ROM

Newsletter of the Guildford PC User Group

Editor's Bit

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)

Stoughton Youth & Community Centre is Under New Management

For those of you at the last meeting who had to stand at the back of the hall for lack of chairs, a small crumb of comfort has come our way in the form of a letter. It appears the management who run the hall had just changed from the responsibility of Surrey County Council to "Disability Challengers", a charity. A copy of the letter announcing this is below. Quite obviously the needs and requirements of existing hall users, including ourselves, were not passed on to the new managers when the hand-over took place. However, we are now in contact with the new managers and hopefully our needs vis-à-vis enough chairs for members and visitors in the audience, sufficient tables for our demonstration needs including a table for our projector, etc. will have been resolved by then.

Here is the letter from the new managers dated 21 May 2007.

Bellfields and Stoughton 'Community Partnership Centres' Surrey County Council passing management to Disability Challengers.

We are pleased to tell you that, from 1 April 2007, Disability Challengers will be responsible for the management of both the Bellfields and Stoughton Youth & Community Centres. The charity was asked to help after it was announced that Surrey County Council would no longer be funding the

management of the centres and that they were at risk of closing. We were especially pleased to be involved because of the opportunities that the centres presented to the youth schemes that Disability Challengers run in Guildford.

We are working to make sure that there is as little disruption as possible during the change over and will do everything we can to keep 'business as usual'. For most groups who use the centres there will be no change to bookings, except that you will now call Disability Challengers to make your booking. One reason Disability Challengers is pleased to manage the centres is that they offer venues for play and youth schemes that the charity runs in Guildford. Through May and June we will contact any groups who may be using the centres at the same time as Disability Challengers. Over the page is a summary that will answer most questions you may have. If you need any more information about Disability Challengers and the centres please do call us.

Please send in the booking form (attached) for all your bookings from 1 April 2007. Please do this, even though you may have already booked. This is so that we do not 'loose' any appointments or double book the centres during the 'hand over'.

We would like to invite you to a User Forum meeting - for all groups who use or would like to use the centres. Please confirm your attendance by calling Disability Challengers or emailing jonathandobson@disability-challengers.org The dates of the meetings are:

Bellfields Users Forum 14 June, 7pm - 9pm at Bellfields Centre.

Stoughton Users Forum 4 July, 7pm - 9pm at Stoughton Centre.

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

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NEXT MEETING — Monday 11th June 2007 at 7.45 p.m.

Corel Paint Shop Pro XI Tutorials

Got PSP 10 or XI? Your chance to learn from the experts. A Corel sponsored program of "how to use PSP", from the simplest of tasks through to those that you have ignored because you think they are too difficult, but when shown how to do it by the expert/s are not too difficult at all. An informative evening is promised.

Spread the word and please bring a friend — coffee, tea & chocolate biscuits are free.

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 9th July 2007 at 7.45 pm
    Video Editing.— Just in time for the summer holidays — a "Camcorder Video How To Do It" evening with first rate tuition from a professional trainer.
Monday 13th August 2007 at 7.45 pm
    Bring your computer to the club night.
Monday 10th September 2007 at 7.45pm
    In Arrangement

(Continued from page 1)
We look forward to working with you."

Hopefully a Group representative will attend the 4th July User Forum to ensure that the new management are made fully aware of our requirements for our monthly meetings and we in turn can hear from the new management what they expect from us as hirers of the hall.

Secretary's Notes

Monday 16th April

Annual General Meeting. Individual committee members explained their past years' activities and the treasurer presented the accounts. The Chairman (Tony Wood) mentioned that the past years' activities are recorded extensively in the April – May 2007 edition of ROM, the Group newsletter and members were directed to the Group web page to download a copy if they had not already done so. Overall we have had a good year with presentations and demonstrations at most meetings, but membership remains static and existing members are encouraged to recommend potential new members from among their friends or colleagues emphasising that new members are always made very welcome. The committee welcomes suggestions from members as to how we can raise awareness of the Group and make computer users in the area aware of our existence.

The Treasurer (Francis Jacques) presented the accounts of the group; these showed we are still in the black; this is accounted for by the decision made at last years AGM when it was decided that the Group newsletter (ROM) would no longer be printed and posted to members, but only available as a download from the Group web page, thus leading to substantial savings. The Treasurer mentioned that on the assumption that membership remains at the current level or higher there is no need to raise the membership fee beyond the current £20 pa. Copies of the accounts were handed to members.

The Editor of ROM (Tony Hawes) said it was still an uphill struggle to get input for ROM, but he was very thankful for the assistance made by those members who made regular editorial contributions.

The Membership Secretary (Maxine Bushell) was absent but she considered (in a separate contribution) that with ROM now only available as a download, the necessity of recording individual postal mail addresses and printing the labels for despatching ROM by post was no longer a task that need a separate member of the committee. It was agreed therefore that the post of Membership Secretary would be allowed to lapse. A list of members is available from the Treasurer who records their details when they pay their subscriptions.

The committee then stood down and election of new committee took place. Unfortunately there was no volunteer for the post of Chairman, which is currently in abeyance. However, the former Chairman agreed that he would remain the registered Group key holder for the keys to the hall. The positions of Treasurer, Editor of ROM, Secretary & Public Relations and Web Master remain with the current incumbents who were elected unopposed by members present. Contact details of Committee members will appear in the June / July issue of ROM.

Monday 14th May.

Upgrading to Vista and Blue Squirrels' Click-book Program. On Monday 14 May Tony Hawes started off the evening with an interactive demonstration showing how to upgrade your operating system from Windows XP to Windows Vista. He explained that both operating systems had a number of versions and whereas Windows XP offers different editions of the operating system based on the type of computer using it; Windows Vista offers different editions based on the features users want on their computers.

The demonstration was based on the initial chapter from the "Windows Vista Ultimate - Professor Teaches" from the "Professor Teaches" series of training courses on DVD. This augmented the article he wrote for the April/May version of ROM and was a very clear explanation of the operations and processes to be considered when upgrading to Microsoft's new OS and the more obvious visual differences between Windows XP and Vista.

The evening ended with Tony explaining and demonstrating a printing program that he has been using since version 2 in the mid-1990s by Blue Squirrel software called ClickBook. This is a very easy to use program which will turn anything you can print into a booklet format (and others). ClickBook will take any of the many varieties of computer and Windows application documents such as Word, Publisher, PDF, HTML, text etc and shrink the pages or rotate the layout to fit the output format you have chosen. It will print both sides of the paper and always maintaining the book page numbering. Tony demonstrated this program by printing the latest 16-page long ROM, a MS Publisher (.pub file) as an A5-size booklet which needed just four sheets of A4 paper, thus saving paper and ink or toner and perhaps creating a more convenient format for reading and storing. Now up to version 10, ClickBook is available for download from the Blue Squirrel site for about £25 from: http://www.bluesquirrel.com/products/clickbook/. This ended an interesting evening.

Wi-Fi

Did you see the recent BBC Panorama program that claimed that WiFi in schools was dangerous to children's health? A fan of Panorama for more years than I care to mention, this was one of the most biased programs I've ever seen. It was filled with pseudo science so laughably inaccurate I didn't know whether to laugh or cry.

The program was out to show that Wi-Fi networks now being rolled out in schools across the country are harming children. There was no science in it, just some "experiments" they did for themselves, and some conflicting experts. Panorama disagreed with the WHO expert, so he was smeared for not being "independent" enough and working for a phone company in the past; didn't consult with BT who are currently WiFi-ing the whole of Westminster whose tests show there is no danger to the public — "The power levels transmitted from Wlan access points [in Westminster] and from the communication cards in a PC are under 100mW. This very low power results in exposure levels which are usually thousands of times below the ICNIRP (International Commission on Non-Ionizing Radiation Protection) public exposure guidelines, worst of all, given that the BBC is probably the most respected broadcasting organisation in the world and as such staffed by engineers whose sole duties are concerned with RF engineering — Panorama didn't bother consulting them before broadcasting the program.

Shown were folk who are allegedly sensitive to the electromagnetic fields around PC screens, folk that are

sensitive to mobile phone masts, those who can sense Tetra masts, others who dread the proximity of DECT cordless phones, and now if Panorama is to be believed we have a whole new generation of school kids affected by Wi-Fi.

Adding to the sense of unease, that this was a program designed to make a story up rather than report the facts, the show featured a self-appointed "expert" who turns out to be Alasdair Philips of Powerwatch, a man who leads the campaign against WiFi. In the show, you can see him and Panorama's reporter walking around Norwich with a special "radiation monitor". Radiation, incidentally, is their favourite word, and they used over 30 times. Although Wi-Fi is "radiation" in the same sense that light is, the word radiation actually covers everything from the very dangerous to the harmless: from gamma rays and x-rays, through visible light to broadcast radio, to the warmth and glow from the fire in your living room. In my experience public anxiety about cell phones and Wi-Fi is largely

due to misuse of the word "radiation", implying radioactivity. Radioactive emissions are dangerous even at low doses, but the word radiation actually covers everything from the very dangerous to the harmless.

Anyway back to Panorama. "Its well into the red there," says reporter Paul Kenyon, holding up the detector. That sounds bad. Well into the red on what? It's tricky to calibrate measurements, and to decide what to measure, and what the cut off point is for "red". Panorama's readings were "well into the red" on "The COM Monitor"; a special piece of detecting equipment designed from scratch and built by none other than Alasdair Philips of Powerwatch (above)!

What the program makers ignored was that we all, not just schools, live in an 'electro-smog' from high-power TV and broadcast radio transmissions. The fully digital DAB and DVB (Freeview) services, not to mention BSkyB, space and numerous other satellite broadcasters whose powerful signals hardly respect national boundaries. Powerful short-wave transmitters that reach the other

side of the world to provide overseas services and innumerable commercial communications services used by everyone from your courier company to the water board engineers checking the mains in your area; police, fire and ambulance emergency services; government communication data, air traffic control, radi navigation and scientific services throughout the radio spectrum and you can believe that the 'electro-smog' contribution from a nearby but tiny Wi-Fi system is miniscule in the extreme. Finally think about emissions from your very own microwave oven (mine runs at 900-watts on full power) whose frequency is very near that of your average computer Wi-Fi network, emitting just milli-watts (mW) and you get some idea of the false-science propounded in the program.

As one scientific writer and critic said "Homework for researchers — find out the acceptable minimum service area field strength for a typical broadcast TV or radio station and compare it with a typical domestic Wi-Fi figure and you'll be surprised."
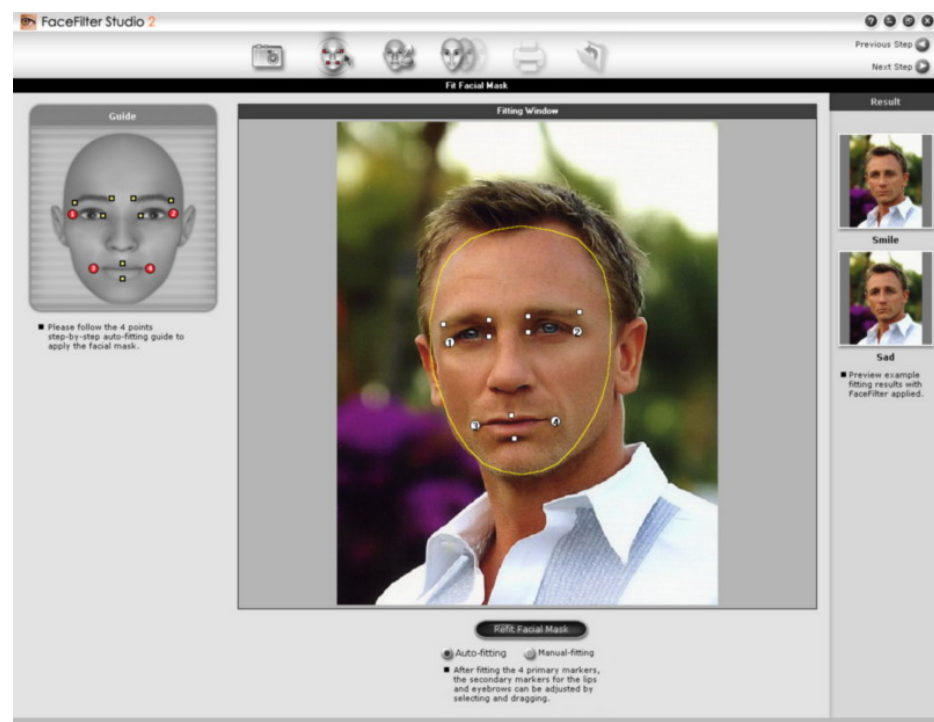
FaceFilter Studio 2 by Reallusion

Reviewed by Laurence Fenn

With digital photography becoming more and more popular, there are many programs to alter your photos, although they can be quite complex to use and expensive to buy. FaceFilter Studio 2.0 offers a much cheaper and quicker way to edit portrait photographs, with a step-by-step method for adjusting colour, brightness, skin tone and facial expressions. Whilst the results may not be more than a novelty, the simple interface makes the program easy to use.

Installation

The installation is marred by the need to verify the serial number online before the program is installed. I've come across this before with Acronis True Image, but with that program, once the serial number is verified you can install the software without the check. FaceFilter Studio 2 does not do this, and will refuse to install unless the serial number can be checked when the setup program is run. At least when you install Microsoft programs you can use them for a trial period before 'activating' them. I don't expect a graphics program to require an Internet connection unless it is checking for updates. When I installed it on a PC other than my main one I had to make sure I had up to date anti-virus software and a firewall before I ran the setup.

The program only really works with portrait images, where the person is looking straight at the camera and doesn't
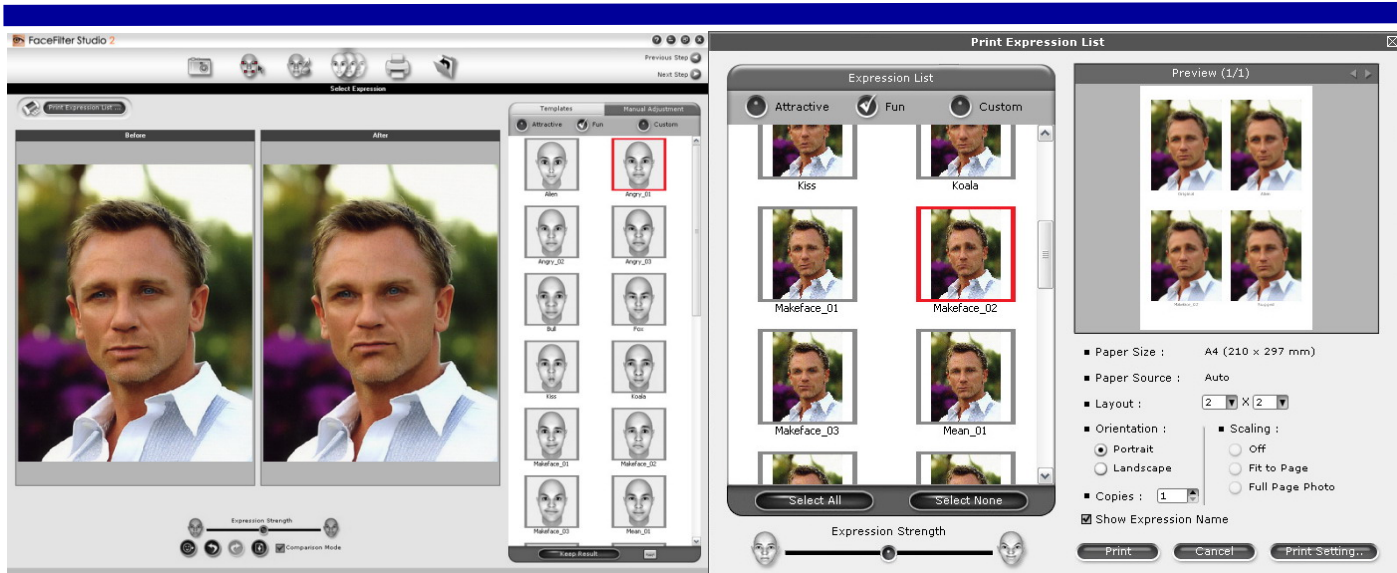

FaceFilter Studio 2.0 detects the edges of the face area:

have a strong facial expression. It does allow you to crop an image and rotate the head when you first select the image, but needless to say the sample images are all perfectly set to work with the program. None of them have any hair covering the face, or are wearing glasses. Using your own images will work fine as long as they meet these criteria. There are six icons

across the top of the window which lead through the process of altering your pictures, or you can click on the Next Step link on the right.
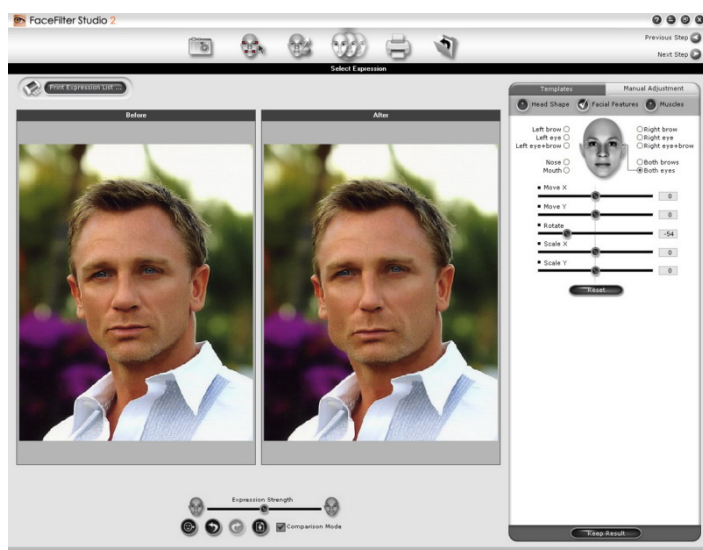
Detect the Edges of the Face Area

After loading your image, the next step

Face morphing 1 — Pre-set expressions menu

Final Selection — Print or export

Face morphing 2 — Manual controls to create your own expressions

(Continued from page 3)

attempts to detect the edges of the face area, and places twelve anchor points on the image, which can be manually moved into position to mark the edges of the eyes, eyebrows and mouth. These are the points that will be moved to create the expression morphs. The automatic setting only gets an approximate point, so I found that I had to adjust the points nearly every time. These are the only points the program works with, two for each end of the eyebrows, two for the ends of each eye and four for the edges and top/bottom of the mouth. Another program by Reallusion called CrazyTalk, which animates a digital photo by lip syncing it to an audio file has additional sets of points for you to fine tune the areas, but they obviously thought that was too much to use for FaceFilter Studio.

Skin Enhancement

The next step is Skin enhancement, which unfortunately is quite crude with the controls and has a small range of skin

tones. You can use the filter skin option to smooth away wrinkles and other blemishes using a masked blurring technique, as well as contrast reduction to get rid of any shiny patches. You cannot use a clone tool to remove skin blemishes or wrinkles, and the option to re-colour eyes is very crude, simply superimposing a coloured circle over the pupil. PaintShop Pro has a much more realistic eye colouring tool, and a skin smoothing tool and clone tool to remove blemishes is far better.

Face Morphing

The next step is the main point of the program, face morphing. As you only set 12 points on the face, which in reality has many more muscles, the results don't always look right. There is a library of pre-set expressions, divided into "Attractive" and "Fun", although to be honest some of the supposedly attractive ones were far from it. Whoever designed the 'sexy' presets must have had a different idea to what is sexy as I couldn't create a sexy image using it no matter what original image I started with.

Manual Controls

There are some manual controls to create your own expressions, allowing you to move elements of the face, rescale them or rotate them, but I still found it hard to create a natural looking face.

Making caricatures or people look like an alien is easy, and you can save the settings as a custom template. What you can't do is save the points on the face, so there is no save project option. If you close the program after changing a face you will have to start the process again from scratch. You can also change the strength of the changes that you make, from very subtle to extreme

The final section of the program allows you to print or export your edited image, and you can create a contact print page with several expressions. As the changes you make can be quite subtle, the more expressions you put on a page the less likely you will able to see the differences as the images will be smaller.

Conclusions

Reallusion FaceFilter Studio 2.0 is easy to use, but very limited. If you want a serious image editing program, you should choose something else that is designed for the job. It doesn't give the best results for red eye reduction, wrinkle removal, skin toning and iris colouring but can produce great results when changing the facial expression. The program is good for portrait images, as long as the subject faces the camera, doesn't have anything covering the face and is light in skin colour. Something I did notice was that the default image is a light skin coloured woman (Caucasian), whereas the default face in Crazy Talk (by the same company) is an African American.

Pricing and Availability

£24.99 inc VAT and delivery from Amazon.co.uk

Diskeeper 2007

Reviewed by Tony Hawes

Introduction

The hard drive of your computer is constantly writing and erasing information as you save and delete files, surf the Internet and so on. What this does to your hard drive is create gaps or spaces that used to be filled by a file or program that is now deleted. All of this makes for a pretty fragmented hard drive making access to your existing files and programs slow. When you defragment, you basically consolidate all of your files and programs thus making it easier and faster for your PC to access and or write data to your files.

Microsoft has always included a defragmentation program / tool with their operating system. Windows XP and Vista are no exception. If you defrag your files regularly by accessing the Windows XP Defragmenter (Start/All Programs/Accessories/System Tools/Disk Defragmenter) you are presented with an initial "splash" screen which if you look closely shows that Microsoft's Disk Defragmenter has been licensed from Executive Software, now Diskeeper Corporation. If the splash screen rushes by too quickly access the Disk Defragmenter as above and then click on the 'Help'.menu, this shows graphically that in 2001 Microsoft licensed the Defragmenter from Executive Software, now Diskeeper Corporation.
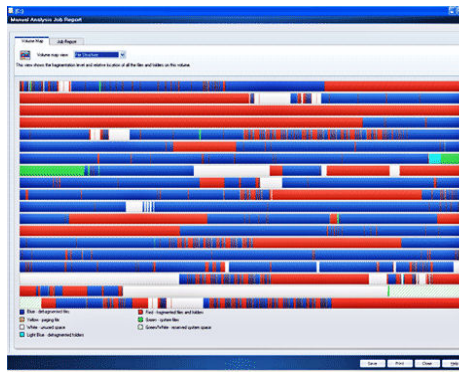
Windows XP Disk Defragmenter

The Windows XP Disk Defragmenter does an adequate job but requires all your resources as it plods away defragging your files and data. Similarly if you have Norton Speed Disk which comes with Symantec's Norton SystemWorks you still need to allow it exclusive rights to the computer while it does its stuff. Often I've wanted a tool that defrags in the background as I get on with my work; well help is at hand as Diskeeper Corporation Software has just such a tool in the form of "Diskeeper 2007".

A New Approach to Defragmenting

Diskeeper has an entirely new approach

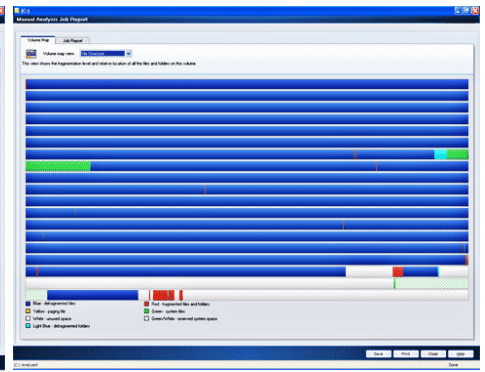Screen shot of a heavily fragmented drive. Without regular defragmentation a drive accumulates fragments scattered throughout the drive and you wonder why performance keeps dropping. A drive fragmented like this slows the performance of your system and can cause your PC to crash. Heavily fragmented files are shown in red

to defragmenting when compared to what you may be accustomed. Diskeeper was designed to allow automatic defragmentation in the background whilst at the same time not impacting resources as you use other programs. For Small Business and Home users Diskeeper comes in three flavours, Pro Premier, Professional and Home. Pro Premier was supplied for review, the main difference between this version and the 'Home' version apart from price is that Pro Premiere comes with a utility called I-FAAST 2.0 (Intelligent File Access Acceleration Sequencing Technology) specifically developed to accelerate the speed of access to your system files in order to meet the heavy workloads of file-intensive applications. I-FAAST intelligently monitors file usage and reorganises the files that are used most for the fastest possible access. Users of applications such as CAD/CAM, database applications, and graphic and video intensive applications will experience an noticeable increase in speed and response. Remarkably, I-FAAST 2.0 can actually boost file access and creation speeds above and beyond the capabilities of the system when it was new – as much as 80% faster in some cases

Diskeeper 2007 also comes with InvisiTasking technology which allows vital system performance enhancements, including defragmentation, to occur in real time, on-the-go. InvisiTasking undetectably taps into unused system resources, providing truly transparent system maintenance.

Diskeeper Press Release:

"Diskeeper Corporation has brought unique and innovative software to the defragmenting world. Diskeeper 2007 has been released and this new version is already experiencing a tremendous success among its users. So what makes Diskeeper 2007 so unique? Diskeeper 2007 is the first truly automatic defragmenter which defragments
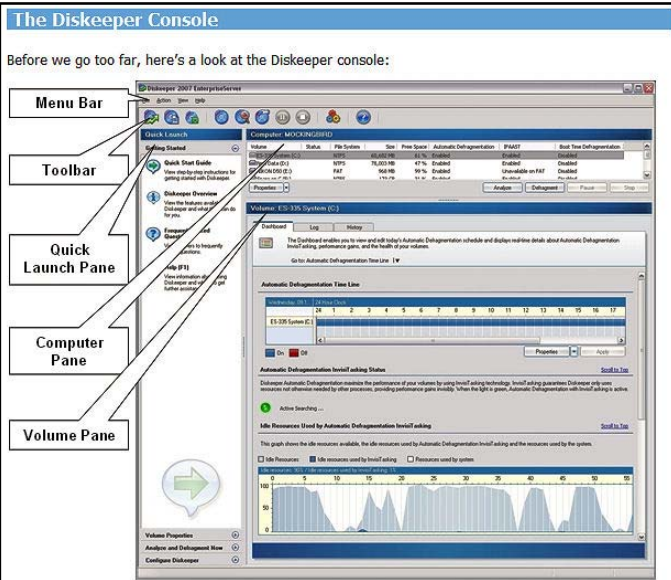

The same system after defragmentation by Diskeeper. Diskeeper puts the pieces of the file back into a contiguous state thereby increasing the speed and performance of your system which helps to alleviate performance related issues.

files on the go without any impact on the system. In the past defragmentation software has been designed to run manually. This meant that whilst defragmentation was taking place resources were being used regardless of other demands on the system. This inevitably led to poor system performance and defragmentation jobs taking an unacceptably long time. Diskeeper's primary innovation was that it ran in the background, defragmenting files and free space periodically. Subsequent versions of Diskeeper introduced scheduling, which allowed the user to control when Diskeeper would run and when it would not. It also used I/O throttling which meant that Diskeeper would wait when production demands were using the computer's input-output resources. This therefore reduced the overhead of Diskeeper by utilising otherwise unused computer resources. With the new Diskeeper 2007 defragmentation software, innovative new technology such as InvisiTasking, allows you to defragment your computer automatically. This means that all you have to do is simply install the software and Diskeeper 2007 will do the rest. This is a major advancement from previous defragmenting software, where even though the software has worked in the background you still had to schedule it to defrag your computer. Diskeeper 2007 detects fragmentation the instant it appears and eradicates it on the spot. The most significant point is that it will do this without interfering with production at all. There is therefore no longer any need to worry that defragging your computer will lose you time or production, but instead makes Diskeeper Corporations "Set It and Forget It" trademarked phrase one you can rely on.

Remember how your computer ran when it was new? Now, with Diskeeper 2007 Home, you can breathe new life into your system and make it run better than it ever has before. Even if your system is brand new, Diskeeper 2007 Home is the best way to keep it that way

The Diskeeper Console

Before we go too far, here's a look at the Diskeeper console:

The Diskeeper Console is where you control all the activities of Diskeeper.

Menu Bar — the Diskeeper menus provide an alternative way to access the features available from the toolbar and Quick Launch pane.

Toolbar — the Diskeeper toolbar gives quick access to commonly-used controls. Note that all the functions on the toolbar are available from the Diskeeper menus, and many can also be activated from the menu displayed when you right-click on a selected volume in the volume area.

Quick Launch Pane — The Quick Launch pane is where you'll find easy access to the commonly-used Diskeeper features, as well as several shortcuts for performing common tasks.

Computer Pane — The Computer pane shows all the supported disk volumes detected on your computer, and defragmentation status and general information about each volume.

Volume Pane — the tabs in the Volume pane area allow you to easily change between the Dashboard tab, the Log tab, and the History tab.

(Continued from page 5)

and protect your investment for years to come. Diskeeper 2007 Home was designed to keep your computer operating at peak performance, continuously and automatically, without further input from you after it is installed. Diskeeper 2007 Home is an ideal choice for the home and small office because the software does all of the work. Simply install Diskeeper 2007 Home and your computer will run faster and more reliably than it ever has before."

In Use

Installation went like a breeze, the only snag was that Diskeeper have jumped on the Activation band-wagon and it was necessary to activate. Like Windows XP or Vista, you can use Diskeeper for 30-days, but after that it requires activation or it reverts to limited functionality in Demo Mode.

One feature separates Diskeeper from the basic Windows defrag tool and Norton Speed Disk. Diskeeper 2007's Automatic Defragmentation tool together with InvisiTasking monitors the level of fragmentation of your hard drive in real-time utilising idle system resources. It then automatically defragments your drive in the background when needed by utilising those idle resources not in use by other processes, allowing vital system performance enhancements, including defragmentation, to occur in real time, on-the-go, whilst you do other things.

When I reviewed Diskeeper 8 a couple of years ago it came with smart scheduling (or "Set It and Forget It") which automatically defragmented your drive when it detected high levels of disk fragmentation and the PC wasn't being used — when you went for a coffee break for example.

Real-time Defragmentation

New in this 2007 version of Diskeeper

Many user's believe that the 'built-in' defragmenter that comes with Windows is good enough — but there are several factors that need to be considered. It would be true if the built-in defragmenter was fast, automatic, and customisable. Unfortunately, the built-in defragmenter does not have any of these features.
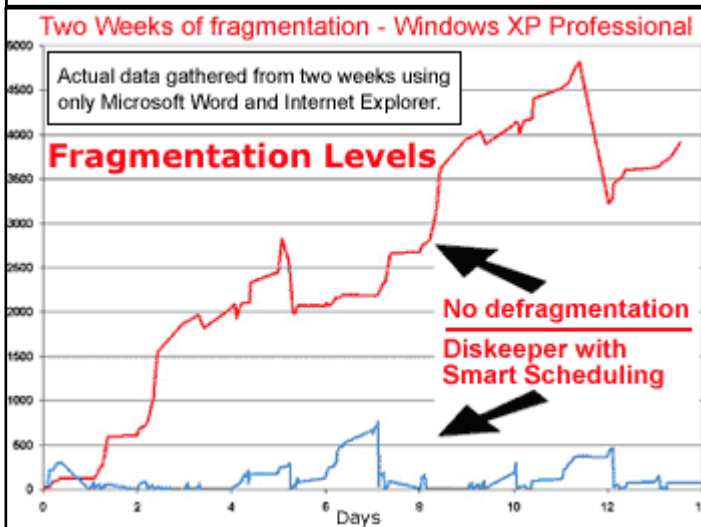
Fast Defrag: The built-in defragmenter takes many minutes to hours to run. *Diskeeper* completes its work in seconds to a few minutes.

Automatic Defrag: The built-in defragmenter requires that *you* keep track of fragmentation levels, *you* determine when performance has got so bad that it's time to do something about it, and then *you* manually defragment each drive using the built-in defragmentation tool. *Diskeeper* does all of this for you automatically. That's why millions of very happy customers call it "the Set It and Forget It" defragmenter. You have better things to do with your time than defragmenting disk drives.

Customisable: With the built-in defragmenter, you take what you are given (Don't complain, it's free…but). With *Diskeeper*, you get a defragmenter that will do everything for you automatically (and we do mean *everything*) or you can tailor its operation to suit your precise needs.

What's happening to your computer when you fall behind on defragmenting?

Many people don't realise how much of their computer's power is lost to fragmentation and how soon it happens. The graph below is the result of a two week experiment carried out by Diskeeper using only Microsoft Internet Explorer and Microsoft Word. The test was performed using an ordinary desktop computer.

Note that each test starts with zero excess file fragments. That means that each line represents the fragments generated from the RECENTLY created or modified files; in other words, these are files that were used and fragmented THAT DAY. These recent files are the ones you least want to be slow to access. These are the ones you want to be able to

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Toolbar Icons: Left to right — Automatic Defragmentation, I-FAAST, Boot Time Defragmentation, Manual Defragmentation Job Properties, Analyze, Manual Defragmentation, and Diskeeper Configuration Properties.

Home is 'InvisiTasking' a new feature that automatically handles fragmentation as it oc-

curs — you don't have to do a thing. Once set InvisiTasking defragments your hard drive on-the-fly with no input from the user. You can elect to do a manual defragmentation if you consider it necessary, but in my experience the automatic method is the best way of keeping your hard drives in shape.

The Diskeeper Console

The Diskeeper Console (Previous page) is where you control all the activities of Diskeeper. Once you've set it to the way you want it to work, just sit back and let Diskeeper get on with defragging you hard drive/s.

Analyse & Defrag

From the Diskeeper Console select the action you wish to take by clicking the appropriate icon and off it goes.

Boot-Time Defragmentation

One feature I've not mentioned is Boot Time Defragmentation. Boot-Time Defragmentation consists of three independent activities:

1. **Directory Defragmentation and Consolidation** — moves directories to a single location. On NTFS volumes, directories can be moved and defragmented online, which makes directory consolidation on these volumes unnecessary. However, Boot-Time directory defragmentation and consolidation can be useful on FAT volumes. The various editions of Windows write directories into random locations all over a volume. This, in effect, breaks up the free space on the volume. By grouping all the directories into a single location on a volume, larger areas of contiguous free space become available. Therefore, new files are more likely to be written to the volume in a contiguous manner. This also helps make Diskeeper more effective when it is run in either the Automatic or Manual defragmentation modes.

2. **Paging File Defragmentation** — defragments the paging file. Fragmented paging files can slow Windows performance. They can also hurt the effectiveness of Diskeeper, since the unmovable paging file fragments break up the free space on the volume. By defragmenting your paging file, you can help maintain peak Windows performance, and help Diskeeper run better at the same time. After a paging file has been defragmented, it should remain contiguous unless its size is changed.

3. **Master File Table (MFT) Defragmentation** — defragments the Master File Table (MFT). The MFT is a critical section of Windows NTFS disk volumes. The MFT is used by the NTFS file system to locate files on a volume, so fragmentation of the MFT slows the retrieval of files on the disk— whether these files themselves are fragmented or not. Defragmenting the MFT will improve the overall performance of the volume.

On Windows XP, and Windows Server 2003 most, but not all of the Master File Table can be defragmented by Diskeeper during normal Automatic or Manual defragmentation operations. Boot-Time Defragmentation is still required to fully defragment the MFT, but it usually does not need to occur as often as it does on Windows 2000.

Boot-Time Defragmentation opens up larger areas of contiguous free space for new file creation and modification.

Boot-Time Defragmentation can take a long time, especially on very large disk volumes that are severely fragmented. Therefore, before running it, it's necessary to:

• Run the system "CHKDSK" utility before defragmentation option. This will help prevent vital files from being moved to bad disk sectors.

• Schedule the Boot-Time Defragmentation on weekends or other time when the machine is not needed immediately.

Features & Typical Prices: Home £23.74; Professional £47.60 and ProPremiere £95.20.

• Perform the Boot-Time Defragmentation on only one disk volume at a time

Conclusion

I have nothing but praise for Diskeeper 2007. Diskeeper is an impressive program. It offers many more features and a much faster defragging speed than the defragmentation utilities built-in into Vista, Win XP or in Norton's Speed Disk. The sub-menu options on Diskeeper's Console are a little daunting at first, but one you get the hang of it, it works wonders. With InvisiTasking set you needn't do anything more to ensure your hard drives are kept in a healthy, sound and defragmented state.

The bottom line is that Diskeeper's automatic defragmentation does work on my Vista equipped desktop computer, performance slow-downs because of a badly defragmented drive are a thing of the past and it keeps my system is running like the day I bought it. In these circumstances it's recommended.

Pricing and Availability

Diskeeper comes in several flavours but the one that is likely to interest most home users is the 'Home' version. Oddly its not sold separately, but is only available as an 18Mb download from Diskeeper's European Sales site here:

http://www.diskeepereurope.com/en/01_ho/xhtml/purchase_dk.htm.

Expect to pay £23.74.

Microsoft AutoRoute 2007   Reviewed by John Childs

Introduction

AutoRoute has been going for many years now. A review of the 2004 version appeared in the Dec 2003/Jan 2004 edition of ROM, the 2005 version in the Dec 2004/Jan 2005 edition of ROM and the 2006 version in the Feb 2006/Mar 2006 edition of ROM. Each update is remarkably similar to its predecessor and it is quite difficult to see exactly what has been updated. The Microsoft web pages however tell me that changes have been to road data as in the tables alongside:

The following countries are covered down to street level	
Austria	Netherlands
Belgium	Norway
Denmark	Portugal
Finland	Spain
France	Sweden
Greece	Switzerland
Italy	UK
Luxembourg	

The following countries are also covered, but only down to main road level	
Andorra *	Latvia *
Bulgaria *	Liechtenstein
Croatia *	Lithuania *
Czech Republic	Monaco
Estonia *	Poland *
Guernsey	Romania *
Isle of Man	San Marino
Jersey	Slovakia
Hungary *	Slovenia *
Ireland	Vatican City
* New for 2007	

In Use

The program comes on a single DVD and is packaged with a small ¨get you started¨ booklet. Installation went well, after the automatic installation of the Microsoft .net framework. The complete install, which obviates the need to insert the DVD every time you use the program, occupies 1 Gig of hard-disk space.

Hardware requirements are quite modest, requiring at least a Pentium II PC.

The program comes in either of two packages, one with the program alone, the other with a GPS receiver. With the latter you can take your lap-top on the passenger seat and it will give you driving directions both on screen and verbally. I did not have the GPS device to test so I cannot comment on how well it works. However, I would imagine that this is quite a cumbersome way of finding your way about and in this day and age of portable sat-nav devices it is not an ideal way of getting your directions. I must say, however, that your average sat-nav does not have as extended a coverage of European maps as AutoRoute 2007 does, and sat-navs are much more expensive.

I fed in various journeys that I knew well and AutoRoute came up with them all using directions that were straightforward. I printed them out and used them on actual journeys and had no complaints about the clarity of the directions or about the actual routes used.

The program did all that I have come to expect of it, and there is little I can add to the previous reviews which I have mentioned. Microsoft does not indulge in flash looking upgrades to this product, merely refining it every so often in very many small ways. It does exactly what you expect, and it does it well.
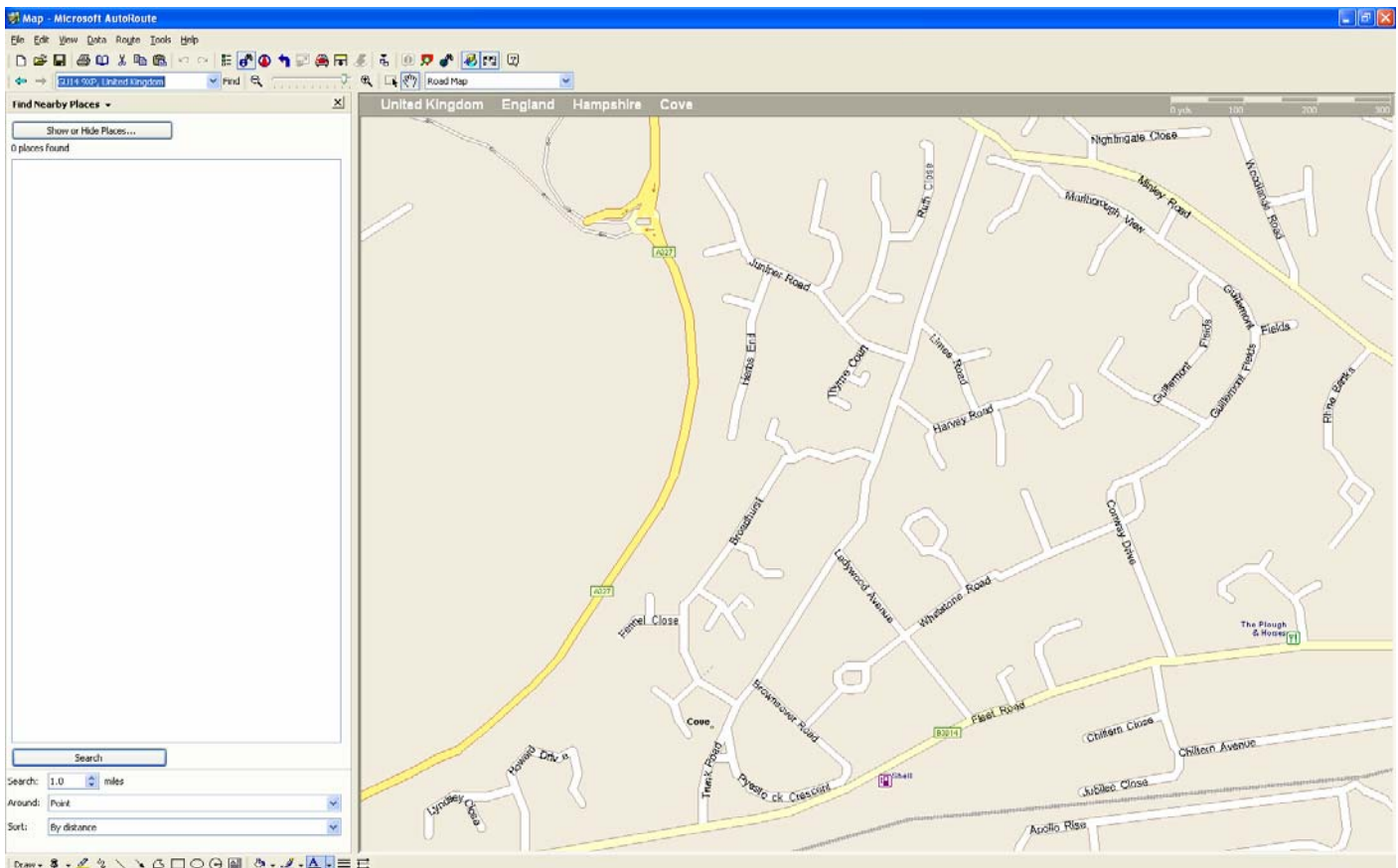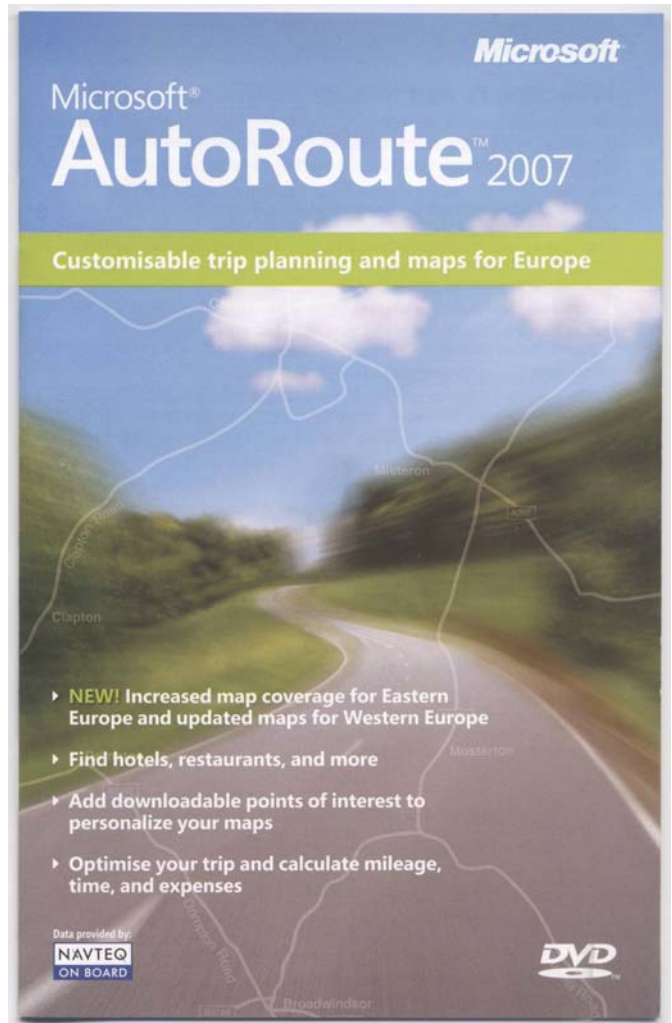
Conclusions

This is not an expensive product and if you do not have internet access, then I think it is value for money for what it does. If you do have internet access, then there are a few web sites, such as the AA and the RAC, which will provide you with route directions for nothing, although they are nowhere near as flexible as AutoRoute 2007.

If you are venturing abroad and can carry a lap-top and a GPS device then this program will probably be the cheapest way to go.

Price and Availability

£34.98 incl. VAT from Amazon (free delivery). With a GPS receiver, £70 incl. VAT from www.misco.co.uk (£5 delivery charge).

Microsoft

Microsoft® AutoRoute™ 2007

Customisable trip planning and maps for Europe

▸ **NEW!** Increased map coverage for Eastern Europe and updated maps for Western Europe

▸ Find hotels, restaurants, and more

▸ Add downloadable points of interest to personalize your maps

▸ Optimise your trip and calculate mileage, time, and expenses

Data provided by:
NAVTEQ
ON BOARD

DVD

Acer — New Consumer Notebook Series

Acer presents new Consumer notebook series based on the state-of-the-art "Intel "Santa Rosa"" platform.

Acer, the third largest PC vendor worldwide, is introducing new Aspire notebooks based on the fourth-generation Intel Centrino platform ("Santa Rosa"). These products express a unique identity and bring innovation into the hands of people who enjoy multimedia power as much as they do good design.

With its long history of bringing new technology to the market first, Acer has incorporated the new Centrino architecture into the new Aspire notebook series to be launched this year. More importantly, all of the new Aspire notebooks are based on the innovative Gemstone design concept, a theme that breaks away from tradition, looking beyond mere benefits and technological advances.

Acer has revolutionized the look of its Aspire notebooks by marking a clear product identity around the Gemstone design concept. The contrast between the high-tech, dark and glimmering exterior and the perfection of the pearl-grey with Cerami-Finish interior is as unexpected as it is remarkable. The combination of different colours and materials highlights the notebook's smooth, rounded and natural shape while special detail treatments – such as the 3D shadow effect of the logo – endow the new Acer Aspire with far greater expression

A quick look at the features confirms the promise of the new design: a glossy display with CrystalBrite technology, Dolby Home Theater Virtual surround sound technology, Arcade Deluxe multimedia suite, intuitive media keys and video conference capabilities all combine to make the new Aspire line-up a stunning multimedia paradise.

On selected models the Aspire range is equipped with Intel "Robson" technology. "Robson" is the code name for a new Intel platform technology, called TurboMemory, which uses non-volatile memory (Flash memory) to increase system responsiveness. It enables the majority of application workloads to be written and read from a system cache instead of the HDD. "Robson" technology also offers increased power savings.

The Consumer Portfolio

Aspire 5920

The new flagship in the Aspire range. The new Acer Aspire 5920 is the first model to launch with Acer's new, groundbreaking, Gemstone design. Tailored to meet the needs of the advanced home entertainment user it comes packed with all the latest features on the market today and is powered by the Core 2 Duo processor. It is

Acer Aspire 5920 — a white notebook!

the perfect multimedia-mate sporting a 15.4" wide Acer CrystalBrite display powered by the NVidia GeForce 8600M-GT graphics card with up to 512MB of dedicated VRAM. The new Aspire 5920 comes with Dolby Home Theatre Virtual Surround sound which offers a superior audio experience and combined with the optional HD DVD drive it will provide an unsurpassable entertainment experience.

Aspire 5720

The new Aspire 5720 is a clear example of's new Gemstone design philosophy the choice for that are looking for state-of-the-art technology and multimedia features. Available with either shared graphics or latest powerful ATI cards with up to 256MB of dedicated memory the Aspire 5720 offers fantastic value for money. Complete with a 15.4" Acer CrystalBrite display, Acer CrystalEye camera and Dolby Digital Live audio it will be the perfect companion for your everyday entertainment.

Aspire 7720

For intensive multimedia users the panoramic-screen Aspire 7720 multimedia notebook with Gemstone design is a perfect fit. Taking advantage of Intel Core 2 Duo processing power combined with the 17" widescreen display, with either shared graphics or the latest ATI graphics cards with up to 512MB of dedicated memory, multiple storage solutions (including a second hard disk drive option), optional DVB-T TV Tuner, integrated CrystalEye camera and Dolby Digital Live audio, the Aspire 7720 offers solid performance for even the most demanding multimedia users.

Aspire 9920

The Aspire 9920 has been designed for consumers that want the ultimate in entertainment.

It features a stunning 20" wide display managed by the NVidia GeForce 8600M-GT graphics card with 512MB of dedicated

VRAM and up to 2304MB TurboCache. Being a highly versatile system, the Aspire 9920 also offers digital terrestrial television through the integrated digital (DVB-T) TV Tuner, excellent storage capabilities with up to two large hard disks, and cutting-edge Video and Voice over IP communication thanks to the built-in Acer CrystalEye camera and the optional Acer VoIP phone. Immerse yourself into a high-definition audiovisual experience with the HD-DVD drive in combination with the Dolby Home Theatre Virtual Surround sound.

The Aspire series comes with Microsoft, Windows Vista Home Premium, Windows Vista Home Basic or Windows Ultimate edition preinstalled. Additional installed software includes Acer Empowering Technology, Acer GridVista, Acer Video Conference Manager, Microsoft Office Ready 2007, Adobe Reader, CyberLink Power DVD, NTI CD-Maker and Norton Internet Security.

All Acer notebooks come with a standard one year Carry In (ITW — International Travellers Warranty which can be extended to three years' cover with the Acer Advantage service that also covers accidental damage to the notebook.

SoHo — Small Office—Home Office

The TravelMate 7720 and TravelMate 5720 are SoHo versions of the Aspire series of notebooks. The Acer TravelMate 7720 and 5720 series are designed for in-office and outbound business use, and are the ideal instruments for mobile professionals looking for a professional notebook that offers the perfect balance between performance and reliability, manageability and connectivity, independence and security. The Acer TravelMate 5720 series uses the innovative Intel Core 2 Duo processors with speeds of up to highest available GHz level, the new Intel GM965 Express Chipset and provides full wireless connectivity through the Intel PRO/Wireless 3945ABG network connection chipset sup-

porting Acer SignalUp wireless technology.

The exclusive design, the performance, the technological solutions and reduced weight (approximately 3.0kg) make the TravelMate 5720 the ideal solution for mobile professionals looking for a fully equipped notebook with all the advantages of modularity, security and comprehensive connectivity.

TravelMate 7720 with 17″ screen

TravelMate 7720

Building on the growing demand for larger screen size across a wide range of systems and configurations, the TravelMate 7720 notebook family is equipped with a 17" colour TFT LCD display. The TravelMate 7720 is specified with Intel Core 2 Duo processors with speeds of up to 2.4GHz, the new Intel GM965 Express Chipset and up to 800MHz FSB. Professional users who need to seamlessly switch from different connectivity options will find the new TravelMate 7720 series a welcome work partner, as it offers a complete range of flexible connectivity solutions including: WLAN (Intel PRO/Wireless 3945ABG network connection chipset), WPAN with the built-in Bluetooth 2.0 module (on selected models), LAN connection with Gigabit Ethernet cards and standard connectivity with the integrated modem.

The TravelMate series comes with Microsoft Windows Vista Business, Windows Vista Home Premium, Windows Vista Home Basic or Windows XP Professional Edition preinstalled. Additional installed software includes Acer Empowering Technology Acer GridVista, Acer Video Conference Manager; Microsoft Office Ready 2007, Adobe Reader, CyberLink Power DVD, NTI CD-Maker and Norton Internet Security.

Pricing and availability to follow.

Santa Rosa is the fourth generation of Intel's Centrino platform. Time scale of its introduction is shown above.

Intel's Santa Rosa (Centrino Pro) Platform

The code-name "Santa Rosa" refers to the fourth-generation of Intel's Centrino platform, which was released on 9 May 2007.

"Santa Rosa" features an updated mobile Core 2 Duo microprocessor. Notably, the Front Side Bus speed has been increased to 800 MHz. The chipset can also dynamically change the FSB speed to save power. Other power savings come from an Enhanced Sleep state where both the CPU cores and the chipset will power down.

Intel will also implement Dynamic Acceleration Technology with the "Santa Rosa" platform. This technology allows single threaded applications to execute faster. When a single threaded application is running the CPU can turn off one of the CPU cores and overclock the active core. In this way the CPU maintains the same Thermal Profile as it would when both cores are

active. Many expect "Santa Rosa" to perform well as a mobile gaming platform due to its ability to switch between single threaded and multithreaded tasks.

The "Santa Rosa" platform is branded as "Centrino Pro" when combined with the enhanced security technologies Intel introduced with vPro and will be called "Centrino Duo" when they are not used.

"Santa Rosa" Features

The following features are included

1. Second generation Intel Core 2 Duo (code-named "Merom") mobile processor. The processor is similar to and still carries the codename Merom in common with that used on the Napa platform although the new processors connect to the motherboard with Socket P.
2. Intel Mobile 965 Express chipset (code named "Crestline") with Intel's GMA X3100 graphics technology and ICH8M Southbridge, 800 MT/s front side bus with Dynamic Front Side Bus Switching to save power during low utilization, and
3. Intel PRO/Wireless 4965AGN IEEE 802.11 a/b/g/n mini-PCIe Wi-Fi adapter (code named "Kedron"). This Wireless-N technology boasts a 5X speed increase, along with a 2X greater coverage area, and supports 2.4 GHz and 5 GHz signal bands, with enough bandwidth for high definition audio and video streams.
4. NAND flash-memory caching branded as Turbo Memory (code-named "Robson")
5. RAM support for DDR2-533 and DDR2-667 SODIMM,
6. EFI-compliant firmware, a successor to BIOS.
7. Intel Dynamic Acceleration (IDA), better Windows Vista Aero support.

A refresh of the "Santa Rosa" platform scheduled for release in late 2007 will upgrade Centrino to the 45nm "Penryn" Processor

Pinnacle Systems Introduces the Next Generation of Video Editing Software

Pinnacle's new products provides video enthusiasts with the latest technology with easy-to-use editing software.

Avid Technology, Inc. has announced that its Consumer division, Pinnacle Systems, Inc., has launched the next-generation Pinnacle Studio line of video editing software. The Pinnacle Studio 11 family is designed to meet the needs of a wide range of video enthusiasts with three products – Studio, Studio Plus and Studio Ultimate. The product family offers powerful video creation and sharing capabilities that address the latest consumer video trends, including support for new HD media types like AVCHD, the new operating system Microsoft Windows Vista, and Web publishing for online video sharing.

"There are key trends happening from High Definition becoming truly accessible for video consumers, the proliferation of user generated content on the web and the introduction of new operating systems like Windows Vista," said Jeff Hastings, general manager for Pinnacle Systems. "Over the past months, we have focused on bringing the best tools to our Pinnacle Studio application for our users to take full advantage of these latest trends in video creation and consumption. AVCHD editing, HD DVD disc burning and one-click publishing to the web are among the new capabilities we are introducing with Pinnacle Studio 11, while preserving the intuitive, user-friendly experience for which our Studio software has become famous."

Pinnacle Studio 11

Designed to simplify video editing for entry level users or those who want to move beyond the capabilities of free solutions, Pinnacle Studio contains several automated and time-saving features that let customers archive their video memories or create entertaining movies in a few easy steps. The new one-click Web publishing feature enables users to quickly publish their videos to Yahoo! Video for public viewing.
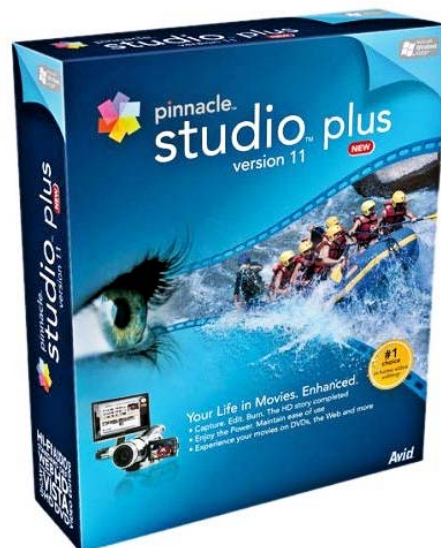
Pinnacle Studio Plus — Version 11

Pinnacle Studio Plus includes all of the intuitive features of Pinnacle Studio, and adds a host of advanced editing, effects and authoring options. The extensive range of features includes a complete HD workflow, with native HDV and AVCHD editing, and HD DVD disc burning. Users can burn discs on a standard DVD burner using standard DVD discs, and depending on the format, can play them on the latest HD DVD players.

Pinnacle Studio Ultimate — Version 11

New to the Pinnacle Studio family, Pinnacle Studio Ultimate combines Pinnacle Studio Plus with a selection of highly-acclaimed, fully integrated professional audio and video tools. Designed for the most serious video enthusiasts who demand more control over the quality and look of their video creations, Pinnacle Studio Ultimate includes BIAS Inc.'s SoundSoap audio cleaning tools, dramatic lighting and 'film look' effects from ProDAD VitaScene, precision Panning and Zooming with StageTools MovingPicture, and a Chroma Key green screen backdrop for easy-to-achieve professional results.

The entire Pinnacle Studio version 11 line includes other enhancements that improve the video editing experience. For example, the scalable user interface not only lets users keep the tools at their fingertips while they get in close to their work-in-progress, but it integrates easily with today's widescreen monitors. In addition, the

Scorefitter music generation tool will create a soundtrack to match the exact length and mood of a video almost instantly. Scorefitter's large sample file size (48k) equates to higher fidelity results, so home movies will sound better than ever before. And, with more than 40 source tracks and a wide range of variations, the possibilities are nearly infinite. This latest release also demonstrates improved loading and file export speeds, and is compatible with the Windows Vista operating system.

Pinnacle Studio Version 11 Family Availability

The Pinnacle Studio, Pinnacle Studio Plus and Pinnacle Studio Ultimate is priced at £39.99, £69.99 and £89.99 respectively and are available now.

There are reduced prices for upgrades from Pinnacle Studio 10 to version 11.

Review to follow in next issue of ROM.

Tips for Tweaking Your System to Run Faster

It may sound like one of those hack phrases you hear at cocktail parties, but "speed is where you find it" is definitely a truism of computing. There are more ways to incrementally bump up your computer's performance than you can shake a memory stick at, and your only real challenge is to pick and choose what makes you feel comfortable.

Somewhere among all of the tips that follow, you will start to notice that your PC is running more efficiently. It doesn't mean you'll be able to run Vista Ultimate on an 80486 box very well, but you may be able to put off buying that new PC for six months to a year.

1.   Tweak Your Processor

The easiest and most noticeable performance boost comes from overclocking your CPU. This involves going into your computer's BIOS and tweaking a few processor settings. Some BIOS (not motherboard!) manufacturers have made the job relatively easy by providing you with selections for the percentage of increased performance you want. Once you decide, the BIOS makes the other needed changes on its own. In general, most processor models will uptick about 5% to 10% before you reach the point where you actually need to know what you're doing.

While no two BIOS manufacturers will

necessarily give you the same named options or even procedures, typically, once you've entered your BIOS' setup, you'd look under the Advanced section for a "Jumperfree" or "Processor" configuration option. If you don't see a percentage request or at least a normal/overclock option, consider leaving things alone unless you're versed in the art. Overclocking your CPU can involve changes to the processor's multiplier, the bus speed that it clocks against and the actual supply voltage to the chip. At that point, you've reached the "Do at your own risk," phase of the task.

The downside is that you can over-overclock a

processor. The best of such a situation is that your computer will not reboot and you'll need to reset everything back to the way it was. If we lived in a perfect world, all you'd need to do is shut the computer off, power it up again and the BIOS would do the reset for you. That does happen. However, in the silliest situations, you'll need to find the motherboard jumper that clears the BIOS options, remove it, re-seat it on a different set of pins for a specific interval of time and then put it back the way it was originally before restarting your PC.

Although overclocking is technically free, it's not devoid of additional costs. At the very least, you really should consider buying a better CPU cooling mechanism. After all, running faster through overclocking also means your processor is running hotter. And be aware that no matter how many winks and nods you may get at the time of purchase, if you overclock your processor to the point of extinction, you probably will get some major flak from most resellers and/or manufacturers should you try for a warranty replacement. (Also be aware that CPUs tend to respond to overclocking better at the beginning of their life cycle, rather than later when processes and procedures have settled down and are stable).

2.   Upgrade your CPU

As we slowly recover from the recent sky-high pricing that Intel and Advanced Micro Devices inflicted on us, just buying a new, faster CPU for your rig might seem like an easy option. It is and it isn't.

You'll have to find one that fits the CPU socket on your motherboard. Right now, that will be easier for older Intel systems than it will be for AMD, which has recently changed its socket design. You'll also need to find a processor that's on relatively the same technology level your motherboard was designed to handle.

New features implanted in a CPU are great and can add significantly to its performance—but if the motherboard's chip set doesn't know what to do with them, you're wasting the improvements. The biggest demonstration of that concept was AMD's dual-core X2 release. At the time, "Only a BIOS upgrade is needed," was the word of the day. "Several" were more likely, and a new motherboard with a revised chip set was even better.

Don't assume that you'll need a numerically faster processor. Suppose your current CPU is built on a 90nm die. If you can find a revision on a 65nm die, the data passing through it will have approximately 30% less distance to travel. It will work more quickly just on that basis alone. Don't expect that to translate into a direct 1:1 performance improvement. It never does.

What it means, however, is that a CPU running at the same speed on a smaller die will be incrementally faster—and, conversely, you're free to even clip a few 1/100ths off the matched rated speed when you go to purchase your new processor. You'll save some money on the cost of the chip in the deal, and possibly still get things done faster.

3.   Add More Memory

Memory is another path to speed, and with memory prices dropping somewhat, it's often a less-expensive solution than a CPU swap. (However, if you're looking at high-end, heatsink-clad, LED-blinking, water-jacketed memory modules, you'll probably pay through the nose for them. Unless you're engaged in extreme overclocking, you have no need for any of these extra gizmos.)

What's the deal? Well, take a Vista system where one of Vista's sidebar gadgets dutifully reported that 51% of the memory was being used. That was for a 1GB computer on which nothing was running except Vista. What's the potential problem? Vista—and XP—don't like to run out of memory. When either is in danger of doing so, it switches to using your hard drive as if it were memory. The process, usually called "swapping," is orders of magnitude slower than it would be if done in DDR memory.

Despite Microsoft's somewhat benign (and some might say naïve) memory size recommendations for its operating systems, if you're doing anything more than surfing the Internet, it's probably in your best interest to stock at least 2GB of memory in your PC at this point.

As for memory speed, match it to what's currently in your computer. Buying faster-rated memory only works if your motherboard can use it. Likewise, don't mismatch the speed of new memory modules with what's already in your computer. Like driving a Ferrari in traffic, you can only go as fast as the car in front of you.

4.   Get a Better Graphics Card

One of the easiest roads to raising your overall computing performance is through your graphics card. Of course, with some high-end graphics cards costing more than some entry-level computers, it may not seem as if it's the most cost-effective approach. Fortunately, the rarefied atmosphere in which these high-end and highly expensive cards exist is not the only option.

You'll find a plethora of upgrade applications in the £60 — £120 range — and you're not just limited to PCIe versions. For whatever reasons (and probably because there are still plenty of motherboards able to handle them), high-end AGP graphics cards are also available. Some of these can rival their PCIe counterparts' performance, and most will amaze you with their visible increase in performance.

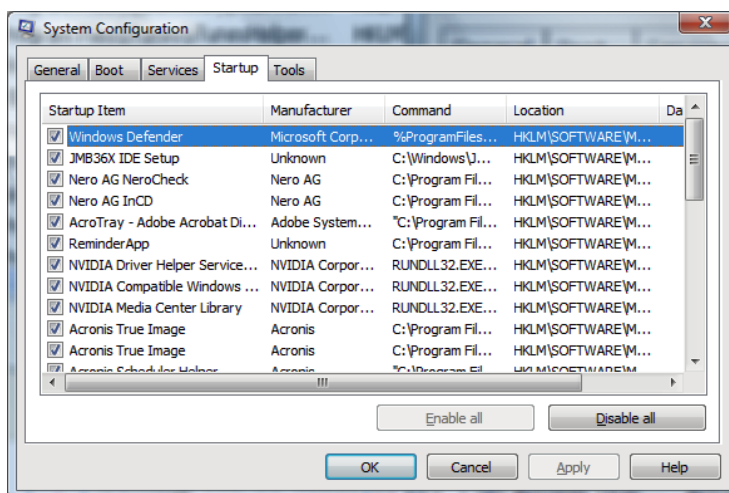Of course, don't overlook the easiest approach: Update your graphics driver. It may

not seem like a big deal, but the performance difference between a computer that's a few updates behind and one that has a current graphics driver can tip into double-digit percentage points.

5.   Free Stuff

Finally, we get to the free performance upgrades. Overclocking and upgrading graphics drivers are two aspects already covered. But your computer could be a gold mine of other performance improvements as well. Look down at the right side of your taskbar. Do you have a conga-line of icons sitting there? Not all of them are simply benign little faces staring up at you.

If you roll your cursor over the group and see the word "Updater" or "Monitor," you've probably found icons for active software that, at some time or another — if not always — is occupying a few bits of memory and stealing some processing power as well.

Likewise, you should also look through the list of active processes in Windows Task Manager. (Press Ctrl-Alt-Del and click the Task Manager button to get there.) If you haven't a clue to what any of them are, take the easy way out — Google the process names. That will tell you what they are and what they do.

The "msconfig" utility Startup menu.

Getting rid of most of this stuff is relatively easy. Select the Run option from the Start-up menu, type in "msconfig," click OK and then select the Startup Tab in the box that appears. Match up the start-up software with what you've already discovered, or start Googling again if you find something new. Uncheck any box associated with software that you don't want to start when Windows does If you foul up and your computer starts hiccupping, just go back and start rechecking boxes until you've unmade your mistake.

Yes, it is all that simple. You're also going to make mistakes along the way and probably need to undo and restart things before you reach your final goal. Don't give up. By the time you've done all the tweaks and fine-tuned your PC, you'll have turned yourself into the person that friends and relatives always call whenever things are odd with their computers. — you hope! ..but then again …