete the lessons the bundled CD also includes the following useful extra's:

- Windows Vista Step by Step in eBook format
- Microsoft Computer Dictionary, 5th ed. eBook
- First Look 2007 Microsoft Office System (Katherine Murray, 2006)
- Sample chapter and poster from Look Both Ways: Help Protect Your Family on the Internet (Linda Criddle, 2007)

(Continued on page 12)

(Continued from page 11)

Conclusions

As the title says, it's a quick Step by Step course in Microsoft's new operating system and coming from the Microsoft Press it is authoritative in its statements.

If you need a concise and competent introduction to the various interlocking features of Vista applications, then this book fits the bill. It's clearly laid out and, as always, it's easier to follow printed text than to navigate the online help.

One slight down point: The illustrations and screenshots not in full colour, which is a pity, but if you can live with greyscale images, no sweat.

Order Details

Authors: Joan Preppernau and Joyce Cox, Publisher: Microsoft Press. Paperback: 386 pages. ISBN-13: 978-0735622692.

Supplied by Computer Bookshops and available from:

www.computerbookshops.com

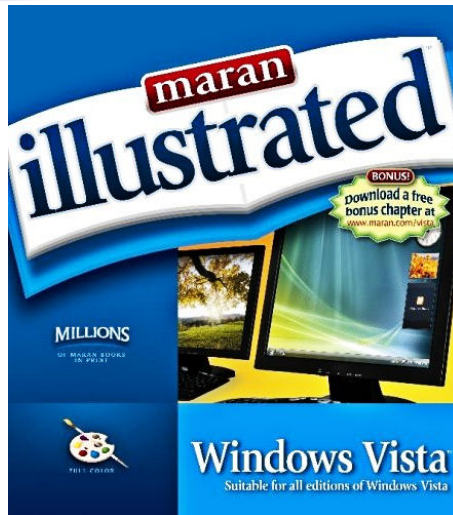
Maran Illustrated Windows Vista

Publisher: MaranGraphics, Authors: The Maran Family, Pages: 320, Price: £17.99 ISBN: 9781894182331 (1894182332),

Ruth Maran of the Maran family is one of a select few North American authors who can claim over 10 million books in print. Ruth has written bestselling user guides in a number of different computer topic areas including Windows, Access and Mac OS X.

Description

Maran Illustrated Windows Vista is an excellent guide for Windows users of all skill levels. Using clear, step-by-step instructions accompanied by over 500 full-



colour screen shots, Maran Illustrated Windows Vista is perfect for any visual learner who prefers seeing what to do rather than reading lengthy explanations.

Maran Illustrated Windows Vista is the fastest and easiest way to learn about Windows Vista. New and improved Vista features covered in this book include:

- Live Taskbar Thumbnails, Windows Flip and Flip 3D
- Vista Firewall and Windows Defender
- Desktop Search and Quick Search
- Internet Explorer 7, including Shrink-to-fit printing
- Windows Sidebar and Gadgets
- Picture slide shows and Media Center

Maran Illustrated guides are full-colour, easy-to-use, information-packed resources. The information is communicated through clear, step-by-step instructions and accompanied by full-colour screen shots — perfect for any visual learner. Maran Illustrated contains 30% more content than our Guided Tour Series. Learning Windows has

never been this easy.

- Two-page lessons throughout the book offer exercises you can try right away
- Vector-based illustrations provide a visual metaphor to help speed comprehension of topic information
- Special sidebars for each lesson provide useful tips and tricks
- Large full-colour screen shots illustrate how to correctly perform each exercise
- Step-by-step instructions explain beginner to more advanced techniques.

This has to be the icing on the cake for the novice or improving intermediate user of Windows Vista. Every page is in full colour. Illustrated tasks are in the form of a flow-charts. Start the task, follow the flow-chart numbered arrows to completion and that's it — Bob's your father's brother.

There is not much more that one can say about this book, the all-colour pages say it all. Have a look at the two pages below for more information, or better still download a free bonus chapter in PDF format from www.maran.com/vista.

Very strongly recommended. Already two friends to whom I showed the book have placed orders in advance of the arrival of new computers with Vista as the operating system!

Order Details

Publisher: MaranGraphics, Authors: The Maran Family, Pages: 320, Price: £17.99

ISBN: 9781894182331 (1894182332),

Supplied by Computer Bookshops and available from:

www.computerbookshops.com


Books on Show

NB. The three books reviewed above will be available for perusal at the February meeting on Monday 12 February.

COPY FILES TO A CD

Bonus Chapter

You can copy files, such as documents and pictures, from your computer to a CD.



You will need a recordable CD drive to copy files to a CD. A CD can typically store 650 MB or 700 MB of information.

You can copy a folder to a CD the same way you copy files to a CD. When you copy a folder, Windows will copy all the files in the folder.

Tip Why would I copy files to a CD?


You can copy files to a CD to transfer information between computers. When you copy files to a CD, computers using an older version of Windows may not be able to access the files on the CD.

You can also copy files to a CD to make backup copies of the files stored on your computer. Making backup copies of your files will provide you with extra copies in case you accidentally erase the files or your computer fails.

Tip Can I copy new files to a CD at a later time?

Yes. You can copy new files to a CD at a later time. However, each time you remove the CD from the drive after copying files, 20 MB of extra information is stored on the CD. To make the best use of the storage space on the CD, copy all the files to the CD at one time.

COPY FILES TO A CD



1 Insert a recordable CD into your computer's recordable CD drive.

The AutoPlay dialog box appears, asking what you want to do.

Note: If the CD contains files, the AutoPlay dialog box will not appear. Skip to step 5 to continue.

2 Click Burn files to disc to continue.

3 The Burn a Disc dialog box appears.

4 Type a title for the CD in this area.

5 Click Next to continue.

Note: The title can contain up to 16 characters.

6 A window appears for the CD.

7 Open the folder containing the files you want to copy to the CD.

8 Select the files you want to copy.

9 Position the mouse over one of the files you selected.

10 Drag the files to the window for the CD. Windows copies the files to the CD.

11 When the copy is complete, this area displays the files you have copied to the CD.

12 You can repeat steps 5 to 8 for all the files you want to copy to the CD.

13 When you have finished copying files to the CD, click [X] to close the window for the CD. You can then remove the CD from the drive.

© and ™ 2007 maranGraphics Inc.

Samsung YP-T9J MP3 Player

Reviewed by Laurence Fenn



Although I like music and I'm into the whole MP3 thing, I've never had an MP3 player, so it was interesting to review the Samsung YP-T9J. I couldn't compare it to an iPod, as the only MP3 device I have is a CD player. As I

archive all my MP3 files onto CD-Rs, it helps that I play them directly in a player without having to transfer files to a device. This MP3 player from Samsung plays MP3 files, wma files, videos, has a text browser, an FM radio, can view photos, has a couple of games and has a voice recorder.

The T9 is small and quite thin, looking like a mobile phone (but they get smaller every day), with a 1.8 inch screen, a black finish (apart from the sides which are silver with a few buttons), and a silver button on the front. The headphone socket is on the top, along with the microphone for the voice recorder, and the USB connection socket is on the bottom, using a flat non standard socket, that fits the cable supplied. You also get a set of headphones, but you can use any set with a 3.5 inch jack, or a Bluetooth headset (did I mention it has Bluetooth as well?). The button on the left of the player is for hold, and on the right there are four buttons for turning the device on/play/pause, menu, back and A-B repeat/record. I did get a bit confused as to which button to use, but after a while you get used to the position of them. The animated display/photo/cover art feature is okay, but I found once I started playing music, I wasn't spending time looking at the display.

Music

When you play music on the device, you have a choice of three animated displays that move in time with the music, a photo or the cover art for the music. MP3 files can have a jpg embedded in them, and the device will display it if available. I had some trouble with this, until I found out that it will only display the graphics if the picture is under 200 pixels in size. Several files I had transferred across had pictures embedded, thanks to either the latest version of media player or one of many MP3 programs for PC that can embed pictures, but because they were larger than 200 pixels, the device just showed a graphic of a pair of headphones.

The user interface system requires that

you are on particular screens to do certain things, which often means pressing the 'back' button several times. I had been using the device for only five minutes before I had to look in the manual to work out how to do something, but even that was tricky. You only get a Quick Start guide, which is one of those three page guides in several languages, and no physical copy of the manual. The PDF Manual is on the CD, and the autorun for the disc gives you the option to read it, as well as install the Media Studio software used to transfer music, along with the driver for the player itself. There's no link to read the manual on the Start Menu as it is not copied to the hard disc at all. How do Samsung expect you to learn how to use the device if they make the manual difficult to read?



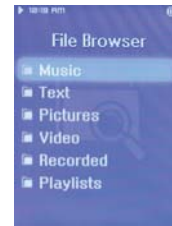
There are ten sections on the T9, each with its own icon, selected from the main menu: Music, File Browser, FM Radio, Text, Photo, Video, Game, Record, Bluetooth and Settings.

In the Music section you can list the

tracks on the device by Artist, Album, Track, Genre or Playlist. This is according to the ID3 tags, so it's important that they are set correctly before the MP3 files are transferred across.

There are some options when playing music, such as Street Mode (which "allows you to hear music more clearly outdoors," or rather, increase the volume, DNSe (a selection of EQ and "3D surround-sound" settings), Play Mode (Normal plays all tracks in order once, Repeat repeats the current folder you are playing, Repeat One repeats one file, and Shuffle is self explanatory), Play Speed (which gives you a plus or minus scale of 3 to increase or decrease the speed and pitch together) and Skip Interval (which controls how far ahead the skip button jumps).

The headphones supplied are not of high quality, and almost as compensation, there are 3D and virtual sound options. These settings try to improve the sound quality and the feeling of space, but it just sounded like the music was played in a large room, with strange acoustics. There is no substitute for a decent set of headphones, whether a standard type or in ear variety. When I used to listen to music on my Walkman, MiniDisc and then CD player I would invariably use the more expensive headphones that I bought separately, leaving the ones supplied with the unit in the box.

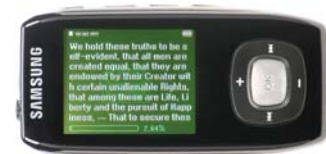


The **File Browser** does just that, choosing from Music, Text, Pictures, Video, Recorded files or playlists. If you have a compilation album or a set of files in one directory, this is the easiest way to play them.



The **FM Radio** works well, with the ability to store frequencies as presets and display station IDs where possible. It's been a while since I'd used an FM tuner, as I tend to use my Freeview

box to listen to digital radio, and I only managed to pick up six stations. I would have thought that in a modern device you would have a digital radio, but the FM one worked as good as expected.



Text files can be viewed in portrait or landscape.

You can

set a colour scheme (the same choice you have as the overall interface scheme) and you can bookmark the text, so you can go back to a particular part of the text.



Photos can be transferred to the device and are converted to jpg, but you do have some control in the size and quality of the file. You can browse the pictures with a three thumbnail view or full view, but like the video

playback the display is really too small to see any great detail. There is no memory card slot (unlike my Pocket PC which has an SD and CF slot) so any photos you want to put on the device will have to be transferred from your PC.



Video playback on the T9 is a bit of a disappointment. With the screen so small you can't really see much detail. It's the same

with mobile phones, but I'm of the old school that thinks you should just use your mobile for making telephone calls and not playing music, taking photos, surfing the internet, watching video, etc. The screen is 208x176 pixels in size, which if you work it out is not a 4:3 ratio. Videos I had converted to wmv to watch on my Pocket PC (which has a screen twice as large) would transfer across with the software, which automatically converts the file to SVI

(Continued on page 14)

(Continued from page 13)

format (that's an MPEG-4 type with MP3 audio at 128kbps). When I played them back on the T9 the video was stretched vertically, so everyone was a bit thin and taller than normal. All video files are converted to the full screen size, so if you transfer a widescreen video the playback would not have black bars and the image would be very distorted. One of the two clips included on the device was a Samsung commercial obviously filmed in widescreen as the playback showed everything squashed. Now I know the software isn't intended to replace video converters, but the lack of any control over the aspect ratio is of no help, especially when one of the clips meant to demonstrate the playback facility is wrongly sized. If I wanted to watch anything correctly on the T9 I would have to render the video to allow for the distortion, and then let the software convert it again when I transfer the video file across. You can bookmark parts of the video, but as it just doesn't look right on screen, I wouldn't watch anything for a long period.



In the **Games** section there are two games included on the T9, Baseball and Pizza Delivery. They are both fairly easy to play as you don't really have many controls to play with. They look almost

Japanese in style and are built into the firmware of the device. I found them quite limited in their appeal, especially as there is no way to add games to the collection. You could have a wide variety of games as the device can play the Shockwave flash file format (the games are based on this format) but several of those games I've seen would need a mouse-like control on screen, which the T9 does not have.



The **Record** section, or rather, the voice recorder, is very easy to use and you can set the MP3 bit rate to 96, 128, 160 or 192 kbps. You can also record from the FM radio, and set a different bit rate for

that as well. The microphone is quite sensitive and works great if you are just recording a voice.

The **Bluetooth** functions only really work with a Bluetooth headset, which I didn't have. You can't connect to your PC with it and transfer files but you can use Bluetooth to connect to a Samsung mobile phone.

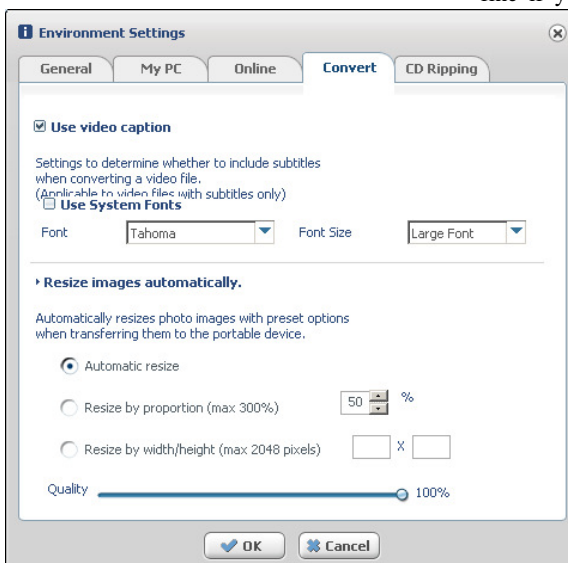
The **Settings** page allows you set the button sound on/off, the colour scheme of the interface, brightness, set the date/time, and other details. There's also an option for a Sleep Timer, which will switch off the



The Samsung Media Studio

device after a certain time.

On the PC, the **Samsung Media Studio** program is not the most stable of software. It can automatically start when the device is connected with the USB cable, but you have to add music to the collection before transferring it. You cannot just browse to a folder where your MP3 or wma files are and drag them onto the device with the software itself. It also seems to think that you will use the software to play your existing music collection on your PC. As I said before, I archive my MP3 files to CD, and I did manage to select the CD drive as a folder, and so transfer music from the CDs to the device without adding them to a library. Unfortunately some of my older CDs are a little worn, and the software just froze when it couldn't read a file, instead of giving an error message. Worse than that, on a couple of occasions the player froze as well, requiring a reset through a button combination. I ran an update for the software, but that didn't seem to make any



Environment Settings Dialog

difference. On the **Environment Settings** dialog (that's options to you and me) part of the text does not go the way across

the dialog and partially hidden behind some text below it. It gives the impression that the software wasn't tested properly before release.

Whenever the player is plugged in the lithium battery is charged, which gives 30 hours of use apparently. The battery indicator only has five segments and there is no display of exactly how much power is available on

the device. If you close the PC program and start it again, or plug in the device without starting the software and then launch it, or disconnect then reconnect the device, the software does not recognise the player has been connected. You have to unplug the USB cable from the player and plug it in again when the software is running. I did manage to browse the player's contents from Windows Explorer and copy and paste files, and you can also sync the device using Media Player, but this last option had a bit of a quirk. Media Player 11 (and it may also do this with older versions) created folders according to the ID3 tag information in the MP3. Nothing wrong with that you may say, but when I copied a compilation album across, instead of putting all the tracks across in one directory, Media Player created a folder for each artist, and then made another sub folder of the album name. Instead of one folder with 15 different tracks by different artists, I had 15 folders, all with a sub folder with the name of the album and then the single track inside that. I'm sure that works fine if you never want to transfer an album

with more than one artist, but I found it extremely annoying. Even more so was the fact that you can't move tracks on the device, only delete them.

Pricing and Availability

There are three models available, a 1Gb model for £89, 2Gb model for £119 and a 4Gb model for £149. I was reviewing the 2Gb version, and whilst the device is very stylish and light (it weighs around 49g) the quirks in the way it operates, and particularly the software used to transfer files across lets it down a bit. When playing music it's fine, with the big button working as a previous/next button and volume up/down, and that's all you need.

This device will be in the shops later this month, but currently (early February) the major vendors don't have it listed.

New from Epson — Stylus Photo 1400 Printer

Print bigger with the new Epson A3 photo printer featuring Claria Photographic Ink

The Epson Stylus Photo 1400 features fast connectivity, six individual ink cartridges with Epson Claria Photographic Ink and advanced Epson imaging technologies. It prints high-quality, glossy photos up to A3+.

Epson has launched a new A3+ six-colour photo printer, featuring Claria Photographic Ink for long lasting, borderless premium quality photo prints. The Stylus Photo 1400 is the successor to the renowned Epson Stylus Photo 1290s and offers more durable photos, superior image quality and faster printing speeds. It also features six individual ink cartridges, so only the colour that is used needs to be replaced. Direct printing onto CD and DVD faces is included for personalised archiving and easy identification of CD content. Connectivity support includes PictBridge, USB 2.0 and an optional Wireless Ethernet Print server.

The Stylus Photo 1400 is equipped with Epson's advanced Micro Piezo print head technology that delivers sharp borderless prints from 10x15cm up to A3+. It also incor-

porates Epson's improved Advanced Variable-Sized Droplet Technology (Advanced VSDT) which provides more flexible ink droplet sizes and more accurate placement of the droplets. Together with six-colour printing, the result is even more detail where light colour and softer tones are required.

The Stylus Photo 1400 driver also supports Adobe RGB for a wide colour gamut. Additional colour output modes include 'Epson Vivid' ideal for presentations and graphs and 'Epson Standard' for faithful reproduction of sRGB images. In addition, the Epson Stylus Photo 1400 allows advanced colour management with out-of-the-box ICC profiles for the Epson media range.

Epson PhotoEnhance automatically detects and optimises images according to subject type, for example, portraits, landscapes and sky lines. In addition it analyses and improves skin tones, colour casts or light exposure. The end result is optimum image quality regardless of experience in photo manipulation.

Mark Robinson, Product Manager, Epson UK says, "Epson has developed a new generation of affordable A3+ photo printer to meet the needs of the amateur photographer and photo enthusiast who want to print their

bigger photos on glossy media. The Stylus Photo 1400 benefits from the superior quality output of Epson Claria Photographic Ink while offering an efficient and affordable solution for bigger prints."

About Epson Claria Photographic Ink

The name "Claria" is derived from the term clarity and is specifically denoted as Photographic Ink to express Epson's confidence in its rich definition and excellent durability. When combined with Epson Glossy Photo Paper, Epson Claria Photographic Ink delivers superior quality glossy prints of the highest levels of durability. The six-colour ink set includes cyan, magenta, yellow, black, light cyan and light magenta. It offers 200 years of durability and archivability in album storage, family photos can be preserved and shared for generations to come.

With Epson Claria Photographic Ink the colouring agents' molecules have a stronger and more stable structure, making them more resistant to the fading effects of light and unstable gasses in the atmosphere. The result is that Epson photo prints retain their beauty under a wide range of conditions.

Your editor has a stunning A3 photo printed from this printer. He'll bring it to the talk on Monday 12th February.

(Continued from page 4)

was night and proper. Face it, she won for all sorts of reasons — and they had nothing to do with sport.

How many of you or your friends have actually seen her compete in an event, either on television or in the flesh? — I can guess the answer.

Even the BBC, who managed to fix the voting for the Sports Personality of the Year by obscure voting procedures that are anything but transparent, later released some spurious percentages relating to the number of telephone votes cast but the methods used were reminiscent of Soviet Communist voting procedures at the height of the communist era. To compound mat-

ters it later emerged from researchers who know these things, that her sole TV exposure on her world championship bid amounted to just 45-minutes of live action on BBC2, plus mentions in a couple of 'highlights' replays, which isn't much change from a three-day event.

PS. I asked a friend what he thought "Eventing" was. He believed it was something homosexuals got up to on Hampstead Heath, but then he's old and doesn't know!

...and Finally

As mentioned on page one, Microsoft were unable to supply review copies of Vista and Office 2007 in time for review in this issue, but a note from Geoff Arnold who sends the occasional article for pub-

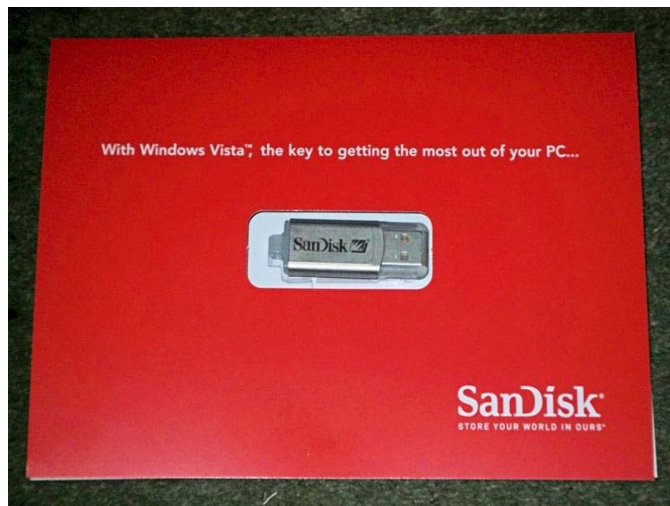
lishing in ROM from his connections and contributions to the US Association of PC User Groups (APCUG), his most recent being "Buying or Upgrading a New Computer" on page seven.

Geoff reports that one of his journalist colleagues was present at the US launch of Vista: Ultimate (32-bit and 64-bit) and Home Premium; he was also given one of the Windows Vista Launch kits (see below left). In comparison we UK journalists were not very well served — no Vista, no Office 2007, but in compensation we got a free copy of Windows Vista magazine (cover price 99p) and a Press Kit on a USB Flash Memory Drive — see below!



USA Windows Vista Launch Kit in a box includes:

Lego Star Wars II - The Original Trilogy, SanDisk Cruizer Micro 2GB, Windows Live USB Key, Windows Vista MousePad, Belkin easy transfer cable, Windows Vista Storybook, T-Mobile DayPass, Windows Vista Magazine, Microsoft Office Live Trial



UK Journalist Press Kit. It also included a copy of Future's Windows Vista Magazine (99p) and a trial 30-day WiFi access card.

Bring the darkroom into the light

Epson is your perfect partner in the advanced world of digital photography and sets the standard in creative photo imaging. Our innovative products provide you with endless possibilities.

It's time to step out of the darkness and get more from your images.

See live product demonstrations @ www.epson.co.uk

Scanners, Photo Printers, Photo Viewers, Projectors

EPSON[®]