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February 2008

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It's In The Air... ...Or Is It?

I WAS IN Boston, in a Mac store, buying myself a Macbook. At approximately the same time, not very far away, Steve Jobs pulled out the world's slimmest laptop from an envelope and revealed it to the world.

The reason I was out shopping for a new laptop was because I was tired of lugging my aging Lenovo around, and my shoulders were pleading for some respite. Apart from just looking cool, the smallest laptops are just extremely convenient.

While out shopping, I was quite taken by the Sony Vaio TZ series and the ASUS Eee. I remembered what Agent001 told me before I left: "There is only that much you can fit into this space, you know." Just a few days later, the guys at Apple seemed to disagree, and packed in so much more into so much less!

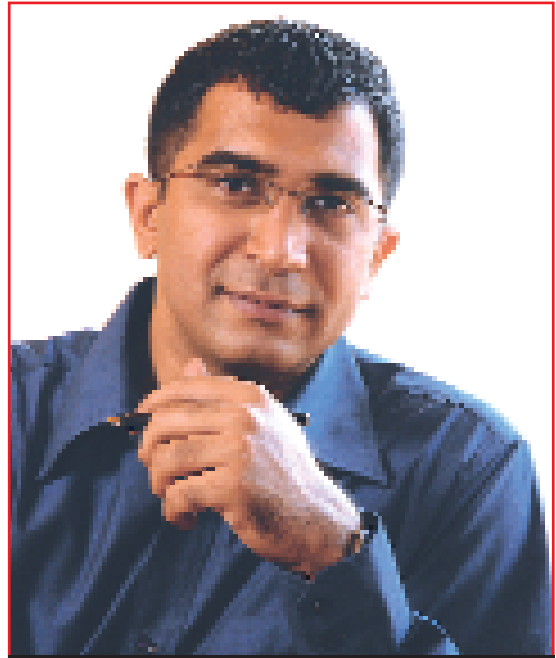
However, while most of the world ooh-ed and aah-ed over the Air's design elements, a select few shook their heads in disgust. A tech savvy Ryersons student said, "How could Apple have forgotten to add mobile broadband to it? I have no real reason to trade in my Macbook. It makes the whole Air thing pointless."

Other power users are miffed about the inbuilt battery. "I can't even pack an extra battery for long-haul flights back to India," says Anita Sharma, a student of Massachusetts Institute of Technology. The claimed five hour battery backup with WiFi turned on is something that remains to be seen.

Another enthusiast said, "Stuff like this is meant for the connected. There is a lack of functionality here. The product seems to be a prototype, what with no 3G functionalities built in."

Now, I am not the kind of user who goes by looks alone. I need functionality—Firewire, Ethernet, replaceable battery, etc. The choice was obvious for me: rather than spending USD 1,799 on a cool looking Air, I decided to get myself a normal Macbook.

With Steve Jobs himself admitting that the Air lacked features, not much is left to be said in this matter. However, I can't help but wonder what the



Sujay Nair Editorial Director

**"Now, I am not the kind of user
who goes by looks alone.
I need functionality..."**

future holds for the Air. Will the killer looks of the Air impress the masses and silence its critics, or will the lack of functionality be its undoing?

What I find curious is that despite knowing all they knew, and saying all they said, when I asked the dissenters whether they'd get the Air if I just gave them \$1,800, most said "Sure!"



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marc@imagemediatw.com



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Google.org gets busy applying tech to a humanitarian cause

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The MacBook Air—the world's thinnest laptop, they claim

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Psiphon: circumventing Net censorship

DIGITAL PASSION

Tomorrow Hurrying Data Along

The amount of data we generate is exceeding predictions; more and more data needs to be transferred over wires and networks at various scales. Considering this, what future technologies will come to the fore?



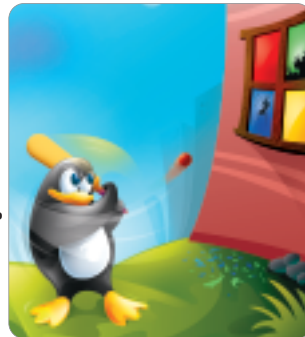
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30 Days with iPod Touch 8GB

Everything pod deserves a review, preferably one written after having spent 30 days with it. This month's reviewer tries to see whether there's more to the Touch than the touchscreen

Insight Settling Differences

Any two semi-techies can get into a verbal deathmatch about whether Windows or Linux is better, though most agree that the latter is more secure. So, well, which is better, and if Linux is more secure, why?



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Droolmaal

Would you believe there exists a quad-Xbox360 system, complete with fans to blow the wind in your face as you race? This and other more-than-attractive gadgetry—including a pair of headphones touted as the world's best!

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Digital Business

Smart SoHo @ The Office

Well, you've decided on the office furniture and more—and it's about time you got your official site up and running. What, where, how? Here's a simple walk-through of what you need to do



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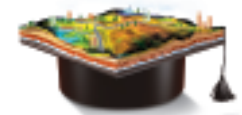
Trends Biometrics For Security

We've written countless words about biometrics and how they'll lead to a more secure future. So how many people have gone ahead and implemented it? We rang some doorbells to find out...

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Tech Careers Mapping A Future

Spatial image processing and analysis, Photogrammetry, GPS technologies, and more—the stuff a mapping career is made of, that is, everything to do with positioning, location, and such



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Smart Business The Numbers Game

As an online business, there are two sides to this story: firstly, you *can* get an insight into who visits your site and when and so on; but second, you need to be able to use that information. Here's about Web Analytics

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February 2008

DIGITAL TOOLS

Test Centre Ion Maidens

Individual reviews of our cell phone pick—for now. (Yes, we know it's all going to change a year from now.) But you do want that new phone now—so go ahead, get a glimpse of what's on offer!

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Test Centre Burning Up

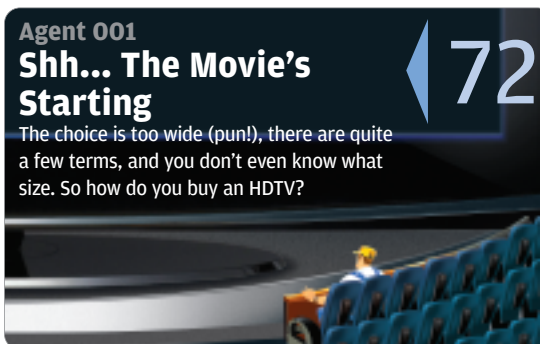
They're ubiquitous, cheap, necessary, and taken for granted... that's DVD-Writers. Well, so which one?

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Agent 001 Shh... The Movie's Starting

The choice is too wide (pun!), there are quite a few terms, and you don't even know what size. So how do you buy an HDTV?

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Know More About Root, Boot, Etc.

Here's about the Linux directory structure—which you really should know about, and about which there isn't a man page



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Bazaar

A monster of a motherboard from Intel—and an iPod dock that fails to impress. Then there's the Palit 8800GT 512 Sonic which looks a winner, and then an overpriced external HDD from Buffalo... a mixed bag of products this month

Digital Leisure

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Touched By Tech No Holds Barred

Here's a sort of round-up of what's happening in the world of the blind or near-blind. People are doing things to help them, with the help of technology; and they are using technology to help themselves



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Tabloid Tech

Five months ago, we said Pamela Anderson loves her Wii; then just a couple of months ago, we reported the same about Jessica Alba. And now, it turns out Queen Elizabeth II loves her Wii, too—only it isn't hers


Game On

This month's intrepid reviewers try their hand(s) at four mobile games, in addition to *Team Fortress 2* and the newest NFS iteration—*Need for Speed: ProSpeed*

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Escape



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Don Davies invented Packet Switching—and the ARPA lapped it up

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In the search for terrestrial intelligence, scientists write software to decipher dog-speak

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Productivity

PERSONAL OpenJuds RTI



A free database of Right To Information Act cases, created by Digit reader Prashant Iyengar.

DEVELOPERS VirtualBox 1.5.4



InnoTek VirtualBox is a general-purpose full virtualizer for x86 hardware. Targeted at server, desktop and embedded use, it is now the only professional-quality virtualization solution that is also Open Source Software. Not only is VirtualBox an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU Public License (GPL). Presently, VirtualBox runs on Windows and Linux 32-bit hosts and supports a large number of guest operating systems including but not limited to Windows (NT 4.0, 2000, XP, Server 2003, Vista), DOS/Windows 3.x, Linux (2.4 and 2.6), and OpenBSD.

■ VMware Player 2.0.2



■ Java SE Development Kit (JDK) for Windows 7 Build b24



■ Notepad++ 4.7 ■ Android SDK



Gaming

FREE Sauerbraten: Assassin Edition



Sauerbraten is now available for download, allowing you to play this free multiplayer/singleplayer first person shooter, built as a major redesign of the Cube FPS. Much like the original Cube, the aim of this game is not necessarily to produce the most features & eyecandy possible, but rather to allow map/geometry editing to be done dynamically in-game, to create fun gameplay and an elegant engine.

FlightGear v1.0

"With FlightGear it is possible to choose between three primary Flight Dynamics Models. It is possible to add new dynamics models or even interface to external ""proprietary"" flight dynamics models:JSBSim: JSBSim is a generic,



6DoF flight dynamics model for simulating the motion of flight vehicles. It is written in C++. JSBSim can be run in a standalone mode for batch runs, or it can be the driver for a larger simulation program that includes a visuals subsystem (such as FlightGear.) In both cases, aircraft are modeled in an XML configuration file, where the mass properties, aerodynamic and flight control properties are all defined."



DEMOS The Witcher

Set in a world created by best-selling Polish author Andrzej Sapkowski, The Witcher combines spectacular action and an intriguing storyline. You are a Witcher, a warrior who has been trained to fight since childhood, subjected to mutations and trials that have transformed you. You earn a living killing monsters, and are a member of a brotherhood founded long ago to protect people from werewolves, the undead, and a host of other beasts.

Tools

MULTIMEDIA Soundbase 2008.01.01



Soundbase was created to fill a gap in the large amount of free and commercial players/taggers. We do not pretend to have the ultimate audio solution, but Soundbase will most likely fit somewhere into your playing or tagging experience—it will always give you a quick way of doing common tasks.

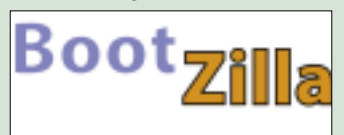
Jajuk

Do you love music? Do you need a place to get your collection together? Are you interested in getting an advanced jukebox FREE! Try Jajuk, it is a Java technology-enabled music organizer for all platforms. It can organize the largest, most scattered music collections and was designed to be intuitive and fast.

- Adobe Photoshop CS3 for Windows 10.0.1 Update
- foobar2000 0.9.5 Final
- GenieTexter 0.83
- Xilisoft Video Converter
- CDrTf 1.3 Final
- 3D Canvas 7.1.1.2
- PhotoFiltre Studio 9.1.0
- Songbird 0.4

SYSTEM Bootzilla 4.2.0

BootZilla is a toolkit designed with the intent of creating a simple toolkit that can



help the computer user or technician in removing pesky virus and malware infections. It can also help in the diagnosis of severe hardware failure, such as memory or hard drive failures. The entire toolkit offers a BootCD functionality, built up off of the Ultimate Boot CD.

- Google Desktop for Windows 5.7.712.18632
- EasyBoot 5.1.0.566
- Fresh UI 7.98
- System Explorer 1.2.1.540
- The 2007 Microsoft Office Suite Service Pack 1
- Magical Glass 2.0.0.2 Beta
- Kaspersky Internet Security 8.0.0.148 Beta

INTERNET WordPress (2.3.2)

WordPress started in 2003 with a single bit of code to enhance the typography of everyday writing and with fewer users than you can count on your fingers and toes. Since then it has grown to be the largest self-hosted blogging tool in the world, used on hundreds of thousands of sites and seen by tens of millions of people every day.

Transfz 1.15 Beta



Transfz (pronounced transfuse) is a integrated search agent in the form of a context menu that allows the user to launch online searches from any document or application on both the desktop and the web. Supports powerful extensions: Search and Replace, UPPER case, HTML insert...etc. Use the build-in

Plugin Creator to easily allow your favorite search engine to become a omnipresent standard in your desktop/web experience. Finally, Transfz also contains a clipboard list of the last 5-30 items copied.

- Halite 0.3 RC
- IE7pro 2.0 Beta 5
- Spiceworks IT Desktop
- Chyrrp 1.0.3
- save2pc 3.23
- FlashGot 0.7.2
- Cabos 0.7.6

- LINUX STUFF**
- Damn Small Linux 4.2.2
- OLPC updates for Fedora 8
- Desktop-Multiplier-Ubuntu.zip
- Pingus v0.7.2

- WORDPRESS PLUGINS**
- Yahoo! Shortcuts 0.962
- Google XML Sitemaps 3.0.3
- Akismet 2.1.3
- All in One SEO Pack 1.4.3.9
- WordPress.com Stats 1.1.1
- NextGEN Gallery 0.74
- Subscribe to Comments 2.1.2
- WP-Cache 2.1.2
- WPG2 3.0.2
- WP-Polls 2.21
- IM Online 4.4
- Dashboard Editor 0.2
- Real WYSIWYG 0.0.2
- Ultimate Tag Warrior 3
- Exec-PHP 4.3
- PXS Mail Form 2.6
- Extended Live Archive 0.10beta R18
- Lightbox 2.0
- WP-Forum 1.74
- fQuick v. 1.2
- flickrRSS 3.2
- Get Recent Comments 2.0.2
- wpPaginate 2.2
- WP-Notable 1.15
- AdSense-Deluxe 0.8
- PodPress 8.8
- Related Posts 2.04
- WordPress Mobile Edition
- Landing sites 1.3
- Custom Query String 2.6
- WP-Email 2.20

INTERACTIVE

Fedora 8 DVD

Fedora is a Linux-based operating system that showcases the latest in free and open source software. Fedora is always free for anyone to use, modify, and distribute. It is built by people across the globe who work together as a community: the Fedora Project. The Fedora Project is open and anyone is welcome to join. Boot from this DVD to begin installing Fedora. The folder contains the ISO for the Fedora Rescue CD.



Entertainment

MOVIES Steal This Film II



These are strange times indeed. While they continue to command so much attention in the mainstream media, the 'battles' between old and new modes of distribution, between the pirate and the institution of copyright, seem to many of us already lost and won. We know who the victors are. Why then say any more?

THEMES Vista Themes

Vista Theme For Windows XP. This theme pack includes two VistaVG Themes: VistaVG Ultimate & VistaVG Blue. Both of these were created by Digit Forum member and Microsoft MVP—Vishal Gupta.

TRAILERS SimCity Societies 'Evolution' Trailer



This trailer for SimCity Societies shows how you will have the freedom to build the city of your choice. A giant range of options and ideas are available, all the power is in your hands.

GTA IV—Trailer III—Move Up Ladies

Rockstar has released the third official trailer to the much anticipated, and delayed, Grand Theft Auto IV. The trailer, titled "Move Up, Ladies", comes in the satisfying and detailed HD variety and showcases much of the storyline and action players should expect from the new title.

Duke Nukem Forever Teaser Trailer

As promised, 3D Realms has released a teaser trailer from Duke Nukem Forever

GAMING

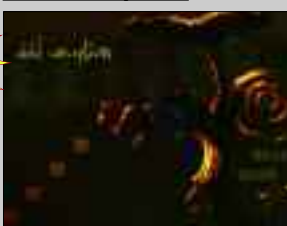


Frets On Fire

Frets on Fire is a game of musical skill and fast fingers. The aim of the game is to play guitar with the keyboard as accurately as possible.

GAMING

FREE Vivid Conceptions



Vivid Conceptions is a platform game unlike anything you've seen before. In it, you play the role of the last surviving Bantam, a creature that predated even the dinosaurs but was almost invisible to the naked eye. It's your job to journey across the underground in search of the last refuge on the planet...

TOOLS



MULTIMEDIA emTube

emTube is an application for Symbian S60 3rd edition phones that allows you to: Search and browse videos on YouTube. Download selected videos onto your

phone. Stream FlashVideo files directly from YouTube. Play local FlashVideo files.



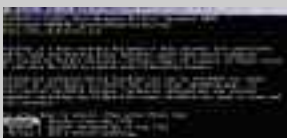
PhotoFiltre 6.3.0

PhotoFiltre is a complete image retouching program. It allows

you to do simple or advanced adjustments to an image and apply a vast range of filters on it. It is simple and intuitive to use, and has an easy learning curve. The toolbar, giving you access to the standard filters with just a few clicks, gives it a robust look.

- Mp3tag 2.391 Beta
- WinUAE 1.4.5

SYSTEM TestDisk for Windows 6.9 Beta



TestDisk is a powerful free data recovery software. It was primarily designed to help recover lost partitions and/or make non-booting disks bootable again when

these symptoms are caused by faulty software, certain types of viruses or human error (such as accidentally deleting your Partition Table).

- NVIDIA BIOS Editor (NiBiTor) 3.7
- 7-Zip 4.57
- Locate 3.0.7.12310 Beta
- SpeedFan 4.34 Beta 37
- System Explorer 1.2.1.540
- Vista4Experts 1.0.0.1

LINUX APPS

XMIND 2008 Pro

XMIND, with a clean and kind interface, is a revolutionary Mind Mapping/Brainstorming software tool. XMIND 2008 Pro enables users to work efficient and carry out various ideas easily by the revolutionary way they capture and manage information.

- Avidemux 2.4 Final
- Flock 0.9.1.2
- Phatch 0.0.bzr157
- Tibia 8.00

PRODUCTIVITY

DEVELOPERS FreeBASIC for Windows 0.18.3b

FreeBASIC is an open source, 32-bit BASIC compiler with the syntax the most compatible possible with MS-QuickBASIC that adds new features such as pointers, unsigned data types, inline-assembly and many others.

Nullsoft Install System (NSIS) 2.34

Nullsoft Install System (NSIS) is a small, efficient, capable installation system for win32. It is completely free and open source.

- AgPad 0.1

- MinGW-5.1.3

PERSONAL

BrowseControl

BrowseControl is an easy-to-use Internet management software that can readily be utilized by non-technical users. BrowseControl can totally deny access to the Internet.

ArchiveIT 1.0.7

ArchiveIT is an application used for scanning and archiving documents—stored in subject-based folders or binders which correspond to traditional archives. E-archive is far more secure, less effected by the consequences of chance events and finding documents is much easier.

Recipe4win 1.1

Recipe4win lets you navigate through thousands of recipes from the Recipe4all.com database with a neat interface. It allows you to search recipes by keywords, by ingredients, or by geography. Recipe4win also has direct access to the glossary. With a single click you can see the same recipe or listing in your default web browser.

- Back2zip
- Baraha 7.0 Build 6
- DAEMON Tools 4.10
- HTML Optimizer
- Jabref for Windows 2.3.1
- JustZIPit
- My Pictures 3D Album ver. 0.96
- Outclass v1.2.4.1
- PinNotes 1.2
- Polyglot 3000 2.8
- PopFile 0.22.5
- wkidPad 1.9 Beta 13



BROWSERS

- Firefox
- Flock 1.0
- Internet Explorer 7
- Maxthon 2.0
- SeaMonkey 1.1.7



DOWNLOAD MANAGERS

- Download Accelerator Plus
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- Orbit Downloader 2.5.1
- Retriever Download Manager 1.08
- Internet Download Manager



FILE SHARING

- Azureus
- BitComet 0.97
- BitTorrent 6.0
- BitTyrant
- eMule Plus 1.2b



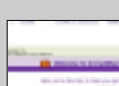
IM AND VOIP

- Adium 1.1.4 (Mac OS X)
- Google Talk
- Miranda IM v0.7.3
- mIRC v6.31
- Pidgin 2.3.1
- Skype 3.6
- Trillian 3.1.9.0
- Windows Live Messenger
- Yahoo Messenger 9 Beta



SECURITY

- Ad-Aware SE Personal
- AVG Anti-Spyware Free 7.5.1.43-3339
- Microsoft Windows Defender 1.1.1593
- Spyware Doctor 5.5.0.176
- Spyware Terminator 2.0.1.224
- SpywareBlaster 3.5.1



E-MAIL CLIENTS

- IncrediMail 5.68 build 3315
- Thunderbird 2
- The Bat!



RSS READERS

- BlogExpress 1.56.2
- RSSOwl 2.0 Milestone 7
- Easy RSS Content Generator
- FeedDemon



FILE TRANSFERS

- AceFTP 3
- PuTTY 0.60
- WinSCP 4.0.5
- Cute FTP Home

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Online



By Demand

You get to choose what goes on Digit Interactive. This month, you chose:

Fedora 8

Size: 3.3 GB

OpenJudas

Size: 347 MB



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Web Special

The Red Brick Road

October 2007

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Digit Reader Poll

This Month's Question

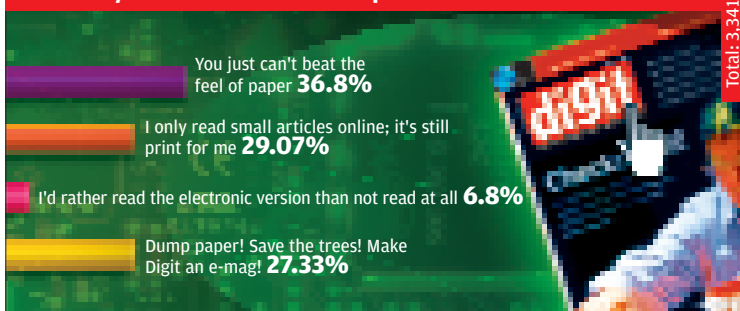
Vote at www.thinkdigit.com

Your thoughts about Fast Track:

- ☐ It's perfect, leave it the way it is!
- ☐ A little colour and better paper would go a long way
- ☐ Make it a Colour, Interactive PDF on the DVD
- ☐ Replace it with a comprehensive multimedia tutorial on the DVD
- ☐ Just end it, I hate it.

Last Month's Question

What are your views on electronic publications



taste technology at www.thinkdigit.com

FEATURED TUTORIAL FROM THE DIGIT FORUM (www.thinkdigit.com/forum)

This month we feature a member tutorial from the forum here.

[Click here to go back to](#)

thinkdigit.com

My Review of Creative EP-630

09-01-2008,
01:01 PM

[blackpearl](#)



The Devil
Join Date: Feb
2006
Location:
0x02AE88C6FF
Posts: 833

When you buy a domain at a registrar like Yahoo Small Business or Godaddy, you usually get only one email account. Some provide two or three ids depending upon the price. If you want to get more than that, you will have to buy them. Now, one email account is too less. You might want to have addresses like support@yourdomain.com, or sales@yourdomain.com or anything@yourdomain.com simultaneously. Now I will show you how to create up to 100 email accounts at your own domain, for free. All you need is a domain name and the ability to modify DNS records.

We will use Google Apps for doing this. Go to Google Apps and click on '~Get Started!~'. You will be presented with three different editions of Google Apps - Standard (free), Premier (paid) and education (free). Sign up for the Standard edition and provide your domain name to proceed. You will be asked to create an account for administrating the domain. After the account is created, you will be automatically logged into your account and into the dashboard.

On the dashboard, you can see the options 'Create new user' from where you can add new user accounts

to your domain. Before you can do that, you have to set up your email. Under the 'email' section, you will find 'Activate', click on it. Now you will be asked to configure your domain MX records.

Log into your domain registrar's account and head to DNS record management. What you have to do is this:

Create a CNAME record:
mail.yourdomain.com (you can use anything instead of mail) and enter hostname as ghs.google.com. Instructions on how to do this for various registrars are located at <http://tinyurl.com/295p9f>.

Create these MX records:
MailServer Hostname:.....Priority
ASPMX.L.GOOGLE.COM. ----- 10
ALT1.ASPMX.L.GOOGLE.COM. ---- 20
ALT2.ASPMX.L.GOOGLE.COM. ---- 30
ASPMX2.GOOGLEMAIL.COM. ---- 40

For more visit:

<http://www.thinkdigit.com/forum/showthread.php?t=77806>

Yahoo! Goes OpenID

Internet giant Yahoo! Recently announced that it would now be possible to use Yahoo! user IDs on Web sites that support the OpenID system, a decentralised sign-on system that authenticates a user based on a URL assigned to that user by an OpenID provider.



Netscape Navigator Retires

The most popular browser during much of the 1990s—Netscape Navigator—has retired, with parent company AOL announcing that it would stop security updates and technical support beginning this month. It will, however, allow nostalgic users to download archived versions.



Enter



Ajai Chowdhry
Founder, Chairman and CEO,
HCL Infosystems Ltd

HCL Infosystems Ltd, the pioneers behind India's first microcomputer, first Desktop PC and first home PC, recently launched a range of ultra-portable laptops: the MiLeap X & Y series. We had a quick round of questions with Ajai Chowdhry, Founder of HCL and Chairman and CEO of HCL Infosystems Ltd.

How different are computing habits and environments in India from those in the rest of the world?

Not very different. The external physical environment, however, in which Indians operate is very different; laptops here are subjected to a lot of dust, pollution, and climatic extremes. The MiLeap series is very rugged and designed to sustain normal wear and tear; the MiLeap model in the X-Series comes with a leather casing, giving it the appearance of a leather-bound diary.

What usage scenarios and application areas do you plan to target with future products in this category?

The ultraportable form factor, full functionality, and the fiercely competitive price are the USPs of the MiLeap range. The convenience factor has opened up limitless possibilities in new usage scenarios.

Having introducing the MiLeap series, do you believe that the near future of personal computing in India is ultra-portable?

Targeted at consumers who need to stay connected, informed, entertained, and productive anytime and anywhere, these laptops' weight and size makes it so convenient that a user need not think twice about carrying it to the office, home, gym, or park, or using it in a train, bus, plane, or metro. This revolution in personal computing in India will be sustained by four critical factors: price, size, features, and most importantly, availability of high-speed broadband.

HUMANS FOR HUMANITY

Helping, The SN Way

Here's more reason to take the social networking phenomenon seriously. Google.org's executive director Dr Larry Brilliant is running a project called Innovative Support to Emergencies, Diseases and Disaster (InSTEDD; talk about silly-sounding acronyms), which will leverage the use of existing social networking technologies like Facebook Mini-Feeds and Twitter updates to reach out to individuals in distress.

Here's how it works. As a patient, you can text-message the InSTEDD number asking for help. InSTEDD volunteers, who can locate your exact position via Google Earth, receive this message. Once your position is located, they search for UN or other humanitarian aid volunteers in the region and forward your query to them. The volunteers reply to you with a description of what medicines you should take, or with their address. Once the conversation is complete, software automatically links your mobile number with the group that last assisted you, so that when you send a message next time, it

directly reaches the volunteer group closest to you. If you send a text message from a different location, the software will detect the change and the process will repeat.



Illustrations Harsho Mohan Chatteraj

As a patient, you also have the option of subscribing to updates from the closest volunteer group in your area. This helps spread warning messages quickly to a large number of people. There is talk of improving response time by having volunteers from all around the world subscribe to GeoRSS feeds (feeds delivered to users based on the geographical location of their contact

number). The software can send out these feeds based on the geographical location of the patient and of the volunteer.

Since the project works using existing free technologies and software like Google Earth, Live Maps, Geo-coding Web services, and applications built on ASP.NET, they can be built and deployed quickly and inexpensively over a large, populous area. Twitter is being used as the worldwide SMS gateway, while Facebook is being used to geo-tag incoming requests with its Mini-Feed feature, and send out requests for help to volunteers in the region.

Brilliant is also considering the expansion of a Web crawler (software that indexes information from Web pages) used by the Canadian Government called the Global Public Health Intelligence Network. This will monitor 20,000 Web sites in seven languages, which could search for keywords used on Web pages from a specific location, and based on the time difference between these, can actually warn of a possible outbreak of either a disease or an act of terrorism to volunteers in the area!

Security Watch

Excel Under Attack

The Problem

A vulnerability—rated as “Extremely Critical” by security firm Secunia—has been reported in Microsoft Excel. As you'd expect, it can be exploited by Men With Malicious Minds to compromise a system.

It has something to do with how Excel handles files, but what exactly it is has not yet been specified. The vulnerability can be exploited if an attacker uses a specially-crafted Excel file with malformed header information.

Successful exploitation, as you've come to expect by now when something is rated Highly Critical, allows execution of arbitrary code on the victim's computer. According to Microsoft, this is currently being actively exploited.

The Solution

There isn't any—at least, there wasn't at the time of writing. If you get an e-mail with an Excel attachment, don't open the attachment unless you've spoken with the sender beforehand, or unless you're expecting it. Check <http://tinyurl.com/yotn2k> when you read this to see if a patch has been released.

The project has solid backing, with Google alone having invested \$5 million (Rs 20 crore). It has also received investments from the Rockefeller Foundation for \$1 million (Rs 4 crore) and is expected to receive another six-figure investment from John Doerr, a well-known venture capitalist.

COME SP3...

Microsoft Drops Support—Again

With the arrival of Service Pack 3 (SP3) for Office 2003, Microsoft has decided to stop support for older file formats—Word 4.x and below for Windows and 5.x for Mac. What this means is that if your company has any Office document backups from before 1992, they will not be readable with this update. Apart from that, this update also removes compatibility for older spreadsheet products that compete with

Microsoft's—like Corel Draw, Lotus, and Quattro.

Microsoft claims to have dropped support due to the formats being “less secure” than the current-generation Office 2003 and 2007 formats. Though this may be true, many users are one again pointing fingers at Microsoft for being the bully and forcing newer products on them. As companies and individuals alike back up more and more data, Microsoft's planned obsolescence of older file formats is worrying. Not only that, SP3 is reportedly riddled with bugs, with many users reporting frequent crashes and instability of Office after the upgrade. Even a complete re-install of the program does not seem to solve the problem.

The company does offer workarounds to fix the problem, and in an effort to wave the olive flag, has described two ways of doing so. One method involves downloading the Office 2003 Service Pack 3 Administrative Template and set templates for users across a domain—something not for the end user. Another method involves editing Registry

HOT WiMax
The broadband technology that will connect us all. We've witnessed WiMax trials throughout 2007, even getting Internet access out in the middle of the sea! And now, Reliance has even started providing WiMax Internet in some parts of the country...

It Sucks!
...well, the service does, to be fair. In a Google search for “reliance wimax”, the first result is a Web page that tells you loudly, “Reliance Wi-max services—don't go for it!” Sounds like the broadband bitching is never going to end for us...

entries manually—something potentially very dangerous for end-users! The misery doesn't end there: those Registry entries are different for different versions and language settings of Word, which means that if someone has backups from Word 2 and Word 3 French, he will have to edit entries for both those versions in separate places in the Registry; find detailed

What are your views on electronic publications?

(You, too, can participate in this poll—at www.thinkdigit.com)

A You just can't beat the feel of paper

C I'd rather read the electronic version than not read at all

B I only read small articles online; it's still print for me

D Dump paper! Save the trees! Make *Digit* an e-mag!

I'd choose B. The current e-publication methods are not conducive to sustain reading them over an extended period of time. It is possible to read them if the articles are short and concise. Nothing beats the convenience of reading a book on your couch.

Shubhankar Dattagupta
Pune



I've chosen B because I'm introduced to topics or articles at the computer, so I don't mind reading small articles on the monitor. But it strains the eyes more. Hence nothing beats paper for me.

Antonio Anastasio Bruto da Costa
Margao, Goa



I'll take C; I do prefer reading a book, but I like to have e-books for them as well. It's the best way to save the books as well as space.

Naveed Patel
Pune



I'll go with option B. Small articles may be read in e-media, but it's painful to read a whole magazine like *Digit* and its *Fast Track* in electronic media. Don't convert the magazine into an e-mag!

Sujit Kumar Ghosh
Digboi (Assam)



I vote for option A. Electronic reading puts a stress on the eyes. I have tried reading e-books of my engineering-related e-books... but I never completed them—I had to buy printed books for those topics.

Ravi Shekhar
Delhi

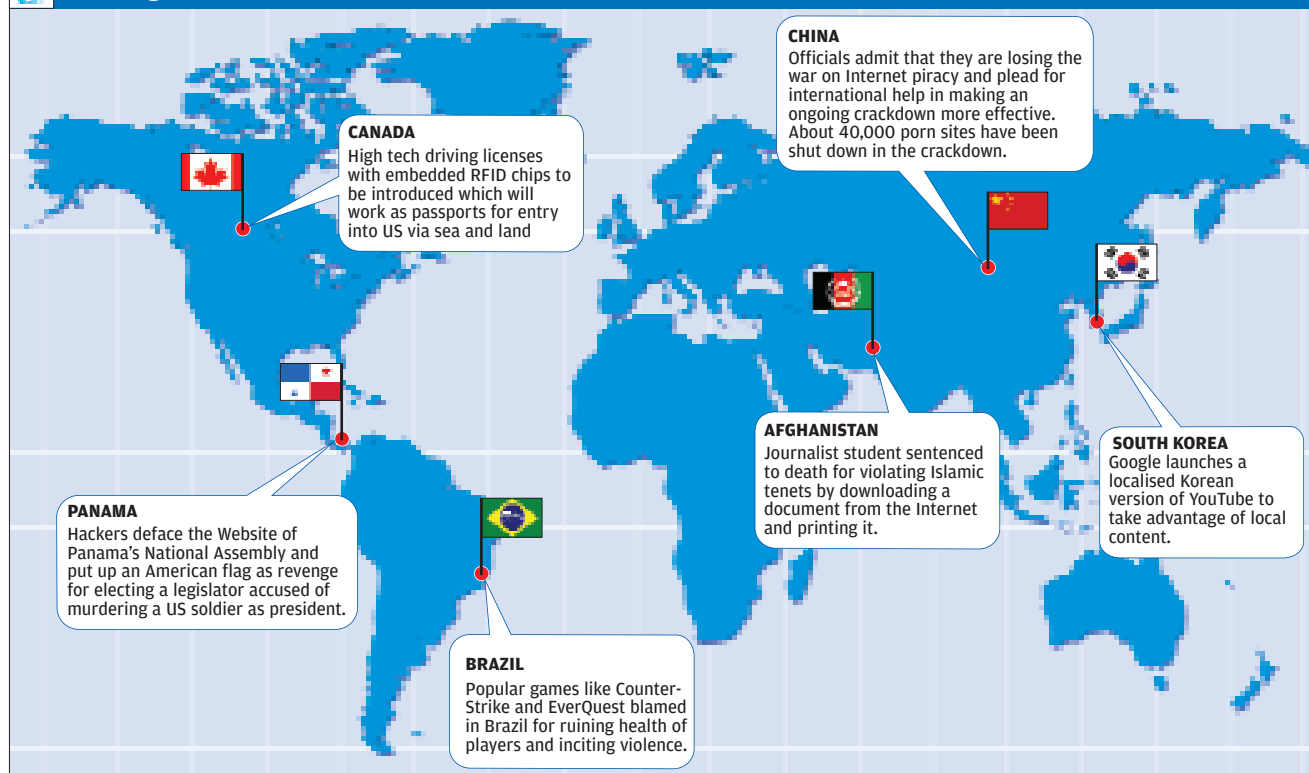


Reading magazines on a computer is definitely not tiring. E-mags have some nice, useful features like Web links and search features, which you can't get with a paper magazine. So I choose D.

Millind Alvares
Goa Parra



(You, too, can participate in this poll—at www.thinkdigit.com)



instructions at <http://tinyurl.com/3apmna>.

Users are complaining that the least that Microsoft could have done would be to set up a tutorial for circumventing the blocks on third-party file formats—as they did with their own products—or directed users to the correct source on the Internet.

IT'S IN THE EULA

My Spyware Community

More and more companies are monitoring user activity following an installation of their software. Reporting anonymous user statistics is considered all right if the user opts for the programme, but some companies want the user to opt for various programmes without knowing.

Sears, an American chain of departmental stores, recently launched a customer relationship

program called “My SHC Community.” When customers provided their e-mail address to the company Web site or at the store, they would receive an e-mail inviting them to join the SHC community. The mail discloses that participants would have to download software on the computer that would track their surfing habits anonymously. What it does not mention, however, is that the program will log all the Web sites a user visits, along with the items he buys, will store all the data he enters on any Web site and track his online personal and health records.

There is no mention of this anywhere in the invite e-mail, and only a reference to this can be found when reading carefully through the End User Licence Agreement of the software to be installed; it occurs mid-way through a paragraph, without a heading or any bold lettering to inform users of the extent of monitoring.

When this was reported to Sears, vice president Rob

Harles claimed that SHC “goes to great lengths to describe the tracking aspect”. Spyware expert Benjamin Edelman strongly disagrees.

In another such incident, Dan Moren, a blogger, found out that every time he used any Adobe CS3 product, an outside connection was made to 92.168.112.207.net. What’s so strange about this is that though this looks like an internal IP address, it ends with “.net”—something no internal IP address does. If you look closely, the last group has the letter “O” instead of a zero. What this means is that your usage statistics *might* be reported to Adobe when you use any of the CS3 line of products. When this address is followed in a browser, it leads to Omniture, a large user statistics and analytics firm.

There is, however, a namesake opt-out procedure you can follow; to do so, you’ll need to visit <http://tinyurl.com/29z3r8>. This page will install the opt-out

cookie on your computer. If you delete your cookies or use CS3 products from other accounts on your computer, you will have to repeat the opt-out process.

Users are not impressed, with many of them complaining that it would be much better if Adobe had mentioned to them that they were being monitored. As for Sears, most participants who came to know—from online reports—of this activity quickly uninstalled the software. Spy if you must—but with a little more class, please!

ALL IN ONE PLACE

Copy And Paste...

It could get annoying to set up a profile every time you create a new account on the Web. For example, social networking sites: you create an account, add friends, add photos, add interests, etc. and then you sign up at



Photograph Deepak Verma

Each month *Digit* will carry a caption for a photo. Come up with something funnier, and beat the *Digit* team at their own game! Entries accepted by the 20th of this month.

Beat That!

Digit Caption

Road Rash, anyone?

Last Month's Winner!

Abdul Khader J, Hyderabad
"That's what Crysis did to my laptop"



E-mail your caption with the subject "Beat That", and your postal address, to beatthat@thinkdigit.com and win

1 Hour Web Site
by Utvich, Milhous
and Beylinson

Published by

WILEY-INDIA



another site and do the same all over again...

A group of companies that believe in securely sharing predefined user data across the Internet is promising to change all that. Their Web site, www.DataPortability.org, encourages online companies to leverage existing technologies to share user data across other Web sites. What this means is that you won't have to re-enter details (like interests) or upload photographs all over again on that new Web site you just signed on to.

Leading developers from Google and Facebook, among many others, have recently agreed to take part in this path-breaking project.

For you, the end user, this means an Internet that is completely personalised to your interests and tastes, with all your data and relationships seamlessly accessible, while saying bye-bye to your privacy. If the industry pundits can

put aside their differences and work with participating members, the privacy angle can be sorted out, though.

These are, of course, early days, with companies only just having signed on. We'll keep our eyes and ears open on this one.

NIGERIAN SCAM?

OLPC Sued In Nigeria

LANCOR, a Nigerian manufacturer of lingual keyboards, has accused the OLPC Foundation of infringing on intellectual proprietary rights from two of its products. It claims that the OLPC purchased two of LANCOR's keyboards—and reverse-engineered its XO keyboards to be more like the KB-201s. Although the company shows no proof, it expects the OLPC to pay \$20 million (Rs 80 crore).

The company's lawyers responded swiftly to the

charges, asking for clarifications on details of the keyboard that LANCOR claimed had been infringed upon. Instead of communicating with the lawyers, LANCOR filed a Motion on Notice in the federal high court of Lagos, which stopped the OLPC Foundation from donating its laptops in the country. The court has slapped a temporary injunction on LANCOR, and this stops the company from closing a \$1 million (Rs 2 crore) order with the Nigerian government.

Some believe there is actually an Intel (under)hand in all this. They believe that the Motion of Notice allows Intel enough time to convince the Nigerian government to choose the Classmate PC, a small PC similar to the OLPC's XO and designed for kids, instead of the OLPC laptops. These rumours have gathered more ground with Intel recently having distanced itself from the OLPC foundation.

SCIENTIFIC SORTING

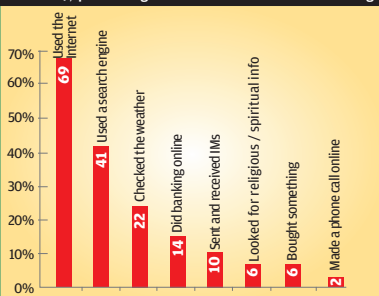
Google Gets Science-y

Search (and other things) giant Google is all set to store the world's open source scientific data at domain <http://research.google.com>. The project has been dubbed Palimpsest. Since the data will be open source, it will be accessible by all—scientists and non-professionals alike. The project was set to be showcased at the Science Foo Camp—a science fair at the Google campus in August last year, but missed its deadline and is scheduled to be launched soon.

Since the amount of data it will host is vast, there are technological challenges like being able to transfer large volumes of data quickly to the end user. The company will leverage the data visualisation technology it acquired from Trendalyzer, and will offer algorithms on the site for

STAT ATTACK

On a typical day (over 2006 and 2007; source: Pew Internet), percentage of users who did the following:



The average Internet user is 46.6 years old. 71% of senior (above 65) Internet users have received a video link, and 50% of them have forwarded links.

Source: Pew Internet, July 2007

End of 2007, traffic from Macs accounted for 8 per cent of Web traffic. Windows use fell in the past year.

One in six British pounds is now spent online. Internet shopping in the UK in 2007 was 50% higher than in 2006

As of January 2008, 48% of internet users had been to video-sharing sites. Traffic to such sites has doubled in the past year

examining and probing the data. The site will also include YouTube-style commenting and annotating features, which will allow for quicker sorting of information. This will allow for making massive data sets—like all the images from the Hubble Space Telescope—accessible to the public.

So how will all this data be uploaded to Google? In a post by a Science Foo attendee, the collection plan was described thus: “(They) are providing a 3 TB drive array (Linux RAID5). The array is provided in ‘suitcase’ and shipped to anyone who

wants to send they data to Google. Anyone interested gives Google the file tree, and they SLURP the data off the drive. I believe they can extend this to a larger array (my memory says 20 TB).”

GEOGRAPHY WITH A CAUSE

Geotagging Adds Value To Images

Did you imagine it possible to find the location, altitude, latitude, and longitude of a

picture just by looking at it? It is, now. The act of entering this metadata is called geotagging; it is becoming increasingly popular as more and more users start to upload their photos online.

When users upload their photos to Flickr or Picasa, they have an option to enter the name of the place where the photos were taken. When you run a search with that location name, your uploaded photos will also be displayed. Thanks to geotagging, it is now possible to search for almost anything accurately. Recently, mountaineers have been using geotagging to enter the altitude at which photos were taken with the help of GPS receivers. These photographs allow other mountaineers to determine the mountain surface at various altitudes.

This is just one of the examples of the advantages of geotagging; there have been reports of professional bird-watchers using it to keep track of the migratory paths of birds and drawing a path based on the location of the geotagged images.

The only hindrance to more detailed geotagging currently is that it involves fiddling with another device like a GPS receiver or a computer after the photographs are taken. Flickr estimates that only 5 per cent of their photos have simple geotags on them. However, camera makers are toying with the

idea of including GPS receivers in the cameras, which will automatically geotag every image with details like latitude, longitude, and altitude.

GOOGLE WHAT?

“Google Generation” Not Too Good At It

A new study conducted by the British Library and the Joint Information Systems Committee dispels the myth that those born after 1993 are capable of using the Internet much more effectively and that they are generally better at gathering information from the medium.

Based on log analysis from British Library Web sites and search tools, the committee studies the books rented out by kids based on search engines as their referring links. The study claims that this new generation is neither better nor worse than those in the last 30 years. However, it does note some serious changes in today’s knowledge culture.

The study notes that since knowledge is primarily sought from Wikipedia or Google, there is no real “expert” these days. The only knowledge that exists is peer knowledge, found mostly on online communities. It also

MacBook Air



One of Apple’s best-kept secrets thus far, the company says the MacBook Air is the “world’s thinnest notebook” at 1.93 centimetres. The standard-configuration MacBook Air sports a 14-inch LED screen, an 80 GB PATA drive, a 1.6 GHz Intel Core 2 Duo, 2 GB of DDR2 SDRAM soldered to the logic board, 802.11 a/n, inbuilt camera, microphone, and speaker, and Bluetooth. The battery life is around five hours.

There is no Ethernet port, but users can purchase a USB-to-Gigabit Ethernet converter. This is the first

MacBook since the PowerBook 2400—which was released in May 2007—to ship without a CD/DVD drive. However, users can use share the disc drive off other computers wirelessly, or buy the external USB SuperDrive from Apple.

The notebook’s aluminium case engages a magnetic latch when being closed. The trackpad on the keyboard includes multi-touch features, which is an advancement over other models. The MacBook Air ships for \$1,799 (Rs 72,000), but will not be available in India anytime soon.

Buzzword of the Month



Psiphon

Interesting name. What is Psiphon?

It's a system that allows people in countries where the Internet is censored (like China and Iran) to view any Web page they'd like to. Say you're in China, and the government has blocked access to Wikipedia. You have the address of a Psiphon node (a Psiphonode)—a computer running the Psiphon software in a free country—and an account there. You log on to that node, then type in the Web page address. The request is routed through the Psiphonode and your browser displays the page.

So who sets up Psiphonodes?

People and institutions willing to help. Anyone can install the Psiphon software on his computer, and it becomes a Web proxy for Psiphonites (those whose access is censored) to connect to.

Where do Psiphonites get the address of a Psiphonode?

People post requests for server addresses on forums, or call friends and family. If you run a Psiphonode and see a request from someone, you might send him your server address, and create an account for him.

Why can't censoring governments block Psiphon?

The Psiphonite connects to Psiphonodes whose addresses only a few people know. (To block access to a site, you need the IP...) Still, the forums where Psiphonites make requests for Psiphonode addresses have been known to be blocked.

When did the system go live?

In December of 2006. Forums are active, though we don't know how many people are using the system.

How does the whole thing remain legal?

It doesn't. In some countries, bypassing censorship is illegal. But a Higher Law would say censorship is illegal, that's why people are trying to help out.

notes that the "Google generation" prefers visual over textual information, but that text is still important—and visual media can lose its appeal very quickly. The study also notes that this generation has scant regard for copyright laws, and that plagiarism is rampant.

Interestingly, this generation is multitasking almost all the time, and the demand for instant gratification is constant; however, there is no hard evidence that young people are more impatient.

In spite of the results, the study warns libraries from trying to be more tech-savvy by, say, opening communities on Orkut, suggesting that this may result in the younger generation seeing it as "invading their space."

MORE OLPC WOES

Two's A Crowd, Says Microsoft

Just when news about the OLPC Project started slacking, there came another bit to trouble the

organisation. Nicholas Negroponte recently reported that the OLPC Foundation was working in collaboration with Microsoft to create a dual-boot version of its laptops meant for children, the XO. This was, however, quickly squashed by a statement made by a Microsoft representative, who went on to say, "While we have investigated the possibility in the past, Microsoft is not developing dual-boot Windows XP support for One Laptop Per Child's XO laptop."

Though this might seem a flat-out denial from Microsoft, there seems to be some confusion in the statement here. It is true that Microsoft is working with the OLPC Foundation to bring Windows XP to the XO. This will, however, be done in a different manner. Microsoft's plan is to load the OS onto a 2 GB SD Flash memory card, which can then be used to run on the XO. This is because the Windows environment requires at least 1 GB of space to run even a stripped-down version of Windows XP, along with any other program on the XO. To

revert to the XO's Sugar

interface—its OS—one needs to shut down the XO, remove the SD Flash card, and reboot.

Since this is different from a traditional dual-boot system, this is where—we believe—

Negroponte was confused.

Taking a pot-shot at the OLPC chairman, Microsoft also suggested that they be contacted for

further updates on the Windows-run XO, rather than any other source.

ONLINE COMMUNITIES SCARY!

What Parents Think

A recent survey by the Center for the Digital Future at the USC Annenberg School for Communication—for parents with children who regularly logged on to the Internet—found that two-thirds of parents are uncomfortable with their children participating in online communities, and half of them think online predators are a threat. However, 80 per cent agreed that the Internet is a valuable source of information, and ranked it higher than newspapers, television, radio, and even books.

The survey has been on for the last seven years, and trends have emerged. Logging on to the Internet is no more considered by parents as a distraction—naturally. Thirteen per cent of the parents felt their wards spent too much time online—a figure that has increased since last year, an not surprisingly. Another trend that has emerged is that more and more parents are finding it worrying that their kids are involved in online communities, but they don't deem chatting and e-mailing as harmful or potentially dangerous.

Obviously, the next generation's voice is the exact opposite—most kids polled report being avid users of community Web sites, with 71 per cent claiming that their social membership was "extremely important," and 54 per cent logging in to their online communities every day. ■





32 30 days with...



34 Droolmaal



34 xxxxxxxx

Digital

Passion

Fuelling The Pursuit Of Technology Knowledge

Insight

SETTLING DIFFERENCES

Any Linux geek would tell you Linux thrashes Windows in more ways than one. But does it? And why? What makes a system better than another? At this stage, are they even different at all?

Nimish Chandiramani

If there were no Windows vs. Linux battles, the geek life would have been notably duller. Technology forums would inevitably get boring, and life would generally never be the same. The most contentious issue, of course, is security—Windows is notorious for not having much in that department. However, Vista is loaded with a bunch of new security measures, and claims to be able to thwart malicious software better.

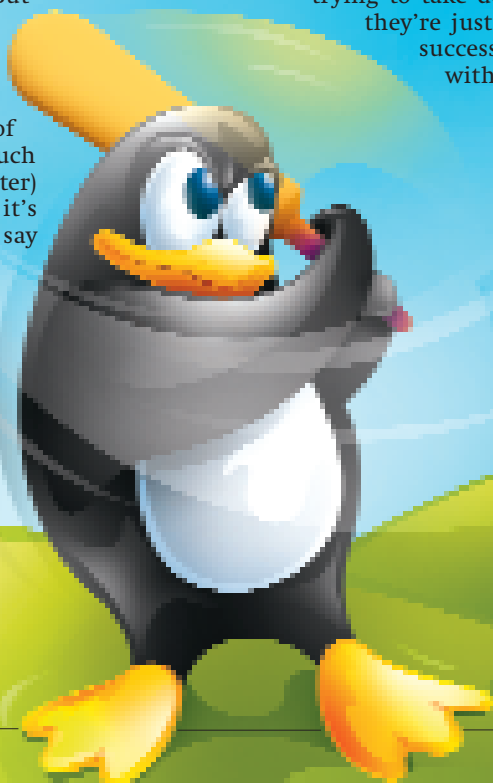
What makes an operating system more secure? The way it's built, of course. And *that* is the question we're asking. But first, some myth-busting.

Popularity Contest

The favourite theory to explain the low number of viruses (or Trojans, or other such malicious code, for that matter) that exist for Linux is that it's not popular enough—they say

that if you turned the tables and made Linux the world's most used OS, you'd find just as many malicious programs for it as you do for Windows now.

There is some logic to both the statements, but here's what the Linux community usually comes back with: nearly half of the world's Web sites run on Apache, either on Linux or a BSD. Since this is obviously the most popular platform, there's plenty of incentive for hackers to spend their time taking it down—and yet, you don't see Apache's vulnerabilities in the news as much as you see those of Microsoft's IIS. Not that the hackers aren't trying to take down Apache servers—they're just not having as much success with it as they are with IIS servers.





Windows Vista basically accomplishes what Linux has been doing for a long time—ensure that regular users don't have access to critical operating system files and services

All this is very leading, but it really doesn't say *anything*. IIS servers are often taken down by exploiting vulnerabilities in *Windows* (an unfortunate side-effect of *Windows*' integration with its software; more on this later), and not necessarily in IIS itself. Secondly, while the Netcraft list of sites with the longest uptime is dominated by Apache servers, there's no information on the actual availability of the servers—they could have been under a DDoS attack for half that uptime, but as long as they haven't rebooted, they're on the list.

Bottom line: there is no bottom line. For every (seemingly) logical statement, there exists an equally logical retort. We could write the arguments and counter-arguments for twenty pages if we felt like it, and you still won't walk away with a definite conclusion. Let's just move on.

Your OS And You

The biggest security breaches occur when malware is allowed to run with on your system with elevated privileges—which means that it has access to critical programs and data that only your system's kernel should have. Once it's reached that level, your PC becomes its humble servant, and can be brought down at the slightest whim. Who gives this malware its privileges? Well, you do.

With Windows XP, the person who installs the operating system becomes the Administrator, so if you're the only one using your PC, you've got the privileges to wreak all sorts of havoc, should you choose to. Consequently, any application you install and run is also accorded the same royal treatment, no questions asked. Now add to that the fact that *Windows*' system services run under a user account called SYSTEM (you can check this out in the Task Manager)—the most powerful account on your system, with access to *everything* critical—and that the first processes that malicious programs hijack are system services. You'll be drawing pretty accurate conclusions by now...

Vista, thankfully, changes this. The user who installs Vista is still part of the Administrators group, but even this administrator runs with regular, limited privileges. When administrative tasks—including installing new programs—need performing, User Account Control (UAC) kicks in, telling you that you need to give the task a go-ahead before it, well, goes ahead. If you read the UAC prompt and don't know the program it's warning you about, you can prevent it from running. But what if you've blindly allowed the task to continue?

Unlike XP, malware has little or nothing to gain from hijacking a system service in Vista—instead of giving services unlimited rights like before, Vista runs them with low privileges, giving them access only to critical files and Registry entries that they need; each service is given a Security ID (SID), which it uses to request permission to these objects. Consider this scenario in XP: a virus has hijacked your system's innocuous Plug-and-Play service and has acquired its privileges. One of the first things viruses do is disable the anti-virus so they can

continue their reign of terror uninterrupted. Since the virus can now do anything to your system, it'll be allowed to kill the anti-virus service, corrupt the virus definitions, modify its Registry entries and much more. In Vista, if this same virus manages to attack the service, all damage is restricted to the service and its domain—you won't necessarily be happy, but you won't be feeling silly, either.

Windows Vista basically accomplishes what Linux has been doing for a long time—ensure that regular users don't have access to critical operating system files and services; they don't even have access to files owned by each other! The all-powerful root account is never used, and in Ubuntu, it's actually disabled: you're expected to use the "sudo" command (or gksu for GNOME applications) and enter your password to execute commands that affect the system in general. Unless you *deliberately* use these commands to run a suspicious executable, the worst it can do is affect the files you have access to. Even if, for whatever inexplicable reason, you do decide to run a malicious script with sudo, your services are still safe...

Services in Linux run as separate users, with access only to files that they own; more often than not, they don't even have the rights to use the terminal, so they can't run commands or start other services. This is where the multi-user approach comes handy again—since users are isolated from each other, services can't access the data used by other services. The Apache server, for instance, runs as a user called www-data, which only has access to the Web pages it serves. If a hacker exploits an Apache vulnerability to get into the www-data user account, he can't really do much to the other services, because www-data doesn't own those files. He can, however, mess with Web pages, so while this isn't a doomsday scenario, it's certainly not ideal.

You've probably noticed the parallels between the two operating systems by now—for your use at home, both systems are quite secure. Unfortunately, they both have one critical flaw: PEBKAC—Problem Exists Between Keyboard And Chair. No operating system can plan for human ignorance—Vista, unfortunately, allows you to disable UAC (and it's annoying enough for you to want to), and even then, it can't guard against people who click OK without realising what they're doing. Linux developers do all they can to ensure that you never feel the need to use the root account, but there's always the daredevil who can't resist. If you keep your head on your shoulders and read what's on your screen, your PC will be as secure as you want it to be.

True, there are more people working on Windows viruses than Linux, but popularity isn't all that makes Windows popular with the hacker community...

Package Deal

Unfortunately, the thing we love about Windows is also its undoing. Windows is designed as a single unit, so a lot of features (or modules, depending on what you're looking at) are inte-

grated into the core of the system, even though they don't need to—IE and Outlook Express immediately spring to mind. Remember the Windows 98 + IE4 combination, when you couldn't tell where the OS ended and the browser began?

The upside to this approach is a smooth, hassle-free user experience—all these programs get a little extra love from the OS kernel, so they'll inevitably perform better than third-party programs. The downside—which we see often enough—is that any vulnerability in these programs can potentially bring down the entire system. This is why you hear of vulnerabilities in IE and Office letting hackers gain control over Windows PCs. In fact, in Windows XP, even the graphics engine that draws windows on your screen runs in this privileged space, so if your graphics freeze, your only option is to reset your system.

Linux, on the other hand, is designed to be modular. Only the most essential components of the operating system are integrated into its core—the rest are loaded only when needed, and don't have access to critical system files. A vulnerability in Apache, for example, stays in Apache. The Linux we're talking about here is the core OS, and not the Desktop Environments, mind you. GNOME and KDE may not integrate with the Linux kernel, but within themselves, they are quite integrated. The disadvantage is the same as for Windows—if one component of GNOME fails, the Desktop Environment fails, taking all the applications running in it down. However, the OS kernel isn't affected, so all you have to do is a simple [Ctrl] + [Alt] + [Backspace], which ends your GNOME / KDE session and lets you log in to your system again.

This is where Linux (and UNIX, and the BSDs) clearly take the lead in terms of security. It may not feel as nice as Windows while you're using it, but it won't let something silly like a flaw in a text editor take it down, either.

Endgame

So really, which is better? Let's look at it step by step, starting with the potential for malicious software to enter your PC. Both systems are on equal footing here—malicious software getting into your PC is usually your fault (assuming you don't have security software installed). Step two: malicious software does get into your PC; what is the scope of the damage it can do? Again, with both Linux and Vista, damage caused by malware is restricted to the service it exploits, and the files that the service can access. So far, so good. Finally, step three: what happens when the malware goes about its dirty deed? With Vista, if a critical service—like the Remote Procedure Call (RPC) service—is compromised, all manners of chaos may ensue. Every application under Windows needs to use RPC, so you're sunk without it. With Linux, services aren't as tightly integrated with the OS, so while your Linux PC can be crippled—some applications won't run, you may not have network access and so on—the kernel is still safe, which means that with a



Windows' Remote Procedure Call (RPC) service has many things working against it—nearly every application on your PC needs it, so it's a favourite target for hackers, and even a moderately resourceful amateur will stumble upon neat little GUI tools like this to exploit the service

little root wizardry, it can be brought back to life again.

Bottom line: for daily desktop use, both systems are equally secure—but if things do go wrong, they go more wrong with Windows. ■

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Only the most essential components of the operating system are integrated into the Linux core

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Embedded OS	Optional (Linux, WinCE, WinXP)
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Ethernet Interface	10/100Mbps, RJ45 type cabling
Wireless	Optional
Hard-disk	(Optional) 2.5" Laptop HDD
I/O	1 Parallel, 4 USB, 1 Serial, PS2 Keyboard & Mouse con.
Audio	Ac97 audio
Power	± 12V @ 5A (0 watts only)
Dimensions	220" x 9.5" x 9"
Weight	1.5 Kg
Platform supported	RDP, ICA, XDM, VNC, NX, Ichnet, ssh
OS supported	Win NT/2K/XP, Linux, DOS
Local device supported	Parallel/USB & Serial printers, Pen-drives, CD-ROM, Floppy, devices like bar code scanner etc.

iPod Touch 8GB

January 2008

Michael Browne

Having played around with my Nano 3G for a couple of months and loving it, I was totally unprepared for the sudden pang of regret followed by a flash of good old jealousy when the iPod Touch was palmed on to me for a long term review. While PMP shopping, I had told myself I could do without the allure of the large touchscreen; was I fooling myself?

Day 1: *Change the World*—Eric Clapton

The package's nice—USB cable for data and charging, typical Apple earbuds and transparent plastic stand—all accessories present. Still no iTunes bundled. The Touch is rather heavy for a PMP, courtesy the steel back. The chrome finished rear looks hot, but scratches easy.

Day 2: *Many Rivers to Cross*—UB40

I upgraded the firmware to version 1.1.3; syncing anything still requires iTunes (sigh), though you can interrupt the process with the swipe of a finger. Unlike the Nano or the Video models, you don't have to disconnect the device from iTunes to interface with it (play music, watch videos etc)—a serious plus for me, since I listen to music while my device is connected.

Day 4: *The Look*—Roxette

I ripped my copy of *Beowulf* to the Touch. Syncing movies is painful—iTunes creates another copy of the movie in the relevant format, and then the syncing occurs. Video playback is good—nearly as good as on the PSP (PlayStation Portable)—high praise indeed!

Day 6: *Can I touch you there*—Michael Bolton

Played with the touchscreen some more; it works well, for the most part. Very gimmicky, and once the initial glamour dies down, it's just another PMP. I love the finger-swipe browsing and the two-finger stretch to enlarge photos—nifty and ultra cool! Browse through albums, tracks, and videos with just a finger—and the Touch works much better than most touch devices I've worked with.

Day 9: *Meadows of Heaven*—Nightwish

A few favourites have been playing—Jim Morrison (The Doors), Eric Clapton, Dire Straits and U2, and I've caught myself unabashedly tapping my feet. Music is spot on, vocals have a very natural timbre, Jim Morrison sounds rustic, and Clapton's guitar in *Layla* and *She's Waiting* comes to life with realistic mids. Apple's

default earplugs are crap as usual, and you're better off dumping them straight away than punishing your ears.

Day 14: *Another day in Paradise*—Phil Collins

Thanks to the gorgeous screen, all photos look good on the Touch; just don't zoom in—graininess and loss of detail will greet you. It seems they're optimised for full screen viewing, and that's it. Battery life nosedives when you fiddle around with the screen. I got 8 hours of MP3 playback with moderate touchscreen use—mostly around albums, playlists and such. The new firmware (1.1.3) was supposed to add 3 hours to music playback—I got 1.5 hours; not too bad.

Day 19: *Life in the fast lane*—The Eagles

Safari—the Web browser—is a little slow. WiFi transfers work well, and the Touch makes for a great companion at congested airports with open WiFi access. For me, this puts the Touch into a league of its own.

Day 22: *Feels Like Heaven*—Peter Cetera

This is a great PMP, good video playback, a very good music player, and a functional and funky touchscreen that will get you envious glares on the street, trains and buses. What's not to like? The price, for one—Rs 14,500 is a little expensive for my tastes. Besides, the Touch is a little heavy to jog or work out with. That's it; no more complaints.

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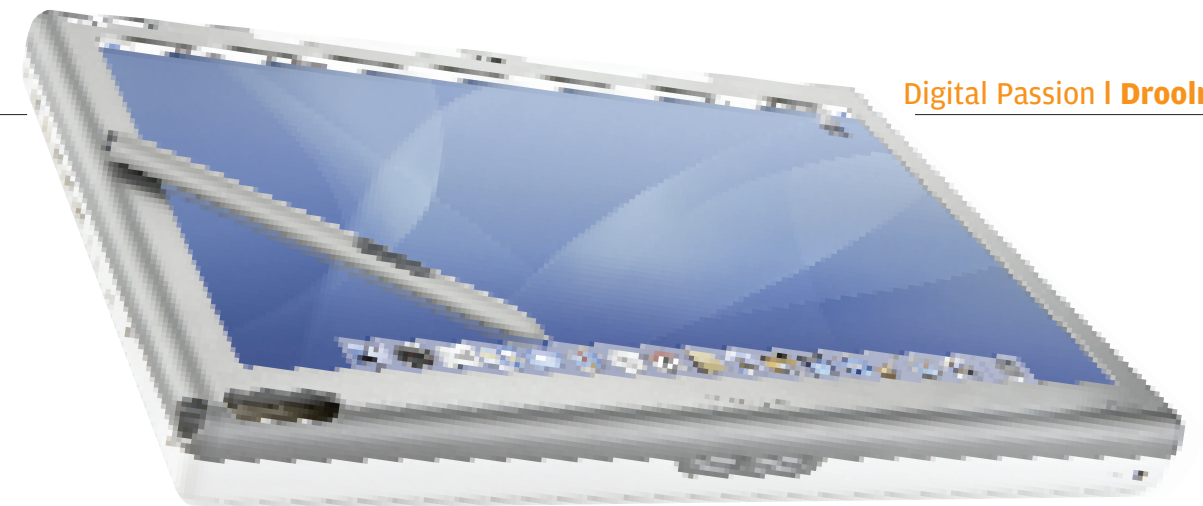
LG HT762TT

Home Theatre systems are generally all about quality, power and detail, but LG thinks design can't be ignored. Presenting the all new HT762TT—it's got 5 speakers and a subwoofer that total up to 700W of power that should be enough to blow the windows off the walls. While it may all be about aggressive power and chaos, its design is elegant and soothing and blends in well with your designer room. To take it beyond being just another fancy speaker set, they have put in VSM (Virtual Sound Matrix) which delivers a sensation of surround sound like you would get from 10 satellite speakers instead of 5. Plug in your USB devices to the system and you can playback MP3s, WMAs, DivX videos or even photos from your outings.



Axiotron ModBook

The iPhone isn't the only Apple gadget to get cloned by companies from our side of the world. There have been talks of ASUS apparently working alongside Apple on a "Mac-tablet" for some time now, but a company called Axiotron has already beaten them to it. Yes, there is, in fact, an Apple tablet that isn't made by Apple. The Modbook, as it's called, is based on the Macbook. A quick search on Google reveals 2 models of the Modbook—both between the price of \$2,279 (Rs 94,000) and \$2,479 (Rs 1,02,000). This isn't some handicapped version of the Macbook, it's the whole shebang—a Core 2 Duo processor, a 80 / 160 GB hard drive, a 13.3-inch touchscreen (obviously), a stylus powered by WACOM's Penabled technology, WiFi, and even an inbuilt GPS! All this runs on the OS X Tiger operating system. It's not like they were running out of space to stuff in more things either. They even give you the option to put in 4 GB of memory and up to 570 GB of disk space!



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VRX Mach4

The Mach4 is a Quad-Xbox360 chained together to power the three gigantic 37-inch Sharp 1080p screens. A Microsoft Force Feedback Steering wheel is used to steer. The fourth Xbox360 powers the smaller 7-inch screen that is your rear-view mirror. There's a Sparco racing seat and a 1900-Watt vibration system to ensure you feel every bit of unevenness on the track, and two fans to help you feel the wind in your hair. The price? £12,500 (Rs 10,50,000)—much more sensible to buy a real car, isn't it?

Olive OPUS N°5

The Olive OPUS N°5 is in a class of its own when it comes to high-end music players. It comes in flavours of 400, 500 and 750 GB, which translates to weeks of non-stop, non-repeating, high quality music. The creators have ensured perfect audio quality by choosing the best



DACs (digital to analog converter) and sophisticated power supply components to isolate any disturbances. It's not lacking in features either—it can be controlled through a PC or a mobile phone thanks to wired and wireless connectivity. This also means you can also stream music from over the Internet. There's even provision for plugging in USB devices and you can use it to burn CDs as well. The price for the 400 GB model is \$2,999 (Rs 1,22,000), \$100 (Rs 4,100) more gets you the 500 GB model, and another \$100 for the 750 GB.

Ultrason Edition9

If there's anything more desirable than a set of ultra-high quality headphones, we don't really want to know. The Ultrason limited headphones that cost \$1,500 (Rs 63,000) are touted as the world's best, and many audiophiles would agree! The 'phones use 40mm Titanium plated Mylar drivers, and they can play frequencies from 8 to 35000 Hz—well beyond the human ear's capacity. Ultrason's S-Logic technology gives a great sound stage performance to the Edition 9. To keep your head pampered, exotic Ethiopian sheep leather has been used on the earpads and headband.



Hurrying Data Along

The society of the future will depend on fast networks more than ever before. Here is a look at that future

Bhaskar Sarma

Communication depends on networks. Period. While networks can mean many things in many contexts, it's the physical networks, the wires and the waves that enable it all. As the technological revolution proceeds at breakneck speed, more and more digital data is created than ever before. And this data isn't created by huge corporations, universities and governments—each one of us, when we send an SMS, click a picture or shoot off an e-mail, create data which will invariably be added to the repository of global digital data. In fact, IDC—a research body—estimates that 70 per cent of the 988 exabytes of data (one exabyte is equal to 50,000 hours of DVD quality video)—projected to be the global digital output by 2010—will be created by individuals.

Even by conservative estimates, that number is huge. The thing to note is that most of that data is not going to be static. It will exist in the Cloud—a term recently much in use and which roughly means the Internet. Everyday, as

humans upload more and more data from their gazillion devices, the networks that support these data transfers will need to get more robust, both in quantity and quality.

Inside The Chip

Before talking about megascales, let's focus a bit on nanoscales. Inside the processor, we have been seeing an increased concentration of cores. The latest processors have four cores, though manufacturers like Intel and AMD have released roadmaps for octal core processors by 2009. And then the stage will be set for 12, 15, 25....

With all these cores in a tiny sliver of silicon, networking and data transfers between cores in the die will need to have a quantum change. Unlike today's processor architecture where running different applications means that the processor switches rapidly between them, future designs with say, 100 cores will have separate cores devoted to individual processes. This means that encryption would get the attention of one core, video encoding would be the domain of another one, gaming will be handled by the third...you get the drift. In such a scenario,

current bus transfers data rates simply can't keep up. If we have to go with current architecture, that would mean that most of the cores would be starved of data, and instead of speeding up individual applications, they would slow down.

To get around the inter-chip networking bottlenecks, companies like Intel and Rambus have been working on prototypes of newer architectural models. Rambus has a program called Terabyte Bandwidth Initiative (TBI), while Intel's programme is called Terascale Computing Research Program. Last February, Intel has released an 80-core chip that delivers supercomputer-grade speeds on desktop computers. The fingernail-sized Teraflops Research Chip's performance metric is 1.81 Teraflops (trillion floating point operations per second) at speeds of 5.7 GHz while data transfer rates peak at 2.92 Terabits per second. Rambus has also unveiled new data transfer models that could easily go up to 1 Terabyte per second—about 20 times the intra-chip data transfer rates in the PlayStation 3.

How is this being implemented? In Intel's case, each core has a 5-port message passing router which is connected in a two dimensional mesh network with other cores that implements message passing—an efficient LAN on a chip; cores will communicate with each other better, and the router will ensure that the right data goes to the right chip. This architecture is much more scalable than present day multi-core chip interconnects in terms of speed and performance. On the Rambus side, we see new techniques like Full Differential Memory Architecture (which means in plain English, sending electrical signals across different wires at the same time, instead of across only one wire), 32x signalling (transferring data at 32 bits per I/O operation per clock cycle, compared to DDR's 2 bits per I/O operation per clock cycle) and FlexLink for command / address routing (using the same type of high speed signals which are in the data lines on the command / address line).

These technologies are going to be in the market by 2010, the companies say. In this context, we had talked about IBM's technology where multi-core chips use light rays to transfer data from one core to another, eliminating physical connections altogether. If and when the technology is perfected, such chips are likely to be first used in servers and high-end computers, especially for gaming and specialised tasks like video editing and scientific modelling that

Security is an important aspect, and adaptive networks will be able to detect security attacks and to fight back—almost like what the immune system does for our body

demand a lot of processing power. However, by 2015, your 10-year old kid's computer will have these beasts sitting inside it. And quad core would look so, well, last decade.

Smart Wires

Back to life-sized scales. Networks of the future will be worlds apart from today's relatively dumb ones that simply carry packets from one end to the other. With the explosion of P2P, high definition video streaming and ubiquitous computing—projects like Internet 0 are looking at a scenario where even light bulbs and toasters would have IP addresses and will be hooked into the Internet—networks as we understand them today may be overwhelmed by the load of data. Already, doom-sayers have been predicting how the “exaflood” of data is going to clog the pipes, and there have been quite a few apocalyptic predictions. Those on the other side of the fence are less sure, and many believe that Judgement Day, when networks will just give up, is not far off.

That said, networks of the future will look different, and will possibly work on different protocols. Such networks will not need full time chaperoning which is the job of today's system administrators. Called *adaptive networks*, they would provide a personalised experience for every user, with minimum maintenance. Adaptive networks would also seamlessly support different applications like VoIP, video conferencing, video surveillance, wireless applications, computing on demand or any other new application that users throw at them. Currently, most networks have a one-size-fits-all philosophy when it comes to applications, and when newer demands arise on the network, it starts to show its cracks. Security is also an important aspect, and future networks will be able to detect security attacks and take steps to fight back. Almost like what the immune system does for our body.

This scenario seems to be a bit too Utopian, but already companies have started work on plans that would make this a reality. ProCurve, the networking arm of HP has a neat solution that would make networks of the future “think” they way they're supposed to. Each port on the router and switch on the network will have individual silicon chips that would monitor the traffic flow in the network. These mini-processors would have software installed that could be optimised to run different applications like VoIP, video streaming, P2P file sharing, virus scanning, *et al.* Because the software is programmable, ports can easily switch data types from, say, VoIP to video in the event of heavy demand.

Such architecture would ensure that the available capacity is optimised for all these bandwidth-hungry applications. Another big draw for this decentralised architecture is that there will be no single choke point in the network, therefore ensuring that even in the case of a disaster, some part of the network would always be up and running. Contrast this with today's scenario, where networks are only as strong as the weakest link—hubs, routers, switches. For naysayers who foresee difficulties like keeping the network software patched and updated in absence of any centralisation, ProCurve has a solution—use a



A comparison between the data flow rates in DDR2 and TBI

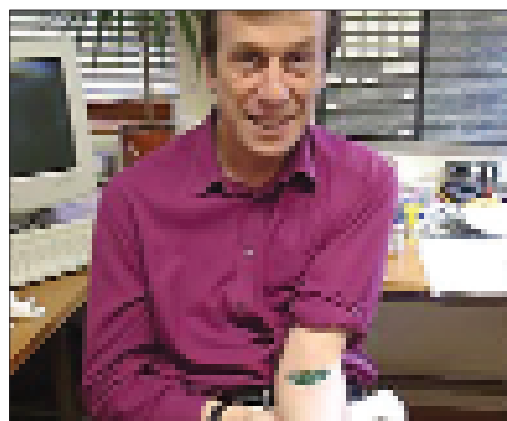
smart console to manage all these intelligent ports and regulate bandwidth. This is still in the planning stage, but there is a working prototype expected in about three years.

Personal Networks

Networks in the future will get more personal. Not the kind of personal as in Bluetooth or PAN (Personal Area Networks), but personal as in data packets getting exchanged between different organs in a living body. Some researchers have suggested that future human beings could have tiny chips implanted inside their bodies which would be linked to the Internet. Consider: patients with heart conditions would have Internet-enabled pace makers implanted in their hearts. No matter where these people are, the pacemakers would keep sending data to a central server where doctors would monitor the condition of the heart in a real time. In the future, we would be cyborgs, our bodies carrying tiny silicon chips that would keep a constant touch with chips in other people. This has already been attempted by Kevin Warwick—a professor of Cybernetics at University of Reading—who has implanted a chip in his hand. It was connected to the Internet, and the purported aim was to move the hand using commands sent online. Though the experiment failed—Warwick had to take the chip out after two months—it is a picture of what could be.

Even if we manage to wire our bodies up to the Internet and exchange data packets with each other, there are several moral dilemmas that have to be overcome. One of them is obviously privacy: already the proposal to implant RFID chips on criminals and sex offenders in the US have been met with strict opposition from civil rights activists, who fear the technology could be misused for other, less ethical purposes—think about dictatorships implanting these chips on dissidents. Apart from that, there are other technical problems to sort out—can a human body, for instance, live 24/7/365 in a state where strong wireless fields blast through every mitochondrion in living cells? Would we see new diseases, or newer tumours? And what about the strain on routers and servers who would see an incremental jump in data transfers? That's where newer protocols come in.

Can a human body live 24/7/365 in a state where strong wireless fields blast through every mitochondrion in living cells?



The world's first cyborg, Kevin Warwick implanted a chip into himself that could connect to the Internet

The Infrastructure

We've talked about all the forms and functions of the networks of the future, but what about the basic architecture behind it? That has to change if networks are to wow us with this ubiquity. Since networks are made up of protocols, these protocols have to change for evolution to take place. IPv4, the current Internet Protocol which governs, among others how IP addresses are distributed will pave way for newer generation IPv6 with a much larger address space. This address space will be sorely needed when we start giving pacemakers and toasters IP addresses.

Some of the newer research activities are aimed at finding a replacement for the venerable TCP and UDP protocols. One of TCP's major limitations is that if a packet is lost on its way to you, the protocol prevents you from receiving any more packets till the lost packet is re-transmitted. This is quite nice for sequential data, but awful for video and voice, where the benefit of continuous transmission outweighs the drawback of a lost frame or a skip in audio. This is where UDP came in, but it's not as reliable, so it isn't good for anything *but* video.

Some probable candidates and complements are TCP/UDP with Bigger Addresses (TUBA), Simple Internet Protocol (SIP), Internet Protocol Next Generation (IPNG), Connectionless Network Protocol (CLNP) and CIDR (Classless Inter Domain Routing). Some of these are on paper, others are being tested in a restricted environment.

Future Shock?

From the domains of science fiction to being tantalisingly within our grasp, ubiquitous computing and networking has come a long way. Most of its promises are way off the mark even today, and early visionaries were being a tad too hasty when they were predicting the rise of machines that would do everything from talking out the trash to driving buses. We are, however inching slowly towards that, and maybe will arrive in such a world in a century and half. Until then, it's only fair to hope that we get that broadband connection deliver on its promised speeds so that there are no coffee breaks in the middle of the YouTube video. Not too much to ask, is it? ■

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Pandora's Box

With the entire hullabaloo over networks, security is going to be one of the biggest headaches. Network security has always been a game of cops and robbers, with security applications needing to play catch up to threats. A Denial of Service (DoS) attack will no longer mean that you would be unable to access the effected Website; in the future such attacks might even cost lives. Just take the case of hackers messing up the server in a hospital which monitors signals from pacemakers and tweaks the electric signals depending on the cardiac activity: depending on how malicious the attack is, lots of people are going to have anything from heartache (literally!) to cardiac arrests. How about computer viruses that affect our implanted gadgets? That would be like any natural viruses. This will make hackers from being tolerated as nuisances to becoming as feared and despised as terrorists and gangsters. Apart from this admittedly extreme scenario we could see networked cars breaking down in the middle of the road, supermarkets not accepting credit cards or light bulbs refusing to switch on. Not to mention us living in a world where we could not communicate with gadgets, or even with each other. Scary thoughts.



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Digital Tools

Technology For Personal And SoHo Productivity

Enhance

IN PLACE

Getting mails in order and cutting that Inbox down to size will have a positive impact on your life... take it from us!

Asfaq Tapia

“**I**nbox” has a meaning: it’s a place where mails have come into, waiting to be read and processed, then either discarded or kept in an appropriate place. The Inbox was never meant to be a heap of hundreds or even thousands of mails.

It’s not an idle matter of perfection. Consider this. If your Inbox is too large, you could spend too much time finding a mail you’re looking for – if you know it exists. Second, if there are too many mails there, there are probably some important ones whose existence you’ve forgotten about – and no appropriate action has been taken. Third, if you’re struggling to “catch up on your e-mailing,” you’d tend to begin at the beginning – of that huge Inbox, and two things could happen: (a) Looking at that heap, you might never start; and (b) If you do, your attention would be divided as you juggle between personal and official mails, less important ones and more important ones.

There’s more: if you only use the standard mail folders in Outlook (we’re assuming, keeping numbers in mind, that Outlook is your mail client), and you have too many mails, the file could get corrupt (meaning you could lose all of them).

To get to the point, it is this: that it’s desirable to have a trim Inbox, well-organised folders, and a ready backup for when things go wrong. While talking about all this, we can’t avoid the subject of spam, either. And so, while there are many philosophies one can subscribe to on one’s journey to becoming a good e-mailer, we’ll keep what follows to the essentials.

A Few Obvious Things

Almost all of e-mail wisdom can be put in three concise lines:

- ☒ Keep unwanted stuff from getting in.
- ☒ What gets in, classify into what needs action and what doesn’t.



☑ For the items that do need action, have a consistent plan; those that don't, put them where they should be.

Perhaps we should add a fourth concise line:

☑ Back up often.

You should formulate a policy for yourself to keep things in order, but we'll tell you a couple of things just so you're aware that you don't have a proper policy in place!

First off, constantly being alerted of new mail is a distraction. We've gotten used to it, but ask yourself if you really need Outlook to check for mail every five minutes – and whether you need to be notified each and every time. Chances are you don't. You'll deal better with e-mail if you give it a time and a time-slot. (Only you can decide whether you need that to be twice a day or six times.) It's a generalised suggestion, but how about choosing to only be alerted to important mail – that is, mails from a certain sender, or those with a certain subject line?

Now, for when you do sit down to “deal” with your mail, you can reduce some of the clutter immediately: look at the list of unread e-mails and quickly respond to those that demand just a couple of lines. Let those not remain on the list – and in your head. To reduce the clutter a little more, delete what you're not never going to deal with. Accept it: you've got a hoard of e-mails that you're never, ever going to respond to or take some action upon, but they're there. Learn to decide what items belong in this category, and delete them when they arrive.

Well, here's a gentle way out (because we know it hurts): spend some time right now and move all such items to a newly-created folder (more on this later), take a backup (more on this later), then delete them forever. Three months down the line, look back on whether you needed them! Cases in point: forwards you're not going to read. Newsletters you're not going to read. Social networking requests you're not going to respond to...

Of course, keeping spam out is rather more than half the story. We'll come to that in a while.

Folders And Files

If you've never bothered to organise your Outlook folders and have left them at the default, you probably have one very large file that contains all your mails. This .PST file (like we said) could get corrupted, and Outlook could take longer to open. Then there's the matter of good organisation: if you split your mail into multiple .PST files, you can choose to open only the one(s) you want – and you'll see them listed separately in the folder list on the left. If you have sub-folders, you'll get smaller lists when you expand a particular folder than if you had one, large folder.

Let's take a typical scenario and say you have three kinds of mails – Work, Personal, and Newsletters. Right now, they're all in one .PST file (unless you've archived some of them). What you need to do is create two more. Go to File > New > Outlook Data File. Supply a filename, and you'll get the options to set a password for it, and to name it. This name – say “Personal” – is

what will show up in Outlook. To avoid confusion, you might want to keep the filename and this name the same.

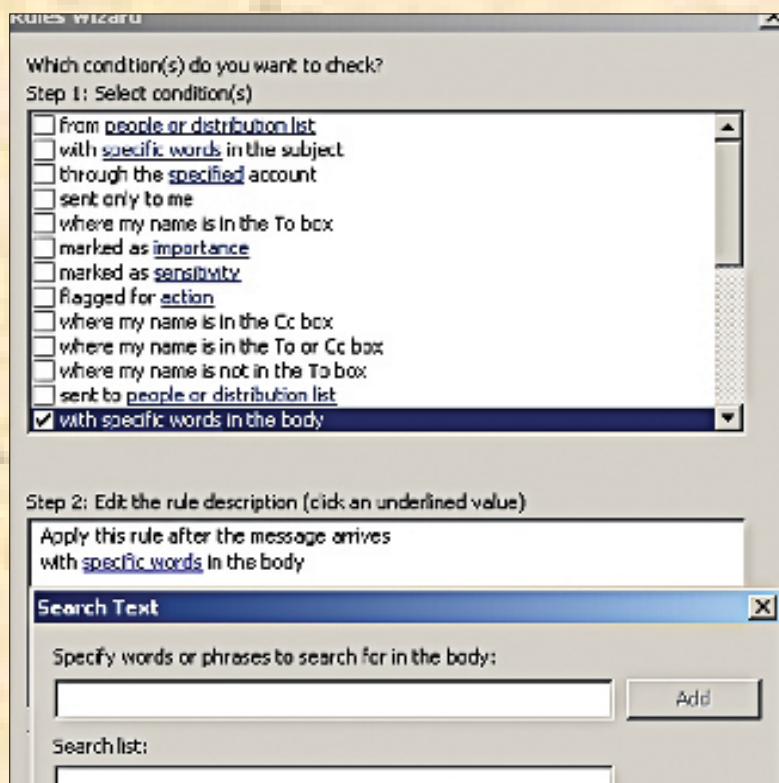
The newly-created file will open up immediately in Outlook, unpopulated, of course. Move your “personal” messages into this one by dragging and dropping. (Before that, if you'd like, you can create sub-folders by right-clicking on the name and choosing the appropriate option.) Then, you can choose to close it (again, by right-clicking on the name). Whenever you need to open it, you just do File > Open > Outlook Data File.

When you try to open an Outlook Data File as above, Outlook will look for files in the default location – note that path. Later, in Explorer, look under that folder, and you'll see all your .PST files. Back these up on a regular basis, very preferably to a different hard disk or to DVD. You'll be able to use them after you re-install Windows or Office – or on a different computer. Restoring the files to a new installation of Outlook is as simple as it gets: choose File > Import and Export..., then select Import from another program or file. Click Next. Highlight Personal Folder File (PST) and click Next again. Say Browse, and select the .PST files you want to recover. (Make sure you've selected Replace duplicates with items imported.) Then click Next and Finish.

The Clean Inbox, #1

The straightforward way to make every incoming message go where it should – the appropriate folder, that is – is to use Rules in Outlook. Thankfully, there's a Rules Wizard.

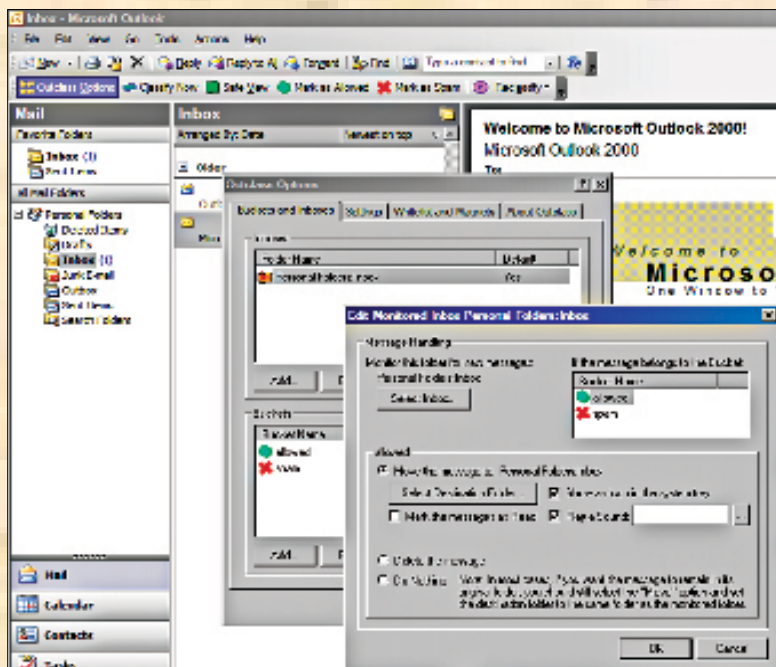
If you're hearing the term “Mail Rules” for



Caption

the first time, it's like this: say you want mails from your (two) siblings to go into a folder called Family. You tell Outlook that if an incoming mail has either of their e-mail addresses in the "Sender" field, it should automatically divert it into the Family folder instead of sending it to the Inbox. That becomes a Rule for Outlook. Similarly, if you want to be alerted with a sound when there's a mail from your boss, you could tell Outlook about that, too. Moreover, it's not limited to the "From" field – Rules could be based on a whole bunch of parameters, such as what time they arrive, whether they have attachments, whether there are certain words in the subject line, and so on.

To use the Wizard, go to Tools > Rules and Alerts, and in the E-mail Rules tab, click New Rule. You'll then have the option of going with the provided Templates or to "Start from a blank rule". Let's look at what happens when you start from a blank rule and choose to "Check mes-



Define actions here

sages when they arrive" (which is the first thing you'll need to select).

It's pretty intuitive. As you select your conditions in the top part of the Rules Wizard window, your Rule gets "built up" in the bottom part. So if you select "with specific words in the subject", those words will appear below – and you click on the words "specific words" to define those words.

Be sure to go through all the options you're provided with under the conditions to be checked for – for example, all mail where your name is not in the “To” box could be sent to a special folder, which you might want to examine only once a day. Then, when you're done creating the rule, you could choose to run it on all messages in your Inbox right then – do that and watch all your mails make their way to the right place! (Assuming, of course, that you've set up the appropriate folders.)

The Clean Inbox, #2

POPFile, many have been saying for years, is the best spam filter there is. It needs to be trained to recognise spam, but it gets trained pretty quickly (if you receive a respectable number of e-mails). Now POPFile as it is can be a little off-putting in terms of the user interface, but there's Outclass, a little program (which works when POPFile is installed) that integrates with Outlook as a toolbar.

Space doesn't permit a complete discussion of how to use the Outclass toolbar. We'll point out and clarify a few things here; the easy-to-follow (with screenshots) documentation is at www.vargonsoft.com/Outclass/release-1.2.4.1.aspx. Outclass hasn't been tested by the developers to work with Outlook 2007, but it does, it seems.

Outclass isn't just for spam filtering – the idea is called “buckets,” which you can think of as imaginary folders. Say you define three buckets – Work, Personal, and Spam. Outclass doesn't know that “Spam” is some kind of evil thing; when it “reads” a message, it decides what bucket it belongs in, depending on how it's been trained. It can then route the contents of the buckets to appropriate folders as you've defined.

In case you're wondering what "training" is about: just after Outclass has been installed and a mail comes in, it's marked as "Unclassified". You use the buttons on the toolbar to classify it as Personal, Work, or Spam. The act of doing this for many messages is called training... simple enough.

There's a useful feature on the default toolbar, called "Safe View". Some spam contains "Web bugs," which means that if you open it by mistake, you could send out a confirmation to the spammer that yours is an operational e-mail address. When you choose to view a potential spam message using the "Safe View" button, you'll view it without triggering the "Web bug."

At the left of the Outclass toolbar is the Outclass Options button; in the options dialog, the first tab is Buckets and Inboxes. “Inboxes” refers to the Outlook folders to be monitored; refer to the documentation for this. The Buckets are the categories. You can define as many buckets as you want, choose whether the button (to classify mail into a certain bucket) should be on the toolbar, and what its name should be.

When you click on the Inbox and then on Edit, you'll get a dialog where you can specify what should be done to a message depending on which Bucket Outclass puts it into.

Remember...

You could go with Rules, or you could let Outclass automatically classify mails for you. You might want to do the latter if there are too many unspecified people who send you mail. If you have a large network of connections, you'll often get mail from people you don't know, and if the only classification you need is, say, into Personal, Work, and Newsletters (apart from Spam), Outclass will do the job well. Also remember that you could set rules in Outlook first, then install Outclass to work only as a spam filter. ☒

Burning Up

With prices falling and media becoming more readily available, almost everyone can afford a dual-layer DVD writer. But which one to buy? That's where we come in...

Jayesh Limaye

It's that time of the year again, and we set out in search for all the optical drives we could get our hands on. Surprisingly, variety doesn't seem to be sought after when it comes to DVD writers, as we only found eight drives to be the popular choice amongst retailers. In addition, we also got our hands on a couple of Blu-ray drives to see what the near future has in store for us.

The Drives

We got DVD Writers from different manufacturers. Some drives came from the old warhorses

such as ASUS, Samsung and Sony, and some from newer entrants such as Moser Baer and Philips. In fact, Moser Baer makes its DVD Writers in collaboration with Lite-On—a famous brand of DVD Writers. Philips DVD Writers have been around abroad for many years, and are now available across India.

Interestingly, most optical drives are now SATA drives, and IDE seems to be dying of old age. The drives we got with the SATA interface were ASUS DRW-1814BLT, ASUS DRW-2014L1T, Philips SPD2514T, Samsung SH-S203, and Sony DRU-845S, while those with the IDE interface were Moser Baer DH-20A4P23C, Philips SPD2414T, and Sony DRU-190A.

FEATURES

Supported Speeds

In our last test, we saw one DVD writer dominate the rest with a maximum write speed for DVD-Rs of a whopping 20x. This time around, almost all the drives support 20x writes, with none going faster, because we seem to have reached the maximum speeds for DVDs. Only the ASUS DRW-1814BLT supported a maximum write speed of 18x, which should still be fast enough for most. What's funny here is that its reading speed tops out at 16x—giving us a DVD writer that can write faster than it reads!

When it comes to DVD-RW and DVD+RW speeds, all the drives support 8x and 6x respectively. All the speed changes seem to have occurred in the dual-layer race, and although all the drives can write to DVD+R DL media at an acceptable 8x, the Sony DRU-845S is capable of 12x and the Samsung SH-S203 manages a whopping 16x! That's the fastest we've seen for dual-layer burning, ever.

With DVD+R DL media available for as little as Rs 100, and prices only seeming to fall more, there's never been a better time to invest in a dual-layer burner.

All the drives also feature the ability to write to DVD-RAM at 12x. The exception was the ASUS, which claims 14X DVD-RAM write speeds. DVD-RAM is great for video professionals, because you can treat your DVD-RAM drive as a hard drive—make folders, create files, even edit them from within the disc, etc.

We have no complaints about any of the trays this time, unlike a couple of years ago

Availability of media, however, is a rather large thorn in the format's side.

Additional Features

The two Philips drives are the only ones to not allow setting the BookType of DVD+R media when burning. Setting the BookType allows you to set the DVD you create to appear as a stamped DVD-ROM to standalone DVD players. This is helpful if your DVD player acts finicky when playing DVD-Video discs that are burnt on PCs.

Just like DVD-RAM, LightScribe is a feature that is fast losing ground due to waning interests. Again, expensive and hard to find media is the cause for this. LightScribe basically allows you to burn a CD/DVD label on to the disc, using the same drive that you're using to burn data on to it. You can create your own labels using text, images or both, and this custom label is burnt to the DVD/CD face using an additional laser. Only the ASUS drives—the DRW-1814BLT and DRW-2014L1T—support LightScribe this time.

Build Quality

When we talk about the build quality of an optical drive, it is the tray that we are talking about. We have no complaints about any of the trays this time, unlike a couple of years ago, when this was a serious issue with quite a few drives. The ASUS, Samsung and the Sony DRU-845S seem to have the best trays and load/eject mechanisms. Another thing to note here is that the ASUS, Moser Baer, and Samsung drives were

How We Tested

The drives were connected to the second SATA port or set as master and connected to the primary IDE channel, according to the type of the drive. The test process consisted of two sections: writing to and reading from different types of media.

Test Rig	
Processor	Intel Pentium 4 540 3.2 GHz
RAM	1 GB of 667 MHz DDR2
Motherboard	ECS PF5 Extreme
Graphics Card	NVIDIA GeForce 7300GS
Hard Drive	Western Digital 80 GB SATA-II
Power Supply	Antec Neo480 480 Watt
OS	Windows XP Professional SP2
Burning software	Nero 8 Ultra Edition

The Reading Tests

Nero CD-DVD Speed was used to note the data transfer rates, access/seek times, CPU utilisation, burst rate, etc, for CDs as well as DVDs. This comes bundled with Nero 8 Ultra.

SiSoft Sandra Pro Business 2007, which is a system-wide performance benchmark as well as diagnostic utility, was used to measure the DVD read speeds and access times.

dbPowerAmp, an audio format conversion and CD ripping tool was used to rip three audio tracks of our test audio CD, located at different positions on the CD. The tracks were ripped to 44 KHz MP3 format at 128 Kbps, and the time was logged.

DVD Decrypter is a tool used to rip DVD video files to the hard drive. This was used to rip a select chapter (a .VOB file, 1 GB

located towards the middle of the media) of our test DVD to the hard drive, and the time taken for this was noted.

The Writing Tests

These included logging the time taken to write to CD-R, CD-RW, DVD-R, DVD+R, DVD-RW and DVD+RW. An assorted data of 700 MB—the latest *Digit* CD—was used to write to CD-R, CD-RW and DVD-RW and the time was logged. Sequential data consisting of a 700 MB file—the same *Digit* CD zipped without compression—was used to write to a CD-R. Similarly assorted and sequential data of 4.38 GB was used to write to DVD-R and DVD+R media and the time taken for this was noted.

The Media

The media used were 52x CD-R from Moser Baer, 10x CD-RW from HP, 16x DVD-R from Sony, 16x DVD+R from Sony and 4x DVD-RW from HP. A point to note is that most of the DVD-Writers can burn DVDs at speeds in excess of 16x, but since such media is unavailable, the 16x media was burnt at the highest supported speed. We used Moser Baer DVD+R DL for dual layer media write test and an assorted data of 8.5 GB was burnt to these at their certified speeds of 8x where possible.

Other Features

Other features such as support for various DVD types, LightScribe capability, capability to set Book Type, tray build quality, silent operation and bundled accessories such as data cable, media, bezels, etc., were also noted and rated to derive the final score. Please note that the specified read and write speeds were not rated, instead we rated the read and write speeds in real world tests.

Digital Tools | DVD Writer Test

the quietest when burning, which makes them better suited for HTPCs.

Bundled Accessories

With attempts to make optical drives dirt cheap, this is one area where all manufacturers are cutting costs, and as a result, the bundles are miserable. Samsung drives are the only drives that come with SATA and power cables, the rest expect you to buy these yourself. The ASUS DRW-1814BLT comes with two LightScribe discs, so you can try out the technology before deciding to buy any more media—which isn't exactly cheap.



Sony DRU-845S
Fancy looking

On the software front, Nero 7 Essentials is the burning software of choice for all manufacturers, while only Samsung bundles Nero Express 7. There is no separate DVD playback software bundled anymore because Nero Showtime is a part of the Nero package and can play even HD movies. Samsung's decision to bundle Nero Express 7 gets it some brownie points here because you also get Nero BackItUp (backup utility) and ReCode (video encoding) in addition to all the regulars that Nero 7 Essentials contains. Only the ASUS DRW-2014L1T and the Sony DRU-845S come with extra bezels to let you change the colour of the drive to match your cabinet.

PERFORMANCE

Reading Nero CD/DVD Speed

All the drives performed well in this test and did not show any abnormal drop in read speeds during any part of the test. Most of the drives lingered around average speeds of about 12x for DVDs, but the ASUS drives underperformed with 9x. In the CD speed tests, the Moser Baer drive and Sony's DRU-190A ruled the roost with 37 MBps. The rest of the drives managed around 30 MBps. A burst rate of over 60 MBps for DVDs was typical for all the SATA drives.



Asus BC-1205PT
'Combo' is the keyword

Next-gen optical drives featuring blue lasers have been launched in India well over a year ago, but have found it hard to get a footing. The reason is the excessive price and inaccessibility of the media. Our test labs received just one Blu-ray drive last year and no HD-DVD drive. This year too, the picture did not change much. We received two Blu-ray drives—ASUS BC-1205PT and Sony BWU-200S. While the Sony can read as well as write to Blu-ray media, the ASUS is a combo drive and its capabilities are limited to only reading from such media. Nevertheless, both drives are completely backward compatible and can write DVDs as well as CDs.

Both drives sport attractive-looking black bezels with the Blu-ray logo. We found that the tray mechanisms of these drives was noticeably different from conventional DVD writers that we tested—it seemed more rugged and slid precisely and smoothly. They come with a SATA interface and feature an 8 MB buffer, necessary for smooth HD playback.

The Sony BWU-200S can write to BD-R and BD-RE media at 4x and 2x respectively. While the Sony sports a DVD writing speed of 16x, the ASUS can do just 12x—too slow when you consider that 20x is the norm today. It



Sony BWU-200S
As expensive as a high-end PC!

took the Sony around six minutes to write to a DVD, which is par for the course, while the ASUS was understandably slower and took over seven minutes and ten seconds. In the Nero DVD Speed read test, the Sony clocked 12.29x, which is a good score, while the ASUS lagged behind with just 9.44x. Unfortunately, we could not test these with BD media—none are available.

Both these Blu-ray drives come with CyberLink BD Solution suite—a full-fledged suite of applications that consist of CD/DVD/BD burning application, HD playback software, backup tools, as well as video authoring and editing application PowerProducer. The ASUS BC-1205PT is priced at Rs 15,500, while the Sony BWU-200S costs a whopping Rs 38,000, making both this drives out of reach of most mortals. We fail to justify the absurdly high price tag and just cannot recommend any of these. We suggest that you wait and watch as the prices are slated to plummet in the next few months.

Digital Tools | DVD Writer Test



Philips SPD2515T
Expensive performer

SiSoft Sandra Pro Business 2007

The SiSoft Sandra file transfer index reconfirmed our previous test, with most of the drives scoring between 12 and 13 MBps, with the ASUS drives lagging with just 10 MBps.

Audio CD And DVD Ripping

Finally, one of the ASUS drives decided to put up a fight! The ASUS DRW-1814BLT was the fastest at ripping the audio CD—taking just 39 seconds—miles ahead of the rest. There was no conclusive winner in the DVD ripping test, with most drives completing the task in around a minute. The ASUS DRW-2014LT was the slowest—it took just under two minutes to rip the DVD file.

Writing Media Compatibility

We faced certain media compatibility issues with some of the drives, despite using certified media that is commonly available and popular.

As far as rewriteable media is concerned, there were no issues with any of the drives. CD-Rs did have some issues—while most drives supported 48x and recognised the 52x certified media at this (48x) speed, some such as the Sony DRU-845S and ASUS DRW-1816BLT could only recognise the media as 40x and 24x respectively.

Only the Moser Baer drive could recognise the DVD-R as 20x, while both the ASUS drives recognised it as 16x, and this affected their performances. The rest of the drives could recognise the DVD-R as 18x. When it comes to our DVD+R media, most drives correctly recognised it as 16x—except for the Moser Baer and Sony DRU-190A, which reported the media to be 18x.



Moser Baer DH-20A4P23C
Almost a winner

simply plug and play



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Scoreboard DVD Writers								
BRAND MODEL	ASUS DRW-1814BLT	ASUS DRW-2014L1T	Moser Baer DH-20A4P23C	Philips SPD2414T	Philips SPD2514T	Samsung SH-S203	Sony DRU-190A	Sony DRU-845S
								
Price (Rupees)	Rs 1,850	Rs 2,100	Rs 1,350	Rs 2,990	Rs 3,190	Rs 1,200	Rs 1,600	Rs 1,750
Comments	+ Good bundle - Media compatibility	+ None in particular - Media compatibility	+ Performance, inexpensive - None in particular	+ Good performance - Too expensive	+ Good performance - Too expensive	+ Performance, inexpensive - None in particular	+ 20x DVD write speed - Slower performance	+ Good performance - A bit slower in DVD+R
Total (Out of 100)	65.04	62.54	67.41	66.42	67.60	76.64	67.21	71.00
Features (Out of 35)	22.33	21.49	17.64	16.03	17.15	24.64	17.43	19.88
Performance (Out of 65)	42.71	41.05	49.77	50.39	50.45	52.00	49.78	51.12
Features								
Drive Specifications								
Write Speeds								
DVD+R/-R (X)	18 / 18	20 / 20	20 / 20	20 / 20	20 / 20	20 / 20	20 / 20	20 / 20
DVD+RW/-RW (X)	8 / 6	8 / 6	8 / 6	8 / 6	8 / 6	8 / 6	8 / 6	8 / 6
DVD+R DL/-R DL/-RAM (X)	8 / 8 / 14	8 / 8 / 14	8 / 8 / 12	8 / 8 / 12	8 / 8 / 12	16 / 12 / 12	8 / 8 / 12	12 / 12 / 12
CD-R/RW (X)	48 / 32	48 / 32	48 / 32	48 / 32	48 / 32	48 / 32	48 / 32	48 / 32
LightScribe/BookType (Y/N)	Y / Y	Y / Y	N / Y	N / N	N / N	N / Y	N / Y	N / Y
Interface (IDE/SATA)	SATA	SATA	IDE	IDE	SATA	SATA	IDE	SATA
Data Buffer Size (MB)	2	2	2	2	2	2	2	2
Tray Build Quality (Scale of 10)	8	8	7	7	7	8	7	8
Silent Operation (Scale of 10)	8	8	8	7	7	8	7	7
Package Contents								
Data Cable (Y/N)	N	N	N	N	N	Data, Power	N	N
Manual/Quick Setup Guide (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y
Media—CD/DVD (Y/N)	2 LightScribe CDs	N / N	N / N	N / N	N / N	N / N	N / N	N / N
Software—Burning	Nero 7 Essentials	Nero 7 Essentials	Nero 7 Essentials	Nero 7 Essentials	Nero 7 Essentials	Nero Express 7	Nero 7 Essential	Nero 7 Essential
Software—DVD Playback	Nero ShowTime	Nero ShowTime	Nero ShowTime	Nero ShowTime	Nero ShowTime	Nero ShowTime	Nero Showtime	Nero Showtime
Software—Other	None	None	None	None	None	BackItUp, ReCode	None	None
Miscellaneous (Extra Bezels, Etc.)	Leather CD Pouch	Black bezel	N	N	N	N	N	Black bezel
Performance								
READING TESTS								
Nero CD/DVD Speed (DVD)								
Avg. Transfer Rate (x)	9.08	9.07	12.17	12.11	12.16	12.14	12.12	12.14
Random Access/Seek Time (s)	19	19	3	3	3	3	3	2
CPU Utilisation (4X)	16 %	14 %	33 %	24 %	13 %	11 %	26 %	13 %
Burst Rate (MBps)	61	60	26	26	66	68	25	68
Spin Up/Down Time (s)	4.02 / 2.8	1.1 / 2.11	1.81 / 3.34	1.66 / 3.33	1.65 / 3.25	1.61 / 3.15	7.88 / 4.26	1.52 / 3.13
Eject/Load Time (s)	2.28 / 1.05	1.56 / 1.74	1.49 / 1.43	1.58 / 1.02	1.63 / 1.02	1.63 / 1.01	1.57 / 1.66	1.69 / 1.05
Recognition Time (s)	17.9 s	17.74 s	15.19	13.44	12.88	13.26	15.38	12.68
Nero CD/DVD Speed (CD)								
Avg. Transfer Rate (x)	30.93	30.93	37.16	31.46	31.55	31.55	36.91	31.43
Random Access/Seek Time (s)	16	16	3	3	3	3	3	3
CPU Utilisation (8X)	3 %	3 %	12 %	7 %	4 %	4 %	12 %	4 %
Burst Rate (MBps)	44	43	22	17	27	29	17	30
Spin Up/Down Time (s)	2.91 / 2.9	5.69 / 1.77	5.5 / 4.88	1.76 / 2.68	1.74 / 2.67	1.76 / 2.56	2.48 / 2	1.74 / 1.29
Eject/Load Time (s)	2.15 / 1.04	1.6 / 1.03	1.49 / 1.35	1.58 / 1.03	1.64 / 1.02	1.63 / 1.01	1.51 / 1.62	1.68 / 1.05
Recognition Time (s)	15.27	14.97 s	11.07	9.35	9.45	10.15	12.02	9.09
SiSoft Sandra Pro Business 2007 (DVD)								
Drive Index (MBps)	10	10	13	12	12	12	13	13
Access Time (ms)	93	83	115	85	106	124	114	119
Audio CD Ripping—dbPowerAmp (s)	39.1	47.5	44	51	49.9	49.5	51	50
DVD Video Ripping—DVD Decrypter (s)	78.1	113.9	65.1	57.5	59.4	59.2	60.4	60.3
WRITING TESTS								
CD-R Assorted/Sequential (s)	230.2 / 231.5	235 / 236	163.8 / 167	175.3 / 173.8	181.2 / 178.7	169.9 / 169.7	168.2 / 167.9	183 / 182
DVD-R Assorted/Sequential (s)	439.8 / 444.3	368 / 369	326.8 / 307	312.9 / 310.6	310 / 309.7	312 / 311.3	312.5 / 311.5	311.6 / 307
DVD+R Assorted/Sequential (s)	363 / 371.8	364 / 366	339.4 / 325.6	346.8 / 339.3	345 / 345	310 / 308.2	330.2 / 323.4	343.6 / 349
DVD-RW 700 MB Assorted (s)	151.4	152.7	141.4	136.8	148.9	137.9	140	138.7
DVD+R DL (s)	1147	1146	1144	903	906	903	1018	904





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CD Writing

The Moser Baer drive was the quickest in the CD-R write test, followed closely by the Sony DRU-190A and Samsung. ASUS drives were the slowest and this is attributed largely due to the media compatibility issues that they face. Sony, Samsung and Philips drives were quicker in writing to CD-RW media.

DVD Writing

The Philips SPD2514T was the found to be the fastest in assorted DVD-R writes, though not by an especially large margin; it was closely trailed by the Sony and Samsung drives. The Moser Baer and Sony DRU-845S were the fastest in sequential DVD-R write test, taking just seven seconds over five minutes. The Philips and Samsung were close behind. Media compatibility issues dogged the ASUS drives as they delivered considerably slower performance. Coming to DVD+R writing, we found that it was the Samsung drive that outperformed all the other drives this time, and by a commanding margin. The slowest drives were yet again the ASUS drives, but the performance difference was not as much as in the case of DVD-R writing. Writing to dual layer media did not change the picture, the only difference was that the Moser Baer drive could not keep up with its earlier performance. But in general, there was not a huge difference between the performance of the drives in this case, the leaders here were Philips, Samsung, and Sony drives.

Winners

If we took a look at raw performance, most of the drives did fairly well. We took a final call by taking into consideration, the price. There was a huge difference between the prices of DVD Writers—some were priced at a high of around Rs 3,000, while some were priced as low as Rs 1,200. The price was therefore, the decider.

Trailing behind the Samsung, the Sony DRU-845S misses out from topping the performance chart by just a whisker. It comes with a decent bundle of Nero 7 Essential and also a black bezel that lets you match its appearance with your PC cabinet. Boasting of dual layer DVD write speeds of 12x and priced at just Rs 1,600, this drive deserves a special mention here.

Moser Baer was next in line, along with the Sony DRU-190A—both these drives performed well and were priced well too. Although the Philips drives performed well—better than the other drives in some tests—their prices are unreasonably high, and that

Editor's Pick



The award for the Editor's Pick as well as the Best Performer were swept up by the Samsung

Samsung SH-S203
The best of all!

SH-S203. It sports 20x writing speeds for DVD+R and DVD-R and we were surprised to see that it can write to dual layer DVD+Rs at 16x! Without any exceptions, this drive delivers top-notch performance and tops the chart in all the writing and reading tests with all kinds of media. It took just over five minutes to burn 4.38 GB data to the DVDs, in both the assorted and sequential test. It completes burning a 700 MB CD in less than 170 seconds. It excels in the reading tests too, with a score of 12.14x in Nero DVD Speed. The price of this drive is the lowest amongst the lot—just Rs.1,200 and yet it comes with a great bundle that includes SATA data and power cable as well as Nero Express 7 suite, which includes DVD playback, data backup as well as video encoding software. We were left with no choice but to award all the awards to the Samsung SH-S203.

is the reason why they ended up at the bottom end of the chart.

Closing Thoughts

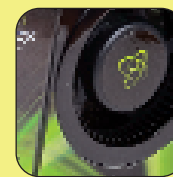
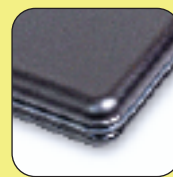
As we have seen, there is not too much that sets these DVD Writers apart, especially in terms of writing speeds. What does differ is the prices and the warranty and service offered. Now we can't test how long these drives will last, but warranty is something you should keep your eyes open for.

With falling prices, combo drives (DVD-ROM/CD writer) have all but disappeared, and you should refrain from buying one—stick to DVD writers. Also, because optical drive read and write speeds are a lot slower than hard drives, the performance difference between writers based on interface—SATA or IDE—is negligible. Most newer motherboards will have enough SATA ports, so you can safely opt for a SATA DVD writer—the difference lies not in the performance, but in the cable clutter. SATA cables being thinner, your cabinet can do without wide IDE cables getting in the way of everything.

The optical drive market is in turmoil because of the stalemate between the Blu-ray and HD-DVD camps. With more movie studios preferring Blu-ray, it could be the format of the future. This will be good for us consumers, because finally manufacturers will pick a side and prices will start to plummet. Only time will tell though, and unfortunately, for now, Blu-ray drives remain a rarity, and quite expensive. ■

jayesh_limaye@thinkdigit.com

Contact Sheet		DVD Writers		
Brand	Company	Phone	E-mail	Web site
ASUS	ASUS Technology Pvt. Ltd.	+91-22-67668800	media_india@asus.com	in.asus.com
Moser Baer	Moser Baer India Ltd	+91-11-40594500	itsales@moserbaer.net	www.moserbaer.com
Philips	Philips Electronics India Ltd	+91-22-66912325	vishal.d.jamdar@philips.com	www.india.philips.com
Samsung	Samsung India Electronics Pvt. Ltd.	+91-11-41511234	c.serrao@samsung.com	www.samsung.com/in
Sony	Rashi Peripherals Pvt. Ltd.	+91-22-67090909	sony@rptechindia.com	www.sony.com



Lenovo Y410 Y So Plain Looking?

The Y series from Lenovo is touted as the *home entertainment* series—the good speakers and a few additional multimedia buttons are a step in the right direction; the plain décor isn't! The Y410 is a good-looking notebook overall, though—the outer body

panels have a quality finish, and this 14.1-inch unit feels sturdy.

The glossy, 1280 x 800 display is clear, crisp and vibrant, with good contrast ratio. The keypad offers good feedback, but it's a little squishy. The shortcut keys are well-laid-out, and you'll have no issues with using the nifty little add-on keys like the volume adjustment, mute, or even the "Novo" key,

which switches between power modes to optimise battery or performance. There is a neat array of multimedia keys that allows you to listen to music without logging in to Windows (after inserting an audio CD).

The Y410 is available in configurations including a speedy Core 2 Duo T7100 (1.8 GHz) and an NVIDIA GeForce 8400M GS with 128 MB of video RAM. The one we received had a Core 2 Duo T5450 and Intel's GMA 950 graphics solution, which is good enough for most multimedia work, including HD movie playback; just don't expect to game without a graphics card.

RATINGS	
Features	★★★★☆
Performance	★★★★☆
Build Quality	★★★★☆
Value for Money	★★★★☆
Overall	★★★★☆

Specifications

Core 2 Duo T5250; 1 GB RAM; Graphics: Intel GMA 950; 1280 x 800; 14.1 inches; 160 GB HDD, 5400 rpm; Weight: 2.4 kg

Contact: Lenovo India
Phone: NA
E-mail: directlenovo@in.lenovo.com
Web site: www.lenovo.com/in
Price: Rs 38,500

Buffalo MiniStation TurboUSB 80 GB Portability With God Speed

The Buffalo MiniStation TurboUSB 80 GB portable hard drive is in a new class of high-performance external hard drives featuring the TurboUSB function that claims to increase speed. It's a laptop SATA hard drive housed in a tough black plastic casing surrounded by cushioning material that absorbs shock. One of its major drawbacks is that it requires an extra USB cable for power.

TurboUSB dramatically increases the drive's speed; by default, this is disabled, but you can enable it using the accompanying software. It took 56 seconds to write 1 GB of assorted files to the drive in the normal mode; it could

achieve the same in TurboUSB mode in just 43 seconds flat—an increase of 23 per cent! TurboUSB isn't a drive "mode" as such—it's a software implementation, so you need to install the utility and enable this feature on any PC that you wish to use this drive with, to get the extra performance.

The bundled SecureLockWare software uses the powerful AES encryption algorithm to safeguard your data from prying eyes. It can not only

encrypt files and folders, but also has an option that lets you encrypt the entire drive, making it virtually impossible to access the contents without entering the password. Memeo Backup is yet another useful tool that comes with the drive—it lets you take automatic and manual backups of your data on the drive.

The Buffalo MiniStation TurboUSB 80 GB impresses with its performance, costs Rs 3,960, and comes with a two-year warranty. For just a little more, you can get a portable drive with twice that capacity and a year more of warranty—that's



what stops us from recommending this drive.

Specifications

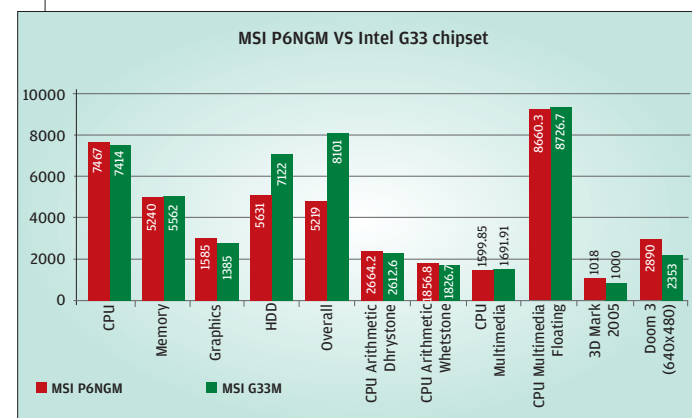
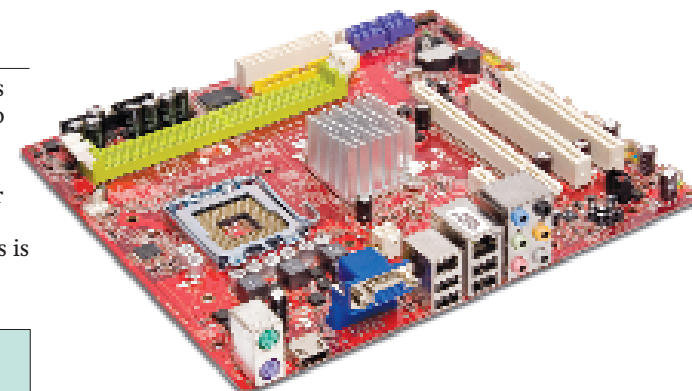
80 GB 5400 rpm SATA; Interface: USB 2.0 High-speed; Dimensions: 12.7 (W) x 2 (D) x 8.4 (H) cm; Weight: 190 gm

Contact: Advent Infotech Pvt Ltd
Phone: +91-011-41436751
E-mail: anjan@adventelectronics.com
Web site: www.buffalo-asia.com
Price: Rs 3,960

MSI P6NGM Another HTPC Candidate!

Based on NVIDIA's new MCP 73 platform, the P6NGM is a mid-sized PCB. It supports all Core 2 Duo and Core 2 Quad processors; there are 2 PCI slots, 1 PCIe x16 slot for a discrete card, 2 memory slots, and 4 SATA

ports. The P6NGM supports 1333 MHz FSB (officially) so all Penryn dual- and quad-cores should work fine. A 4-pin CPU power connector defines the new 8-pin standard. The onboard graphics is a GeForce 7050 solution—



D-Sub and HDMI connects have been provided as well.

RATINGS

Features	★★★★☆
Performance	★★★★☆
Ease of Use	★★★★☆
Value for Money	★★★★☆
Overall	★★★★☆

Specifications

NVIDIA MCP 73 chipset; 1 x16 PCIe, 2 x PCI, 1 x PCI X1 slots; 4 x SATA 2.0, 1 x IDE ports, 1 x D-Sub, 1 x HDMI connect

Contact: Micro-Star International
Phone: 011-41758808
E-mail: sanyam@msi-india.com
Web site: www.msi-india.com
Price: Rs 8,500

Genius iTempo 800CD A Costly iPod Dock That Fails To Impress

Genius' iTempo 800CD is a product aimed at iPod users, but it does a lot more than just playing music from your 'pod. There is an SD / MMC slot and space for a USB drive as well, so you don't have to own an iPod to use this. Dump some music on your USB drive or pop in a CD, plug it in, and you're ready to go. It's also an AM / FM radio receiver. The slot-loading optical disc reader only reads CDs, though. The drive has no foam padding to prevent dust from getting into the player, and the mechanism that pulls the disc in is a little crude.

For a product that will end up in people's living rooms, the iTempo is not exactly attractive. The body is heavy and sturdy, but has a plasticky feel. The blue backlit screen on the front looks decent, and the panel surrounding it has a glossy

finish. The quality of buttons and volume dial is poor, and the mesh on the speakers looks cheap.

The remote control has the same set of buttons as on the player, and it resembles remotes that came with some early CD ROM drive kits—thin, light and very clunky buttons.

Sound quality isn't impressive. The speakers are a total of 20 W RMS, which isn't a lot, but



adequate for the size. You can use the auxiliary out to connect to better speakers. There are a few equaliser settings, and the only manual changes you can make are to the amount of bass and treble. The menus and the working of the iTempo 800CD need some time getting used to.

We aren't impressed by this product, especially since it retails at Rs 13,500. It's an average performer and doesn't make a great

fashion accessory for your living room either.

Specifications

2.1 Speakers, 20W RMS, AM / FM Radio Tuner, SD/MMC and USB supported, Antenna and remote control supplied.

Contact: KYE Systems Corp
Phone: 011-41580611
E-mail: sales_india@geniusnet.com
Web site: www.geniusnet.com
Price: Rs 13,500

XFX 8800GTS Alpha Dog Edition

Pull Her Dog Tags Mate...

XFX's "serious gamer" Alpha Dog Edition is here, featuring all the 128 shader units it's supposed to. The only thing distinguishing it from the GTX / Ultra models is the 256-bit memory interface.

The card features a core factory overclocked to 678 MHz (the default Core is 650 MHz), and here's where the fun begins—the core is now faster than an 8800GTX, and the scores show it. Shader clocks are also up to 1700 MHz from the default of 1625 MHz. Of course, the 8800GTS Alpha Dog still has the restriction of 16 ROPs (Raster Operations), as opposed to the 24 ROPs on the GTX / Ultra cards.

Nevertheless, this card has some serious horsepower, and runs

noticeably cooler than the 8800GTX and Ultra cards; it's a lot shorter, too—9.5 inches opposed to 11 inches on the older cards. Priced lower than its older sibling, running cooler and basically having less power requirements seems like the XFX 8800GTS 512 Alpha Dog Edition has all the accolades in its kitty.

Lost Planet is a sweet bundle. At Rs 25,000, the XFX is costly now. Yes, it's around Rs 5,000 cheaper than the cheapest 8800GTX, but the new 8800GT core changes things considerably. Eighty-five per cent of the performance at nearly half the price! This card is a mite too expensive to be of any use to the discerning gamer who will likely buy two 8800GTs for a little



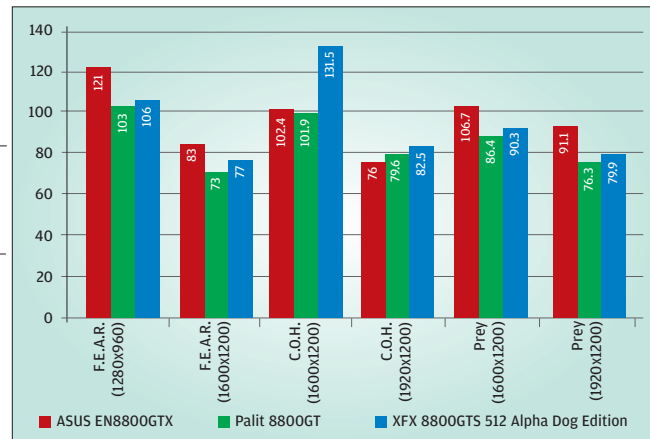
more than the price of a single 8800GTS, and use them in an SLI setup.

RATINGS	
Features	★★★★★
Performance	★★★★★
Value for Money	★★★★★
Bundle	★★★★★
Overall	★★★★★

Specifications

128 Shader Units; Core Speed: 678 MHz; Memory: 2,000 MHz; Memory Bus: 256 bits

Contact: Rashi Peripherals Pvt Ltd
Phone: 022-67090909
E-mail: xfx@rptechindia.com
Web site: www.xfxforce.com
Price: Rs 25,000



Palit 8800GT 512 Sonic

Sonic Boom!

The 8800GT Sonic utilises a very simple and radically different cooler from the stock NVIDIA cooler, and isn't bad for it. Though not as attractive, a simple circular heatsink and

Palit has really got the Sonic's thermals spot on! *Tomb Raider Anniversary* is bundled—sweet for all the Lara Croft fans floating around.

The 8800GT Sonic proved



a large embedded fan do get the job done better. The heatsink extends to strips that run over the memory chips, passively cooling them. Temperatures are around 15 degrees less than the stock cooler, meaning

to be a pleasure to test. It comes really close to embarrassing its older siblings at half the price, even less. For reference, we're throwing in our stock 8800GTX for a real comparison. We've used the

highest settings that gamers are generally likely to use—4x AntiAliasing and 8x Anisotropic Filtering have been enabled; all other settings are at their maximum values.

Priced at Rs 14,750 (chances are you'll get this card a bit lower on the street), the Palit 8800GT Sonic is an impressive offering that delivers performance with a cool head. If you're looking for a fast DX 10 card, buy the

RATINGS	
Features	★★★★★
Performance	★★★★★
Bundle	★★★★★
Value for Money	★★★★★
Overall	★★★★★

8800GT Sonic without any qualms—we guarantee satisfaction. If you're the kind who wants to run games at maximum detail, invest in an SLI board and pick up two of these.

Specifications

112 Shader Units; Core Speed: 600 MHz; Memory: 512 MB; 1800 MHz; Bus Width: 256-bit

Contact: Mediaman Infotech Pvt Ltd
Phone: 022-23828100 / 23823100 / 011-26293001 / 3002
E-mail: dinesh@mediamangroup.com / himanshu@amigointernational.biz
Web site: www.palit.biz/en/
Price: Rs 14,750

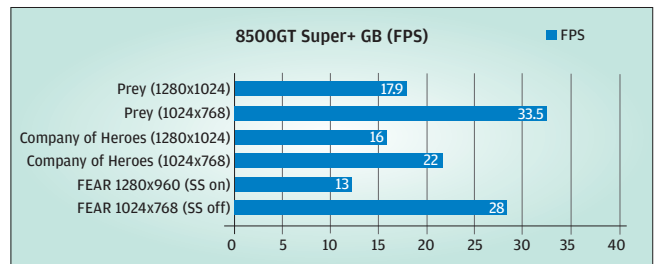
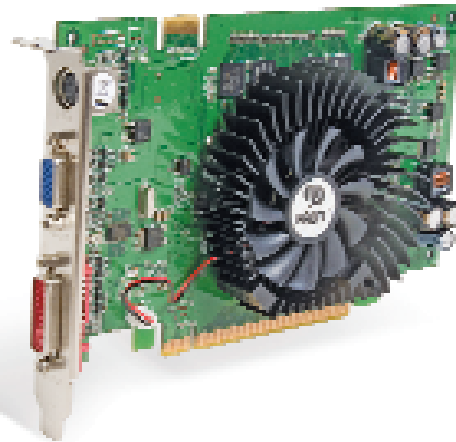
Palit 8500GT Super+ 1GB

1 Gig Too Much?

The first time we saw the 1 GB badge on the Palit 8500GT, we did a double-take to make sure—this is a lot of memory to waste on a core that has 16 stream processors (half the number on the 8600GT). We figure half this memory will just be sitting around doing nothing—after all, we've

seen most 8600GTs with 256 MB of memory working fine with huge textures.

The card does with a minimal cooling setup—circular heatsink with an embedded fan—but then the 8500GT is a very cool customer. Benchmarking the Palit 8500GT showed us that our initial reactions



were right. The Core doesn't really have enough horsepower to keep all that memory busy. However, at higher resolutions we were able to get a couple of extra frames compared to other 8500GT cards.

Rs 5,250 doesn't seem much for a 1 GB card, but an 8600GT will outperform the Palit 8500GT Super+ by around 200 percent and

cost just Rs 1,500 more. We wouldn't recommend this card to a gamer, and neither to someone looking for an HTPC. Look for 256 MB of RAM—its all you'll need in this category.

Specifications

GF 8500GT chipset; 16 Shader Units; Core: 450 MHz; Memory: 800 MHz; 1 GB video memory

RATINGS	
Features	★★★★★
Performance	★★★★★
Bundle	★★★★★
Value for Money	★★★★★
Overall	★★★★★

Contact: Mediaman Infotech Pvt Ltd
Phone: 022-23828100 / 23823100 / 011-26293001 / 3002
E-mail: dinesh@mediamangroup.com / himanshu@amigointernational.biz
Web site: www.palit.biz/en/
Price: Rs 5,250

BrowseControl 3.1

Basic Network Adminstrating Utility For The Cyber-Café Owner

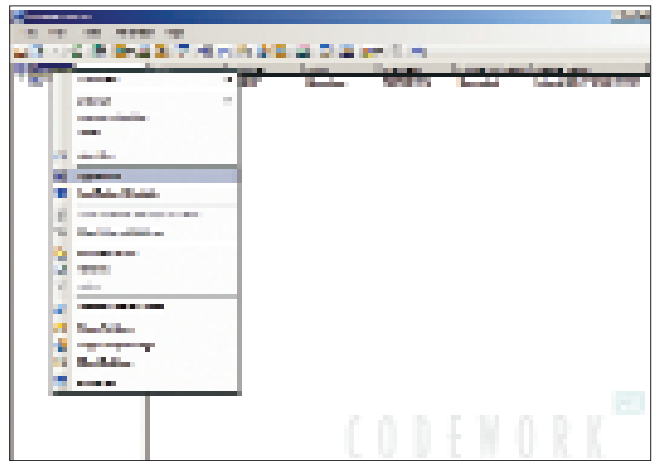
BrowseControl is an Internet management tool with an easy to use interface that gives you real-time control over multiple computers on a network. The installation is rather simple—you first need to install the package on the machine that will be the main machine. The client installer can be installed over the network or manually by installing the program on every client machine.

Client machines are assigned to groups, and permissions for groups can be set, which will affect all the machines in that group. This way, you can allot all members of a team in one group and give suitable permissions to each group depending on requirements. Most of the features and permissions are (obviously) to do with the access to Internet sites. Access to sites and permissions to down-

loading certain file formats can be denied. Other than that, external storage devices like CD/DVD drives and USB drives can be disabled by a couple of clicks. Machines can also be forcibly shut down.

An interesting thing with BrowseControl is that there are no traces of the software running, so users on the client machine will find it a bit difficult to bypass the software. The other good thing with BrowseControl is that it allows you to set multiple time schedules for pretty much everything—you can even ensure that certain programs cannot be run during the day, for example.

RATINGS	
Features	★★★★★
Performance	★★★★★
Ease of Use	★★★★★
Value for Money	★★★★★
Overall	★★★★★



This software is fairly easy to use and the Windows help file is there for those who still need it. It has a good explanation of all the features along with screenshots making it even easier.

BrowseControl would be perfectly fine for cyber-café or smaller educational institutions. It can also be implemented in bigger offices

where strict Internet access permissions need to be implemented.

Specifications

Requires Windows 2000 / 2003 / XP / Vista

Contact: Codework Solutions Pvt Ltd
Phone: 0484-4055678
E-mail: india@codework.com
Web site: www.browsecontrol.com
Price: Rs 1,001; 5-user: Rs 2,761

Canon PIXMA MX318

Yay! For Features, Nay! For Performance

The PIXMA MX318 is the latest All-in-one (AIO) from Canon. It is a lustrous grey with a gloss finish, along with black; this MFD does not have the best build quality—particularly questionable are the trays.

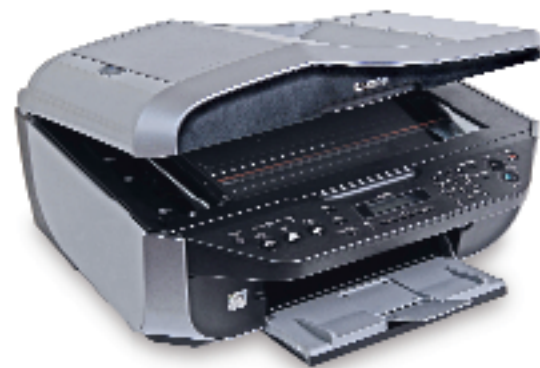
The input tray can accommodate 100 sheets of paper—just enough for a SoHo setup. Print resolutions up to 4800 x 1200 dpi are supported, and the optical scanner resolution is 1200 x 2400 dpi—promising remarkably good print and scan quality. Sheet-fed as well as flatbed scanner options are available. A 30-sheet document feeder lies hidden until you flip it open.

The control panel is fairly simple to use, with buttons dedicated for each of the multiple functions. A single line mono LCD displays all the necessary status and settings information. It features PictBridge port, but the absence of memory card slots was conspicuous. It connects to the PC via a USB port, but there is no

network port. It supports high-speed Super G3 fax, with 20-destination auto-dialling; the fax memory of 50 pages is ample for most needs.

Print speed is very slow: it takes over half a minute to print black text at the best quality, while printing the combi-document takes over a minute at normal quality and well over hundred seconds at best quality. It is relatively faster at printing photos, taking just under four minutes for an A4 photo, and it does a good job at it with brilliant colours and good definition. The black text does not have clear edges, though it is not smudged. Combo documents are printed relatively better, the colour part in particular. It even manages to print yellow text against a black

RATINGS	
Performance	★★★★○
Features	★★★★○
Ease of Use	★★★★○
Value for Money	★★★☆☆
Overall	★★★★☆



Specifications

Printer: Resolution: 4800 x 1200 dpi (effective); Input tray: 100 sheets

Scanner: Type: Flatbed and Sheet-fed; Resolution: 1200 x 2400 dpi (optical); Media size: A4; ADF: 30 sheets

Fax: Speed: 33.6 Kbps; Memory: 50 pages; Speed dialling: up to 20 numbers

General specifications:
Dimensions: 46.5 (W) x 44 (D) x 23 (H) mm; Weight: 8.6 kg;
Power consumption: Standby: 1.8 W; Off: 1.8 W; Max: 16 W

Contact: Canon India Pvt. Ltd.
Phone: 1800-345-33-66
E-mail: info@canon.co.in
Web site: www.canon.co.in
Price: Rs 10,995

background well. Black-and-white copying takes 28 seconds per page, while colour copying takes 41. It does a rather bad job at this, and the copies appear washed out.

Canon bundles along the Scansoft PaperPort application that lets you scan as well as manage documents. It even has OCR capability, thus saving you the cost of buying OCR software. Control Center 3 brings all the features of the MFD at your fingertips.

The Canon PIXMA MX318 has the features, but doesn't have the performance to back them up, and the considerably high price tag of Rs 10,995 does nothing to help things in its favour.



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Intel D5400XS

Gross XS-es

If you thought Intel's latest X48 chipset was really something, wait till you see this—we got our socks knocked off and the tingle left behind in our toes was enough to assure us we were looking at something radically different. In fact, this motherboard is so new, there were no details of it on the Net as of this writing.

Presenting the
Skulltrail in its desktop
(yes, *Desktop*) avatar—Intel's

of ECC memory through four DIMMs and the ability to house two quad-core processors, the D5400XS is bound to leave a trail of skulls in its ponderous wake...

And it's a Desktop-oriented board too—with Intel's latest IDT STAC 9274D 8-channel HD-supporting audio codec, six SATA ports, two E-SATA ports, and even nifty add-ons like power and reset buttons, and an HDD



D5400XS—a consumer board featuring dual processor support, and four, SLI-capable PCIe graphics slots, among other things—but don't say that out loud. The D5400XS is based on Intel's MCP 5400 Northbridge (MCH), and a 6321ESB I/O ICH. Somewhere between lie two MCP 100s from NVIDIA—that's what enables SLI on this board.

With support for 16 GB

activity LED right on the board. There's also a two-digit POST (Power on Self Test) debugger. The BIOS is chock-full of overclocking options—CPU, memory and FSB overclocking and overvolting are supported, and strangely enough, recommended. All this makes the D5400XS one helluva desktop board, although its overclocking potential is yet to be seen. The reason we kept our

unlocked CPUs) was that at 3.2 GHz, we felt these quad-cores were close to their thermal limits. The thermal specs of these 45nm cores are even better than the G0 stepping Core 2 Quads we tested earlier, but we didn't want to push anything.

While you won't really appreciate the power of two processors with most regular tasks, if you're a 3D designer, animator or hardcore gamer, you will

Benchmarks	
W Prime (32M)	6.562
PC Mark 2005	
CPU	10208
Memory	5452
Graphics	11918
SiSoft Sandra 2007	
CPU Arithmetic (Dhrystone)	114876
CPU Arithmetic (Whetstone)	90840
CPU Multimedia (Integer)	682306
CPU Multimedia (Floating)	372881
3D Mark 2006:	
Doom 3 (640x480, 1600x1200, 4xAA, 4xAF)	247.6
Doom 3 (1600x1200, 4x AA, 8x AF)	200.6
Far Cry (640x480)	317.67
Far Cry (1600x1200, 4x AA, 8x AF)	154.59

shenanigans to a minimum (despite the fact that Intel helpfully provided us with

definitely appreciate the sheer horsepower at your fingertips. With multi-tasking or even multi-threaded applications, the difference astonishes—especially with the two QX9775 Core 2 Extreme processors, which are basically 45nm, 3.2 GHz quad-cores. Note that the pin layout on the board is slightly different—Socket 771 (LGA) CPUs are supported. (Regular Desktop CPUs are in the LGA 775-pin format.)

Check out our benchmarks (above) to see how this monster kicked hindquarters.

We don't expect the D5400XS to break any sales records—just benchmarks. This platform may just kick off in the workstation market, particularly for rendering machines, where the enormous multiprocessing CPU and GPU power will be harnessed better.

The entire platform is power-hungry. If you're looking at SLI, two quad-cores, and around three hard drives, opt for a 1000-watt power supply... Also invest in a decent air conditioner—and/or good aftermarket CPU coolers; these babies dissipate 150 watts each.

Buy this only if you can really afford to—at around Rs 25,000 for just the board, it's one of those luxuries that'll just add to your collection of nice things, right beside the Rolex and Porsche!

TIPS

SECRETS THAT KEEP YOU AHEAD IN THE RACE

30 MINUTES EXPERT

Norton 360 60
 Skype 61
 FFDShow 62
 River Media Jukebox 66

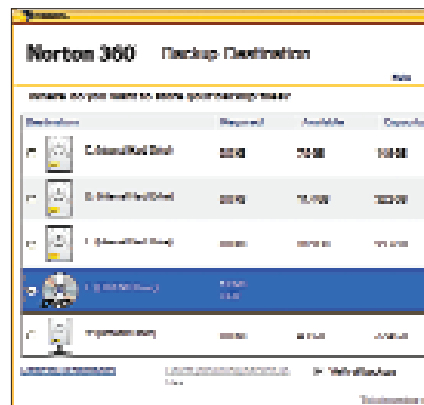
mIRC 63
 niBiTor 65

NORTON 360

Even though the competition has increased in the anti-virus and (in general) the security software market, Norton continues to steam ahead with its variety of suites and applications. We reviewed Norton 360 a few months ago and thought it pretty good. It was a little lighter than most Symantec products and, more importantly, it was easy to use for a newbie. Hidden away behind its colourful yellow interface lies a few advanced features, and these are what we'll be looking at here.

Backing Up Data To Disc

Backups are important to keep all your important data safe from virus attacks. Norton 360 can back up data to a specified location, even to CD or DVD. Click on Tasks & Settings, then on Change Backup Settings. Step 2



Data backups can be made onto CD or DVDs as well

here has the Backup Location. Click on Change and select your CD-Writer or DVD-Writer drive. Click OK. Choose the folders to be backed up like you normally would. This time, when the backup process starts, the data will be put onto disc instead of a local hard drive.

Once you've activated your copy of Norton 360, you'll get free online storage where you can back up your data to. In the same window where you selected the CD / DVD drive as your backup destination, you'll also find Secure Online Storage.

The Controls?

Any newcomer to Norton 360 will be baffled by the interface—sure, it looks nice, but there are no clear buttons for scanning or for any of the other tasks. Go to Tasks & Settings. This window has all the functions. To scan, click the Run Scans link and choose from the type of scan you want to run. You can run a custom scan with only a few checks done by clicking Let me Choose.

Full Backup

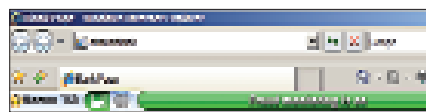
There is a big difference between the Quick and Full Backup in Norton 360. Quick Backup is used to back up all the important documents from your My Documents. The Full Backup will scan your entire hard drive for important files to back up. The Complete Backup is therefore the preferable one. To choose Complete Backup, click on Tasks & Settings. Click Change Backup Settings. At the top right, click on Full Backup and click Save Settings.

The Full Backup might still miss out on certain important data that it can't

detect. In such cases, you can manually add folders and files by clicking on the Add a file or Add a folder buttons in the Backup Settings window.

The Phishing Bar In Internet Explorer

The Phishing Bar in Internet Explorer is there to warn you of sites that could possibly be fakes. Norton 360 refers to its own database and provides warnings through the bar. This bar, if you do not want it, can be disabled by clicking on View > Toolbars > Show Norton Toolbar. If you want to disable the Phishing detection feature completely (if you use a browser not supported by Norton 360), you can do so by clicking on Tasks & Settings and then on Change Advanced Settings. On the right, uncheck the Transaction Security box. You can also disable pop-ups and updates from here if you wish to.



Add the Norton anti-phishing toolbar to IE

PC Tune-up Schedule

Setting a schedule for the PC Tune-up is a good idea, we tend to hate running the whole line-up of scans when we're working. It's best to set a schedule time or an automatic weekly or monthly tune-up schedule. Go to



Scheduling PC tune-up sessions; it's a good idea to have the tune-up running when the PC is idle

Tasks and Settings, and then click on Change Advanced Settings from the menu on the right. Select Task Scheduling Settings. By default, the schedule for PC Tune-up is set to Automatic, and Norton 360 runs the schedule whenever it finds it suitable. Click on the drop-down and click on Weekly or Monthly scans. Choose the days or dates and the time you want the tune-up to start. Similarly, a schedule can be set for the backup as well.

Undo And Exclude

The Undo and Exclude feature is implemented so that, should Norton 360 make any drastic changes to your data,

they can be undone. Go to Tasks and Settings > Change Advanced Settings > Undo & Exclude. There are tabs for Virus & Spyware, Browser Settings, and Network Addresses. Any changes to these components can be restored by clicking on the item and clicking Restore or Restore item to System.

Enabling And Disabling Automatic Tasks

During a complete PC Tune-up, Norton 360 runs a whole lot of tests, which you might not want it to do. To disable some of these, click on Tasks and Settings > Change Advanced Settings > Undo & Exclude. For example, if you



Tasks that run automatically can be disabled

don't want to do a disk backup, you can uncheck the checkbox for the Backup task. Click Close when done.

Creating Firewall Rules

Click on Tasks and Settings and then on Change Advanced Settings > Firewall Protection Settings. Here you'll see two tabs—Firewall General Rules and Firewall Program Rules. Firewall General Rules contains simple rules sets for the entire system, not for any particular program. The Firewall Program Rules screen lets you add your own rules for a program. All the programs using the Internet and the network will be displayed. Click on the drop-down next to the program and choose from the type of access you want to assign. If you choose Custom, a set of rules will be displayed from which you can choose. Click Add to add a new rule of your own. Follow the steps in the Wizard and the new rule will be created. You can create many rules for a single program in the same manner.

Exceptions In Detecting Viruses And Spyware

Exceptions can be made to the different kinds of viruses and spyware scans that Norton 360 does on your system. One such setting exists; you can find it by going to Tasks and Settings > Change Advanced Settings > Virus & Spyware Protection

Settings. Under the Automatic Protection Settings tab, there is an option for ignoring low-risk threats. This is set to Ignore by default, and you can set it to Automatically Remove if you want. Click the Threat Categories tab if you want to disable any kind of threat if you use different software to check for those.

SKYPE

For those who aren't aware yet, Skype is a dedicated software for making phone calls over the Internet to another PC for free, or to land lines (which requires you to pay a fee). Here's a look at a few of Skype's important features, and some recommendations on add-ons.

Checking Audio Quality

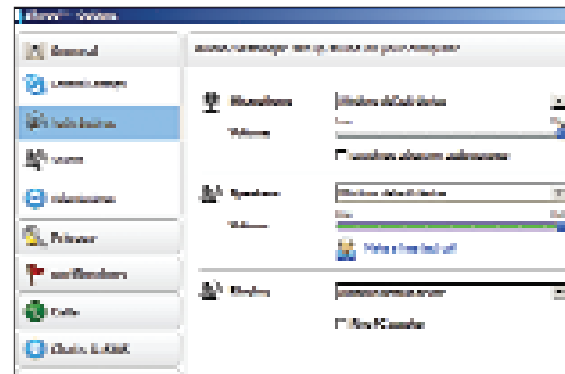
Ever wondered what you sound like to the person on the other end of a Skype call? Well, you need to make a call to echo123. First make all necessary audio setting changes. When you're ready to test it out, click on the address bar at the bottom of the Skype window and enter echo123. Press [Enter] and the call will be made. You will be asked to wait for a beep, after which you can speak. Your recorded message will then be played back. You can use this to tweak your audio recording settings.

Skype Live

A nifty new addition to Skype, Skype Live allows users to create public voice chat rooms. You can connect and talk to people on all kinds of topics. Such meetings can also be planned well in advance, and a listing of current conversations can be found on the Skype site or from the Live tab right in Skype.

Disable Sound Recording Normalisation

Skype has a feature that changes the volume at which your voice is recorded—depending on any sudden changes in



Disable Skype's control over the volume control if the feature doesn't work effectively

volume. This, in some cases, does not work effectively, and could result in low recording volume. The feature can be disabled by going to Tools > Options > General > Audio Settings. Uncheck the Let Skype Adjust my Audio Settings box. Here, as you'll see, you can also force a volume for the microphone and speakers.

Using Your PC's Internal Speaker As A Ringer

If you're using a headset for Skype, there's no way of knowing if you have a Skype call when you aren't wearing the headphones. An easy trick to use the internal PC speaker as a ringer. Go to Tools > Options > General > Audio Settings. Under the Ringing section, check the Ring PC Speaker box and click Save.

Skype On The Move

Like many other software, Skype can be used as a portable application. This means you can carry your (personal) Skype installation around with you on your portable music player or USB drive. First install Skype like you normally would on your hard drive. Then, from the installed location, which is usually C:\Program Files\Skype\Phone, copy Skype.exe to a folder on your USB drive. Create a folder called Data inside that folder. Start Notepad, type in Skype.exe /datapath="Data" /removable. Save the file as Skype.bat in the same folder as Skype.exe on the USB drive. Run it and enter the information like you normally would in a fresh installation. Check the box for Sign me in when Skype starts if you want to be able to double-click on the BAT file and log in automatically from any computer.

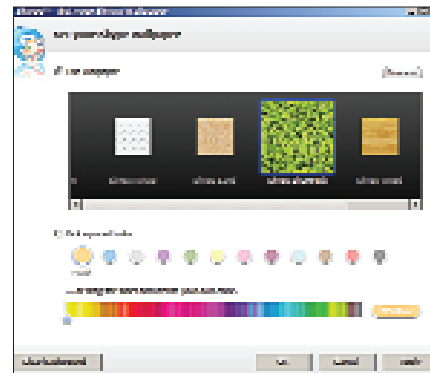
Contact Management

Contacts in Skype are just like in any other program. You might have a bunch of friends from school and some others who don't have everyone in their list. Skype allows you to forward these contacts to others. Select Tools > Send Contacts. Hold down [Ctrl] and click on the contacts you want to send. In the Send contacts to field, enter the contact to whom you want to send the list. Click Send.

The other interesting feature people usually miss out on is Groups. Go to View > Contact Groups > Enable Contact Groups. In the small Groups bar that appears above your contact list, click on the + icon to create

a new group. You can now drag and drop existing contacts from your list into any of these groups.

The Groups feature allows for flexibility. For example, you can right-click on a group, say all your colleagues, and click Start Group Chat. You can also send contacts and files (like we mentioned).



Give Skype a makeover!

Giving Skype Some Style

Skype hasn't changed a lot through the years. There are few settings that can improve on the default look. You can change the wallpaper (the background you see on your Skype window). Go to File > Personalize > Change Wallpaper. There are many preset wallpapers you can choose from. Other than that, you can set a custom wallpaper by clicking on Browse. You can choose a plain colour by clicking on the Pick a preset color radio button and then using the slider to select a colour.

Enabling Keyboard Shortcuts

Keyboard shortcuts for Skype are disabled by default; they can be enabled by selecting Tools > Options. Click on Advanced and then on Hotkeys. Check the box that says Enable keyboard shortcuts. You can change the shortcuts and enable and disable

them as well. This should allow you to be able to control Skype without having it in focus.

Installing Add-ons For Skype

You can enhance the functionality of Skype using add-ons. Go to Tools > Do More > Organize your Extras. Here, you can choose from a categorised list of add-ons. Some of these might require that you have Skype Credit. Here are some that are worth trying; click on the green Open link on an add-on to download and install it.

FFDSHOW

ffdshow is a filter that can be used to decode a huge number of formats, which means you don't have to go about installing all those codecs out there. Media Player Classic and ffdshow work as a great combo, and we will be using MPC to demonstrate some of ffdshow's features. ffdshow is constantly under development, and new releases are brought out very often. <http://ffdshow-tryout.sourceforge.net/> and <http://www.x264.nl/> are good sites to find updates for ffdshow. These updates bring in optimisations like better support for multi-core processors. If you're using the K-Lite codec pack that's on our CDs, you'll have ffdshow installed.

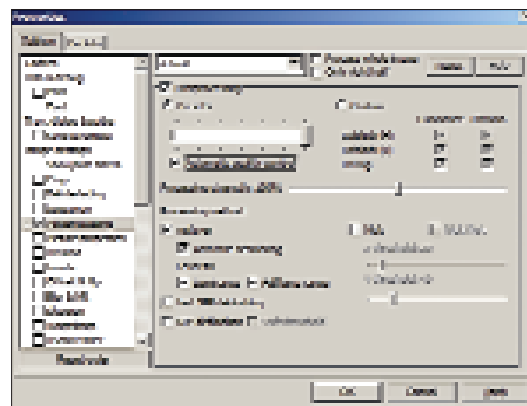
Disabling ffdshow For Codecs

It's a similar problem for ffdshow with some codecs (like with some applications). Certain codecs won't work as well with ffdshow as with some others. Like we'll soon mention, ffdshow has quality enhancements settings which can cause performance drops. To disable ffdshow for a particular codec, right-click on the playing video, select Filters >

ffdshow Video Decoder, then choose Codecs. Under the Decoder column, click the current decoder and choose a new decoder for the codec. Restart the player or the video to check if it works. If you get a blank output for that format, follow the same steps and set it to the previous decoder.

Enabling Deblocking And Other Quality Enhancements

One of ffdshow's unique features is the ability to enhance the quality of video. Most of the videos we watch are heavily



Deblocking can help reduce the pixelation you see on highly-compressed and low-resolution videos

compressed, and some of them have pixelation, which is especially noticeable on large LCD screens. You can reduce this by enabling deblocking. Right-click on the playing video and select Filters > ffdshow Video Decoder. Check the box that says Postprocessing. To get an idea of how much the quality enhancements are affecting the video, check the Only right half box. Check one of the processing modes available and set a processing strength using the slider. When you're pleased with the quality, uncheck the Only right half checkbox and click the Process whole image checkbox. Click OK to finish.

Some of these processing methods can be highly CPU-intensive, so you might want to select a different processing method such as fast SPP deblocking. Lowering the processing strength (by moving the Processing Strength slider) can also help.

Changing Contrast Ratios And Levels

The other type of enhancement can be done to the colour saturation and contrast levels of the video. The parameters can be different from video to video, but if, generally, you find abnormalities in the amount of colour, you can change it. Right-click on the Media Player Classic window with a video running, and click Filters >



mIRC

A quick guide to mIRC, the ultimate IRC client!

Rossi Fernandes

IRC (Internet Relay Chat) is a real-time communication system that was around before the first instant messenger in 1996. Even today, it is used by communities of all kinds—from software developers to gamers.

Development on mIRC is not as active as it used to be, but it's still the tool of choice for IRC users.

Automatically Connecting To Channels

In mIRC, every time you connect to a server, you need to join a channel to chat with people in that channel. It can be irritating to have to type the join command every time you want to join a channel. Select Favorites > Organize Favorites, and click Add. Enter the channel name with a hash sign, #linux, for example. Click Add to choose the network on which the channel exists, select the server on which the channel exists, and click OK. Check Join on connect and click OK. Next time you connect to the server, you will be automatically connected.

Another easy way to join a channel is to create a Windows shortcut to the channel. Right click on the Desktop (or any folder, for that matter) and select New > Shortcut. Enter the location as `irc://ServerName/ChannelName`, for example, `irc://irc.freenode.net/linux`. Double-click the icon and mIRC will join the channel and server.

Highlighting Your Nick

IRC users usually keep their clients in channels all day, idling. You obviously won't be looking at mIRC all the time, so you're going to miss out on the conversations going on (in the channel) that may have been directed at you. The highlight feature highlights your nick every time anyone calls it out. Select Tools > Address Book, then the Highlight tab. Check Enable highlight. In the field for choosing the words that trigger the highlight, enter \$me to have your nick highlighted. Choose the type of alerts you'd want—colours, sounds, alert messages—whatever. Click OK when done. In the same manner, you can add more keywords to be highlighted, and also use wildcards with the words.

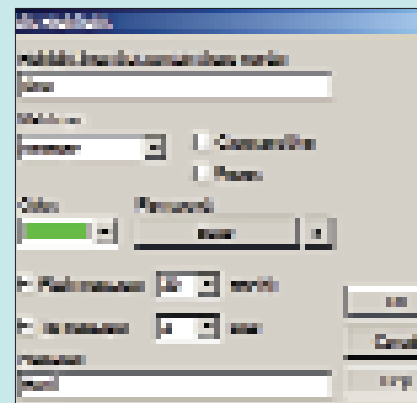
Setting Nick Colours

Chat rooms can have hundreds of people, with many of them chatting at

the same time, so it's difficult to make out if your friends are chatting—there are so many messages scrolling by so quickly! mIRC can highlight your friends' nicks. Select Tools > Address Book and then Nick Colors. Check Enable nick colors. Click Add, then enter the nick you want to highlight. Set a nick colour from the drop-down menu and click OK.

Customising Colours

When you're staring at channels, the default black text on a white background can be distracting. Recent versions of mIRC come with a few presets.

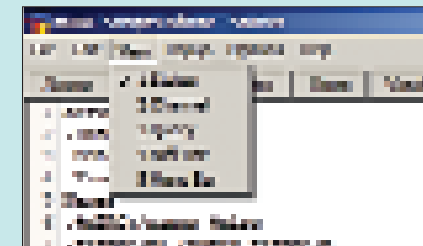


Have alerts come up when anyone mentions your name on IRC

Click on View > Colors. Choose from one of the schemes in the drop-down menu. You can customise the colours as well; to change fonts, select View > Font. Select the font and click the checkbox that says Set as default channel font (if you want to use this font for all channel windows).

Creating Your Own Menus

You'll notice that if you right-click in any window or on a nickname, there are menus that allow access to certain functions. You can add your own functions and menus. Go to Tools > Script Editor > Popups. Choose, from the View menu, for which window you want to create the pop-ups. Enter a name for a menu or function. To create a submenu, add a dot in front of the menu name, for example, .Menu1. To set a function for a menu item, enter the name of the menu followed by a colon and the command, for example, Join Linux:/join #linux. This will create a menu item called Join Linux. Clicking it will make you join the channel called linux. These



Make your own pop-up menus for your favourite actions

menus can be handy for tasks like quickly switching status, joining channels, and making actions. Remember, however, that there's a lot more that can be done with mIRC scripting!

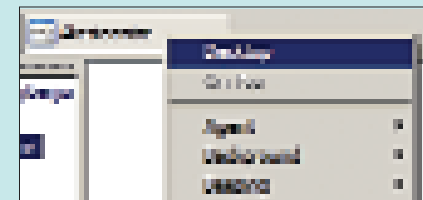
Connecting To Multiple Servers

All your favourite channels might not be on the same server, so you need to switch servers to join them. Fortunately, mIRC added support for multiple servers so users could stay connected on many servers at once. Go to File > Select Server. Select the network and double-click the server you want to connect to. Check the New server window box. Click Connect; a new window will appear, and the connection to the server will be made. There is another way to create a new server window while connecting to the server—if you know the exact address of the server. Enter `/server -m irc.ServerName.com`. For example, `/server -m irc.freenode.net` will create a new server window and connect to Freenode.

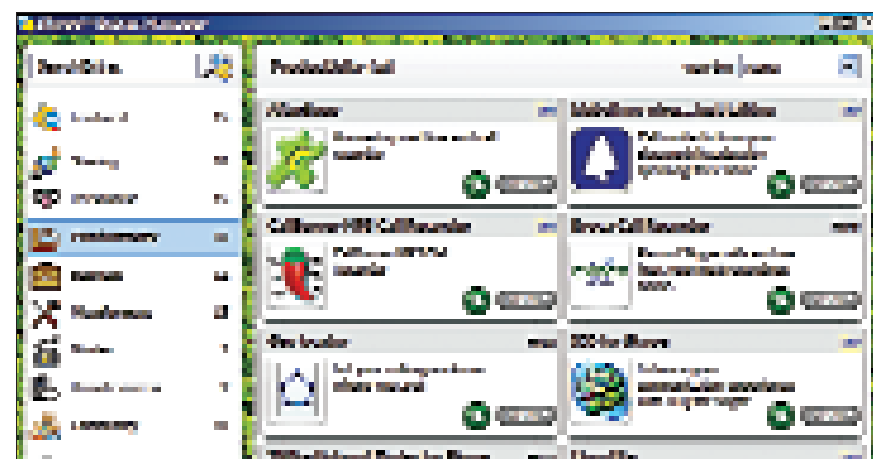
Undock A Channel Window

The mIRC interface houses smaller channel windows within it. When you want to chat on only one of the many channels you're on, you can undock the window from the mIRC interface and have it run in a full-screen window. Right-click on the tab you want to undock and click Desktop. To send the undocked window back to mIRC at any point, right-click on the window's menu and click Desktop again. ■

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Undock your favourite channel away from mIRC's flooded interface

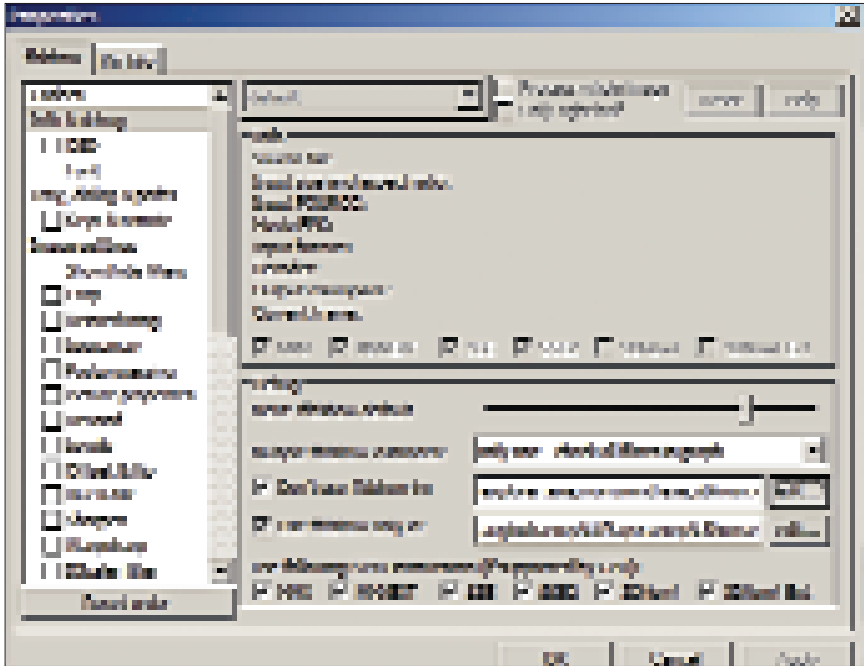


The Extras Manager has a showcase of add-ons for Skype

ffdshow Video Decoder. Choose and check the Picture properties box. Use the sliders for the Luminance gain (contrast) and Luminance offset (brightness) to change the brightness and contrast. Here, again, select the Only right half checkbox from the top of the window to get a preview of half the screen. Next, move the slider for the Saturation till you get a suitable result. When the settings are done, click OK.

Disabling ffdshow For Certain Applications

ffdshow can forcibly lock itself to certain applications and games. This can result in poor performance or other issues



ffdshow can have issues with some games—it can be disabled for them

while playing. One of the biggest problems was *The Elder Scrolls: Oblivion*; people had instability and performance issues. In such cases, it's a good idea to disable ffdshow. (*Oblivion* is one of several games that have now been added to the Ignore List of ffdshow in the releases that followed.)

Right-click on the playing video and select **Filters > ffdshow Video Decoder**. Click on **Info & debug** from the menu on the left. Here, check whether your application is already mentioned in the text bar next to **Don't use ffdshow in**. If it doesn't, click **Edit** and then **Add** to add your application. Browse to the location of the program and select the EXE of the application. Click **Open**. In the earlier menu, you can also use a similar procedure to mention which programs you want to use ffdshow with as well.

Saving And Loading Preset Settings

All the settings you've made can be saved through ffdshow for use at a later time, for example, on another computer. Start the ffdshow Video decoder configuration. Click on **Save to file...** to save the preset. Select a location and give a name to the preset. To load a preset, click on **Read from file...** To create a completely new preset from a saved preset, go to **New > From file** and select the file. To enable a preset, double-click on it.

ffdshow can also auto-load a preset depending on which format or codec

Go to the ffdshow Video Decoder window by and check **Subtitles**. Click on the **File** radio button and click on ... to browse and point to the subtitle file, which may be where you downloaded it to, or in the same folder if it came along with subtitles. Select the position where you want the subtitles to be displayed by using the **Horizontal** and **Vertical** sliders. To change the style of the fonts, click on the **Font** item from the left. Set a suitable font, shadow, colour, etc. and click **OK**.

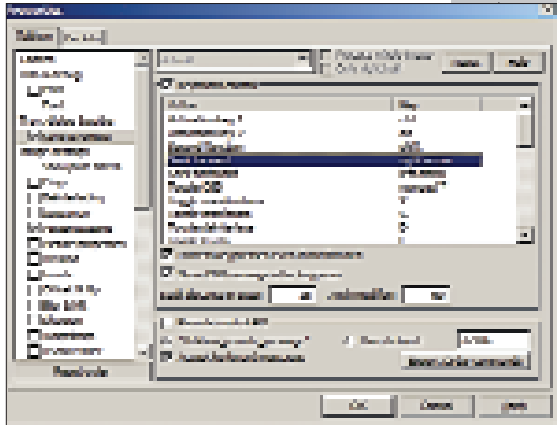
There are a few more advanced features. You can set a folder where all your subtitles are stored—just be sure to rename the subtitle filenames to match your video files. For example if your movie is called *MovieTest1.avi*, rename your subtitle file to *MovieTest1.srt*. Check the **Heuristic search** box; it can help in auto-detecting the subtitle file. If you don't mention a path, ffdshow will look for the subtitles in the same folder as the video file.

Capturing Images From A Video

ffdshow does a lot more than image enhancing—you can have screenshots taken at regular intervals during a movie. This can be enabled by right-clicking on the movie and clicking on **Filters > ffdshow Video Decoder**. Check the box for **Grab**. Select at what frequency you want the frames to be captured. Click on the button next to **Path** to select the location where the images should be dumped. Finally, set a suitable format and a quality setting. Click **OK** and start playing the movie to start the capturing. To disable the capturing, uncheck **Grab**.

Enabling And Using Keyboard Shortcuts For ffdshow Effects

Effects can be enabled on the fly while playing videos using ffdshow. The shortcuts are assigned, but not enabled by default. To enable the shortcuts, start



Shortcuts are useful in enabling effects without accessing the menus



NiBiTor

Tightening a few nuts in your NVIDIA graphics card...

Rossi Fernandes

NiBiTor, or the NVIDIA BIOS Editor, does just that: it edits the BIOS of NVIDIA cards. (Download it from www.softpedia.com/get/Tweak/Video-Tweak/NVIDIA-BIOS-Editor.shtml).

Note: Before we go through some of the important features of NiBiTor, we must warn you that modifying the BIOS is very risky; you could end up permanently damaging your card.

Acquiring And Saving The BIOS

Before editing the BIOS, you need to first get it from the card. To do this, you first select the card you want to flash by going to **Tools > Read BIOS > Select Device**. Choose your card and click **OK**. Next, go to **Tools > Read BIOS > Read into NiBiTor** to have the firmware loaded into NiBiTor. Clicking on **Read into file** will save the ROM as a file. Choose a location and click **Save**. You can load this ROM by selecting **File > Open ROM**. You can load previously saved or downloaded firmware in the same manner.

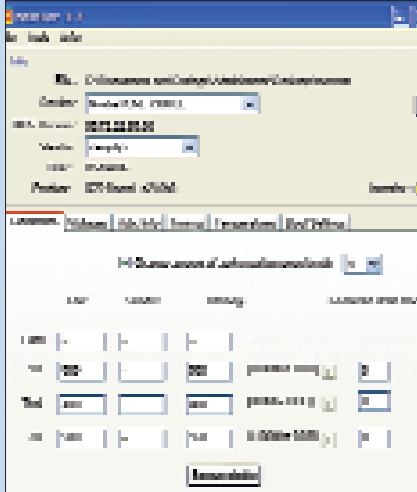
Once all changes are done, you will need to save the BIOS by selecting **File > Save BIOS**. Choose a location and click **Save**.

Overclocking Functions

The overclocking tab shows the speeds of the card at different presets that the driver tells the card to run at. There are three main settings—3D, 2D, and Throttle. The speeds you set will be used instead of the default speeds for those profiles. Be sure your card isn't already running hot. Any drastic change in speed could physically damage your card. Enter suitable speeds in the **Extra** fields. For this, you could use overclocking tools such as Rivatuner (www.guru3d.com/rivatuner/) and PowerStrip (www.entechtaiwan.com/util/ps.shtm). When you use them, you'll get a good idea of how far you can overclock your card and monitor its idle and load temperatures.

Setting Fan Throttling

The controls for temperature levels and fan speeds can be found under the **Temperature** tab. We've spoken about profiles as well as speeds for the core on those profiles. NiBiTor can also change the fan speeds depending on the profile. On the right of the window, you



You can assign speeds for different profiles

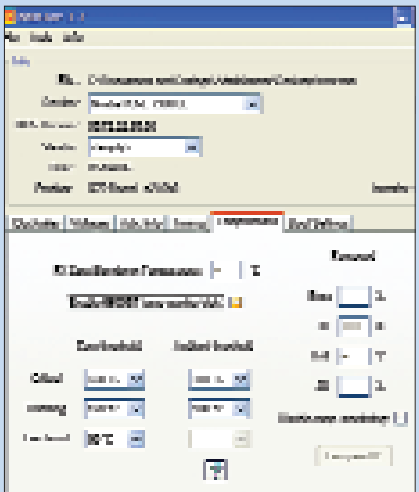
can find fan speeds for 3D, 2D, and Throttle. Enter the values as a percentage of the maximum speed of the fan. With this, your system can run quieter when there isn't heavy gaming going on. Again, you have to be careful not to run your fans too slowly, otherwise the GPU will begin to overheat. Depending on the type of card you use, you should see more options in the **Temperature** tab in NiBiTor.

Enabling / Disabling Temperature Monitoring

Temperature monitoring is a feature you'll find on most of the higher-end cards, but it might not always be enabled on entry-level cards. Modifying the BIOS could enable the feature. Click on the **Temperatures** tab and check the box that says **Enable 6600GT temp monitor trick**. On the other hand, if you don't want the temperature to be monitored (if you want any throttling feature to be disabled, for example), you can do it by checking **Disable temp monitoring**.

Setting Boot Display Settings

Every time you power up your machine, there are a few lines of text that appear at the top of the screen—information about your graphics card. NiBiTor lets you set your own custom text and colours—your name, for example, and other fun bits of text (you could make it look like you have an 8800 Ultra). With the BIOS loaded in NiBiTor, click on the **Boot Settings** tab. The OEM Signon tab has a preview of what the default text looks like. Adv. Signon has detailed information about



The temperature monitor can be enabled on some cards that have it disabled by default

the graphics card. Make any changes, or put your own text here. If you click on the drop-down for **Boot Display mode**, you can set a resolution, and you'll have coloured text instead of the standard grey using the drop-down menu for text colour. Click **Apply** when done.

NiBiTor only allows you to modify bits of the BIOS; it doesn't flash the card for you. Once you're done tweaking, you need to use a BIOS flashing tool such as NVFlash to flash the card. Put NVFlash on a floppy disk along with the BIOS file you edited. If you don't have a FDD, you can use a USB drive and get DOS running on it. A software called HP USB Boot Storage Format Tool can be used to format a USB drive with a bootable DOS image on it. (Get it at <http://files.extremeoverclocking.com/file.php?f=197>) Use a bootable DOS image to create a bootable DOS drive. Set the USB drive as the primary boot disk in your BIOS. Before writing the BIOS, make a backup on your drive of the existing one. This will come in handy if anything goes wrong during the flashing procedure.

Rescuing Cards

There's always a chance of ending up with undesirable results while playing with BIOSes; problems can also occur during the flashing procedure. Again, be extremely careful while modifying the card's BIOS, but if you do get it messed up, you'll have to use a backup PCI card to rescue your graphics card—restore the backup of the ROM that you took before flashing it. ■

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the ffdshow configuration window. Click on Keys & remote. Click the Keyboard control checkbox; you'll see all the effects and features that can be enabled through shortcuts. You can double-click on any one of the effects to change the shortcut. Hold down [Ctrl], [Alt], and [Shift] along with the key for the effect to toggle it. This feature can be especially useful in cases when you want your processing settings that you earlier set up to be enabled instantly.

If you want to see the status of all the effects currently in use, you can enable the OSD feature in ffdshow. Click the OSD checkbox. By default, some other information will be displayed. Disable these details by un-checking the boxes and clicking OK. Now, every time you enable an effect, a notification will appear on the screen for a short duration. Settings for the font used on the OSD can be changed from the Font menu.

ffdshow's Audio Decoder

ffdshow's Audio Decoder component can be used to play back all music formats. You will need to set your media players to use ffdshow. For example, in Winamp, go to Options > Plug-ins > Input. Double-click on Nullsoft DirectShow Decoder. Add the formats that you want ffdshow to use separated by a semicolon, for example: MP3;MP4 Click Close.

Now when you play a song in Winamp, you should see the ffdshow Audio Decoder icon in the System Tray. All the effects can be viewed and settings changed by first clicking on ffdshow Audio Decoder. The different plugins can be enabled by checking on the boxes next to the names. The rest of the functionality is similar to that in ffdshow Video Decoder.

Using Winamp Plugins

When you use ffdshow on other media players, it gives you the option to use Winamp's inbuilt plugins, like special equalisers. Start the ffdshow Audio Decoder. Click the Winamp 2 checkbox to enable this plugin. Locate the path for the Winamp folder using the button at the top. All the plugins will be listed in the drop-down menu at the bottom of the window. Choose the plugin you want to use. In this case, we'll use the Shibatch Super Equalizer. Click on Configure to set the options for the plugin. Click OK when done.

Using The Inbuilt Equaliser And Importing Winamp Presets

You can also use the inbuilt equaliser instead of Winamp's by clicking on the Equalizer checkbox. Make any changes to the equaliser and click OK. You can also load presets from the Winamp equaliser.

Assuming you saved the equaliser settings to an EQF file, click on the Load Winamp preset button. Browse to the location. Enter the File name as *.eqf and point to the file you saved. A small entry should appear next to the button. Click it to load the preset. Click OK when done.

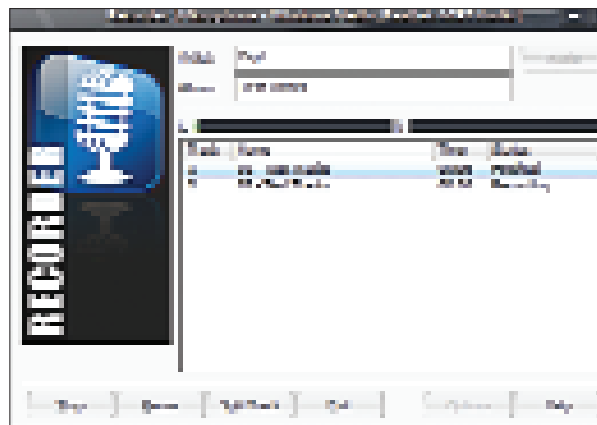
J RIVER MEDIA JUKEBOX 12

Some of us are used to Winamp, and some have stuck with Windows Media Player... but don't forget that there are alternatives. J River Media Jukebox 12 is one of the latest releases of the Media Jukebox application. It is completely free and fully-functional (unlike J River Media Center). The interface is similar to that of iTunes, and it has a lot of impressive features.

Recording Your Own Tracks

Media Jukebox 12 can record tracks through the line-in or microphone. The Sound Recorder that comes with Windows has a limitation of 60 seconds; Media Jukebox 12 doesn't.

To start the recorder, go to Tools > Advanced Tools > Record Sound.... Click on Options to configure



Media Jukebox 12 comes with an inbuilt recorder so you can record your own tracks

the settings. Click on Encoding to see the encoder settings. Click on the Encoder drop-down button and select a codec that you want to use. Click Encoder Settings to set the advanced options for that encoder—quality profiles and the bitrates. Click on Recorder to select the input settings. Select the device and the source—it could be a line-in or microphone or mixer. Set a higher recording volume if your microphone isn't loud enough. When done, click OK. Click Start to start to start recording. You can split a continuous recording into multiple tracks by clicking on Split Track at any time.

Downloading Cover Art For Albums

When we collect music, we generally sorting and rename it in an orderly manner. Almost all well-known media players have support for cover art, which is displayed alongside the song playing. Click on the Playing Now link on the left, and the album art for the song and album will be displayed at the top of the playlist.

Most media players don't download covert art for you; you are to depend on a standalone application for downloading album covers and then set it for each album. Media Jukebox 12 can download the album art for all songs and albums. To download album art, select all the songs and albums from the playlist, right click-on it, and click Cover Art > Get From Internet... Click OK and the images will be downloaded. Depending on the number of songs, it can take a while. You can also acquire the cover art using a scanner—click on Get From Scanner... to do that. If you find a good album cover while you're browsing the Internet, you can copy it to your clipboard. Right-click on an image in your browser and click Copy. Right click on a song and click on Cover Art > Paste from Clipboard. You can also use an image URL.

Album View

Assuming you have all your music sorted into albums and all the album art downloaded, you can use the Album View, which displays a very attractive presentation of all your music. Click on Audio from the left menu, then click on the View menu and then on View Settings > Album Thumbnails. You can double-click on any of the albums to start playing all the tracks

on it. You can also choose how many album covers should be displayed on a page. Use the slider at the top right of the window to alter the number of covers displayed.

Switching To Full-screen View

Media Jukebox 12 has a dedicated full-screen mode, which can be useful as a dedicated media playback system. The full screen can be used for navigation mode, and the cover art we just talked about can be displayed as a full-screen image. You can double-click on the visualisation being displayed at the bottom left of the screen to switch to full-screen mode.

The arrow keys can be used to control the playback and visualisations. Use the up and down keys to change the type of control—playback, visualisation, volume, etc. Use the left and right keys to change the value.

A Game In J River Media Jukebox!

One of the visualisations that come with Media Jukebox 12 has a game in it—Pong! By default, the visualisation has both players as AI, but you can control the left paddle by pressing [W] to move it up and [S] to move it down.

Downloading Podcasts

J River Media Jukebox can manage and download podcasts and then play them whenever you want. Click on Podcasts to access the podcasts feature. If you know the address of the RSS feed for a podcast, click on Add New Feed. Enter a name and the exact URL for the RSS feed. Click OK. You can also use Google search to browse and find podcasts feeds right through Media Jukebox.

Once you have the podcasts added to your list, you'll find them under the Podcast link to the left. You can choose to have all the podcasts automatically downloaded, or you can manually download the podcasts you want. To download a podcast, click on the Download link in the Episode Status column in the podcast of your choice. To have podcasts automatically downloaded, click the Edit This Feed button at the top. Use the Download drop-down menu and select All Episodes to download all the episodes.

Using Smart Playlists

The Smart Playlist is a unique, and an equally useful feature in Media Jukebox. It allows you to filter out music very accurately. So for example, you can have a list of all the songs in your library that are 192 kbps and from 2007. To add a new smart playlist, right-click on Playlists and click Add Smartlist. Choose the parameter by clicking on the Rules drop-down menu, and enter a suitable value. In this case, choose Bitrate and enter the value as 192. Multiple rules can be added in the same manner by clicking the Add New Rule button, so we add another rule—Year, and the value as 2007. There are also lists of preset rules that can be added by clicking on Add Stock Rule button.

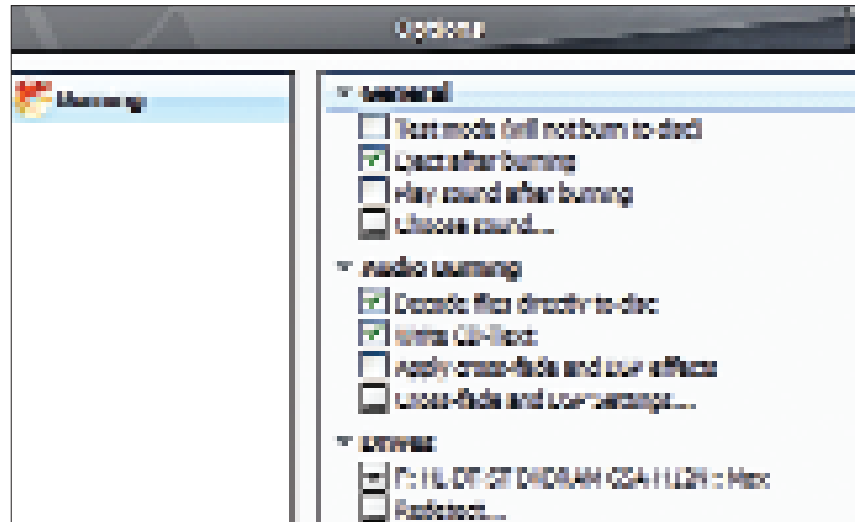
Auto-renaming Tracks

Our music collections are often not titled properly, and the files have random names. You can have MP3s renamed using the ID3 tag data in the files or vice versa. To do this, first select

the files you want to rename. Right-click on the selected files and click Library Tools > Fill Properties from Filename to have the tags filled with information from the filenames, or click Rename Files from Properties to use the ID3 tag information to rename the files. From the drop-down menus, you can choose one of the fixed presets that suits the way your files have been named. The same can be done while converting title details to filenames.

Creating Audio CDs

Media Jukebox can create Audio CDs as well as standard MP3 CD or DVDs with its inbuilt CD / DVD burning feature. Click on the Action tab on the left and choose Burn Disc. Choose whether you want to burn a Data CD or an Audio CD. If you use the Data CD or DVD, you can even use it to burn data files like you would in any



The Audio CD burning feature can be used to burn data CDs and DVDs as well

CD / DVD burning application. Just beware that Media Jukebox doesn't include subdirectories when you choose the files and folders to be burned. Drag and drop the files you want to burn on the disc. Click on Burn to burn the disc. Before you do that, you can customise and change the settings for the writer. Click on Details to see the sequence of songs on the CD. You can drag and drop them in the order you want them to be in.

If you click on Options > Burn Settings, you can choose the speed that the disc should be burnt at. Click on the drop-down next to the drive and choose the speed.

Creating CD Labels

J River Media Jukebox 12 comes as a 12 MB installer, and it includes everything—a CD / DVD writing feature and even a CD Label Creator. The CD Label Creator feature is great for burning Audio CDs. The software can

create a cover for your discs and for the labels discs cover as well.

First select the tracks that you plan on putting on the CD by holding down the [Ctrl] and [Shift] keys. Then, go to Tools > Advanced Tools > Disc Labeler. At any time, you can get a preview of the finished print by clicking on the Preview button. Themes for the print can be selected by clicking on the Themes dropdown menu. The CD Info option will show you the list of songs and the name of the artist and CD titles which you can change. The last three menus on the left have customisation options for the front, back cover, and the CD label. In each one of them, you have the option to use the cover art as the background for the label and also a listing of the tracks on the CD. You can also click on Go To Label Editor to be able to modify every detail of the design and label.

Using iPod Support

Music Jukebox 12 can also sync with most iPods. Connect your iPod like you normally would and start Media Jukebox 12; your iPod should be detected by the program. If it hasn't detected it, go to Tools > Options > Handheld. Click on Redetect all devices to detect the devices. Now, click on Drives and Devices, and you should see your iPod in the list—and all the songs and media on it. You can now drag and drop songs into your iPod. iPod users can now acquire album art for their songs and then transfer it to their iPods and have cover art displayed on them.

This same feature can be used for non-iPod music players. You can set the folder or location on the player's drive under Tools > Options > Handheld. Click Add Device and give it a name. Next, click on Browse and choose the location of the media player. Click OK. ■



A One-Step Fix

I use Windows XP. Whenever I try to install a software, I get an MSI (Microsoft Installer) error.

Nawajeevan Panthee

Download the latest MSI installer redistributable and you will not get any further errors while installing an MSI package. You can find the MSI Installer 3.0 redistributable for Windows XP at www.microsoft.com/downloads/details.aspx?familyid=5FBC5470-B259-4733-A914-A956122E08E8 (<http://tinyurl.com/2jsmzd>).

Just A Download Away

My SanDisk Cruzer 1 GB with U3 used to work well, but the U3 application launcher now gives an error. Please help.

Ayush Sobti

Download and install the SanDisk U3 LaunchPad Installer from <http://u3.sandisk.com/download/apps/LPInstaller.exe>. This is a small file—less than an MB. Make sure your Flash drive is plugged in before you launch the program. Follow the on-screen instructions, and after a few seconds, your U3 disk will be ready with the latest U3 application. Note that this installer is not compatible with Vista, so use it only if you have XP or Windows 2000 SP4—we’re assuming this is the case. Also, at no point of time during the installation should you try to remove the USB drive; you could permanently damage it.

Greyed Out!

The Standby button, which used to be available as a shutdown option on my computer, is now disabled. What could have caused this?

Ram Ramesh

The disappearance of the Standby button means XP is not able to properly use the power management functions of your motherboard. This could have been caused by vari-

ous things—for example, you might have changed the power management settings in the BIOS after XP was installed. If that is the case, revert to the original settings, or try loading the defaults. Another common reason is the installation of a device that does not support power management (or supports it partially); this could be a PCI device such as a LAN card or a TV-Tuner card. Try to upgrade the drivers of the device, and also run Windows Update. If that doesn’t help, you might need to remove the device from the PC to restore Standby functionality.

Notnet

I have a Seagate 120 GB hard disk with Windows XP SP2. My PC has recently started showing a .NET Framework error message—as in the screenshot.

Indrajit Bose

Make sure you have the .NET Framework installed: check that the C:\WINDOWS\Microsoft.NET\Framework exists and that it is not empty. If the folder doesn’t exist (or if it’s empty), then install the .NET Framework. Otherwise, open the Registry Editor, and navigate to HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\.NETFramework. In the right pane, double-click the (or create a) String entry named InstallRoot. Set its value to C:\WINDOWS\Microsoft.NET\Framework\. Exit the Registry Editor and restart Windows.



The .NET Framework initialisation error

Errant Programs

My Windows XP computer takes a long time to shut down. What could be the problem?

Anuj Shreshta

There could be many reasons, though the most common one is a program that runs in the background and refuses to close. You’d know best which program this is: try and recall if you recently installed a program after which the problem started, and see if you can afford to uninstall it. Also try to speed up your system after referring *30 Minutes Expert: Keeping Your PC Prim And Proper* in our October 2007 issue.

Resolving Resolution

When I try to open a file in Adobe Illustrator 9, I get an error message that reads something like “Can’t open the illustration. The illustration contains an illegal operator. Offending Operator: ‘Ar’ Context: 72”. When I click OK, the file opens, but there are missing items.

Prakash Sharma

This problem can be solved by editing the PostScript code of the document and removing the incorrect output resolution information. Make a backup of the original file before proceeding. Write down the portion of the error message that follows the word Context:, in your case, 72. Open the Illustrator document in a text editor

Get Help Now!

E-mail us your computing problems along with your contact details and complete system configuration to sos@jasubhai.com, and we might answer them here! Since we get many more mails per day than we can handle, it may take some time for your query to be answered. Rest assured, we are listening!

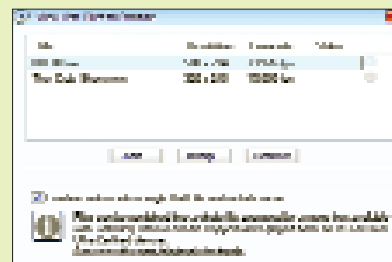
Chop And Change

I have video files in the MPG format and want to convert them to an AVI. Is there a way to get them onto one CD in the AVI format?

Bhuvnesh Goel

You can use DivX Converter to get your job done. Download and install the DivX Bundle from www.divx.com. Go to the DivX program group and launch DivX Converter. A small Converter window will open; click on View List to open the list window. Click Add to browse for and add your MPG files one by one. When you add more than one file, you will see that the greyed box next to Combine videos into a single DivX file and include menu will become available; check it.

Click on the icon with an exclamation mark just below



Use DivX Converter to combine two AVI files

Resolution and specify an appropriate resolution (specify either a resolution matching one of the files, or a standard video resolution). If necessary, click on the Lock icon so that you’ll be able to specify a custom aspect ratio. Finally, check the box next to Limit Total Average Bitrate to—this will let you specify the video and audio bitrates individually.

such as Notepad. Locate the line containing 72 Ar. Change the number in that line to reflect the desired output resolution, but keep in mind that this number should be greater than 100 and less than 9600. (For example, you can set it to 800 Ar.) Repeat this procedure for each instance of 72 Ar. Save the file in text-only format and close the text editor. You’ll now be able to open it in Illustrator.

You’ll, Umm, Need To Pay...

When I try to create a movie DVD using my DVD-Writer with Nero, I get a message like “install multi-channel plug-in.”

Yogendra Sharma

The version of Nero usually bundled with DVD-Writers does not contain the audio plug-in that allows you to copy multi-channel DVDs. You will need to purchase it online from www.nero.com. It is available for ₹ 9.99 (Rs 1,150).

The Version Matters

I get the error message “direct x 9.0c not found” when I try to run *Spiderman 3*. Other games run fine. Please help!

Sahil Naik

You must install the latest version of DirectX 9.0c, which is the November 2007 edition (it’s on our CDs and DVDs starting December 2007).

Do-it-all Discs

How can I make a multi-boot CD with Windows XP Professional and Media Center Edition?

Alok Kumar

You can use a tool such as EasyBoot from www.ezbsystems.com to create multi-boot CDs of different Windows versions. Remember that it is illegal to do so unless both versions of Windows are legal. Here are the steps to add Windows XP. Create a folder named XPPR under C:\easyboot\disk1. Copy the files win51 and win51p from the root directory of the XP CD to C:\easyboot\disk1. Copy the i386 folder to C:\easyboot\disk1\XPPR. Copy wxp.bat from C:\easyboot\resource to C:\easyboot\disk1\XPPR and run it. Copy w2ksect.bin from C:\easyboot\disk1\ezboot to a new file named xppr.bin.

Start EasyBoot. Select Tools >Replace Text, browse to C:\easyboot\disk1\ezboot\xprr.bin, and specify i386 as Text to Replace, XPPR as Replace to, and click Replace; one occurrence should be replaced. Repeat this for C:\easyboot\disk1\xprr\setupldr.bin, replacing i386 by xprr; four occurrences should be replaced. Open c:\easyboot\disk1\xprr\txtsetup.sif in Notepad, search for SetupSourcePath, and change SetupSourcePath = “\” to SetupSourcePath = “\XPPR”. Set the menu item’s command as run xprr.bin. Save the file.

Repeat these steps to add more version of Windows, but make sure that you use a different name for the folder XPPR and the file xprr.bin. After you’ve prepared the contents, save the compilation by clicking Save. Click Make ISO, select the name and location of the place to save the ISO image file to, and click Make.

Gone, Yes, Gone!

I had encrypted some files on my E drive. I formatted and installed a fresh copy of Windows XP because of a virus, and I am now not able to open these files. Is there a way to recover them?

Karthikeyan Kshatriya

When you encrypt files in Windows XP, a unique encryption key is generated and used, and this makes it virtually impossible to decrypt and view those files from another installation of XP or any other OS. Unfortunately, therefore, there is no way to recover files encrypted in an unbootable installation of XP.

No Access For You!

I use BSNL NetOne to connect to the Internet. For the past few days, I have not been able to connect; I get an error message that says “Error 775: The call was blocked by the remote computer.”

Vipul Paliwal

Though the error says the call was “blocked” by the remote computer, nothing is really wrong. The error only occurs if the username and / or password are incorrect, or if your account has

Get the six-year-old XP up to Vista speed with a few nifty additions!

Rossi Fernandes

It's quite probable that you don't want to move to Vista right now, and that you still have an urge to try some of its features. The whole Vista thing being called the biggest tech failure of 2007 isn't encouraging, either. However, there is hope in the form of standalone add-on programs for XP that can give you close to the entire Vista experience.

Note: A lot of these programs are in development phase, and some of them might modify system files—so proceed with caution.

STEP 1

Using A Sidebar

Sidebar may have existed since the early days when details of Vista were being leaked onto the Web.

Sidebar are a great way to have instant access to information such as weather, RSS feeds, and mail all the same time on your Desktop. If you want a sidebar today, you have several good ones to choose from. The most famous has to be Google Desktop (<http://desktop.google.com>). You can download it or free. Once installed, right-click on the icon in the system tray and make sure you set it as a sidebar. Click the + sign at the top of the sidebar to add gadgets to it. You can shift them all about the sidebar by dragging and dropping.

Google Desktop comes with a great sidebar

Another software that can be used to install a sidebar is Desktop Sidebar (www.desktopsidebar.com). Desktop sidebar, too, is powerful, but not as attractive or Vista-like looking as Google Desktop. You can always download skins for it, though.

STEP 2

File Indexing And Searching

Google Desktop is more than just a sidebar—it is also an indexing tool. These can scan your drive for documents and other files, and locating files becomes much faster than if you were to use the default Windows search. To look for files in Google, press [Ctrl] twice, and a search window will

appear. The text field in the sidebar can also be used.

Another well-known indexing tool is Copernic Desktop Search 2 (www.copernic.com). Like the Google Desktop indexing feature, you can use Copernic Desktop Search to look for files and e-mails. Because the initial indexing is a slow process, it's a good idea to force the indexing process in Copernic Desktop Search whenever you aren't going to be using the computer. Go to Tools > Options > Indexing & Performance. Uncheck two boxes: Suspend indexing while I use my computer, and Suspend indexing while computer resources are highly used.

STEP 3

Taskbar Visual Tips

Visual tooltips are small visual previews of windows; they appear when you move your mouse pointer over an item in the taskbar. You can get Visual Tooltip from www.chrisnsoft.com/visual-tooltip/. Unzip the file and run VisualToolTip.exe. Now move the mouse pointer over the taskbar and you'll be able to see previews of programs. You can modify the size of each preview by right-clicking on the system tray icon and then selecting Options. Click the Thumbnail tab. Any other changes to the look of the tooltips can be done by clicking on the Display tab.

STEP 4

Getting The Vista Look

XP themes have been around for quite a while, and designers have been working on themes that look a lot like Vista. For custom themes to work on Windows XP, you first need to patch the UXTHEME.DLL file. If you'd like, you can download an automated patcher from www.softpedia.com/progDownload/UXTheme-MultiPatcher-Download-2369.html. Run the patcher and Cancel any warnings about Windows files being replaced. Reboot, and you'll be able to use custom themes. Copy the theme files you download into C:\Windows\Resources\Themes. Double-click the .theme file to preview the theme. In the Display properties window, click on Apply to apply the theme. Sites like www.themexp.org and www.deviantart.com have loads of themes—and quite a few that mimic Vista's default theme.

STEP 5

The Vista Start Menu

This is a little different from the one in XP: it has a search bar. Vista Start Menu Emulator (<http://vseproject.extra.hu>) is a little application that brings Vista's Start Menu to XP. If you have a good Vista theme installed, this Start Menu replacement will work as a great combination.

A very good alternative to Vista Start Menu Emulator is called ViStart (<http://lee-soft.com>).

STEP 6

Flipping Windows!

Top Desk (www.otakusoftware.com/topdesk/) is a neat little utility that allows you to get the effect Vista gives you when you multitask between applications. After you install Top Desk, pressing [Windows Key] + [Tab] will show you a visual list of all running applications. You can keep pressing the key combo (or use the arrow keys) to switch between applications.



The flip effect from Vista on Windows is possible with Top Desk

STEP 7

Performance Boost

ReadyBoost is one of Vista's performance boosting features. ReadyBoost works by using a USB Flash drive as additional memory. For ReadyBoost, you can find a commercial software called eBoostr (www.eboostr.com). Once you have the program installed, reboot the computer. Start the program, and you can now add a Flash drive that you want it to use. Enter the size of the cache file you want to use.

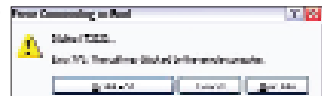
STEP 7

Windows Media Player 11

Every major Windows release is highlighted by the release of a new Windows Media Player. Vista came out with Windows Media Player 11, but Microsoft also has it out for XP. It is available for free download from www.microsoft.com/windows/windowsmedia/player/11/default.aspx ■

rossi_fernandes@thinkdigit.com

expired. Of course, you could even be dialling the wrong number, but from the screenshot you've sent in, it appears to be correct. So if you're sure about the validity of your details and your account, contact the BSNL Helpdesk.



The BSNL NetOne connection error message

Here's Your Link!

My computer is infected by the Brontok virus; it resides in the My Document and My Pictures folders as an HTML file. I've tried deleting it many times, but it reappears. I've tried to download the removal tool from Softpedia.com, but it does not get downloaded. Please help.

Tushar Dharashive

Download the Brontok virus removal tool from <http://dn1-pr1.kaspersky-labs.com/utills/klwk/klwk.zip>. This is a small (70 KB) file and can be easily downloaded. Extract the contents to a folder and run the executable file. Reboot the computer after the removal process is done, and install a good anti-virus software to prevent future infections.

The Way It's Read

Is there a way to make numbers show up with the thousand separator (by default) in Word 2007?

Santosh Bhide

Choose the Insert tab on the Ribbon and select Quick Parts > Field. Select the item =Formula in the list and click Formula. Type your number in the Formula field preceded by the equals symbol. Enter #,##0.00 in the Number format field and click OK. Done!

To make changes to the value, click on the number and press [Shift] + [F9]. This will show the fields so you can change the value. Press [Shift] + [F9] to retain the format—you'll see what we mean when you try it.

A Patch To Match

I want to play *Quake 3 Arena* online, but I'm not able to connect to some servers even though they are listed in the multiplayer option of the game.

Raghav Chari

Verify that you have installed the latest patch for *Quake 3 Arena*; it is 1.32c, available for download from www.idsoftware.com. If, when you click on the server in the list, you see the default *Quake 3* logo, then you do not have the map or mod the server is using, so you won't be able to connect to it. Go to Game Options in the game and set Automatic Downloading to On (this allows you to download the required map automatically). Some game servers require PunkBuster to be installed and enabled, and this is mentioned after the server name in the list. The latest *Quake 3* patch comes with this anti-cheat software, but in case you opted to not install it, you need to do so by downloading it from www.evenbalance.com/index.php?page=pbssetup.php. (Download the version for your OS.)

You've Got To Tell It!

I recently purchased an NVIDIA 7600GS PCI-Express graphics card, but it doesn't display anything on my ATI RS480 motherboard. The graphics card works when it's installed in my friend's computer. My computer can still boot using the onboard graphics, so my motherboard is not faulty.

Pankaj Thorat

It looks like your motherboard is still using the onboard graphics to boot. You need to set the PCI-Express graphics card to initialise first. Enter the BIOS, look under Integrated Peripherals > Init Display First, and set it to PCIEx.

The Indian Connection

I use Yahoo! Messenger to voice-chat with my friends. I recently purchased a webcam. When I try to chat with the webcam on, the audio quality becomes very poor, and it is often inaudible.

Rajesh D

You need a broadband connection to be able to video-chat; your Internet bandwidth is probably not enough to support video chat—try and see if you can get a faster connection! If you can't, you could reduce the size of the video stream by reducing the resolution of the webcam under the webcam's advanced properties. Also, do not download while chatting; this eats up bandwidth.

Out With The Old

I tried to install Office 2007 from the *Digit* DVD, and it displays an error: "An error occurred during installation and setup was unable to complete." When I clicked on PowerPoint setup, it shows "Error 1731." I have Media Center Edition.

Kiran Kumar Sripati

This error occurs when you try to update, reinstall, or install an additional feature of a Windows Installer setup-based program from a different version of the source setup. In your case, you may have an earlier version of Microsoft Office installed. You need to uninstall that version before trying to install the newer version. You may need the original installation source files of the older version of Office to be able to uninstall it.

Sound Off!

When I try to play a song on my computer, I get this message: "Cannot play back the audio stream: no audio hardware is available, or the hardware is not responding". I use Windows XP.

Sarang Phadnis

This error occurs when the computer does not have an external sound card, when your sound card is not working properly, or when the sound hardware acceleration is set too high. Install the latest drivers for your sound card. Open Sound and Audio Devices in the Control Panel. Click on the Audio tab, then on the Advanced button under Sound Playback. Click on the Performance tab and move the Hardware Acceleration slider a notch closer to None. Click OK, and restart your computer.

Shh... The Movie's Starting

New year, new home... Agent 001 goes out shopping for an HDTV

A good friend is about to tie the knot next month, and we'd been window shopping to check out stuff for his new place—a generous gift from his investment broker dad. During our sojourn we chanced across a showroom with few flat screen panels on display. Like any good movie junkie, he was hooked—he wanted a flat screen and he wanted something *big*!

Flat panels are of two types—LCD and Plasma panels. Let's bust a myth here: Plasma screens are actually better than LCD displays in general—they have better contrast ratios (1500:1 and better), and better, more natural colour tones. A plasma display will also display better blacks, and greater varieties of grey—all because of the improved contrast ratio. However, LCDs aren't far behind, and the latest S-PVA panels sport improved contrast ratios from earlier MVA panels, while the cheaper TN panels play with the masses interested in something cheaper. I also cautioned my friend not to look at the “dynamic contrast ratio” figure. In fact most panels' contrast ratio won't exceed 1500:1, though many advertised as 3000:1 will have an actual contrast ratio of around 800:1. An actual contrast ratio of 1000:1 ought to be sufficient for most users.

Also remember that LCDs get prohibitively costly after a certain size (42 inches or so), and this steep price hike hasn't got anything to do with better performance—just a

costlier manufacturing process. If you're looking for a big screen—say 50 inches or so, then consider only a plasma panel—much better value for money. However, plasma screens aren't made in sizes smaller than 50 inches, so if you're looking for something around the 32-inch mark, then you're stuck with nothing but LCD. Also remember that large screens look terrible at close range; 32 inches is plenty for a viewing distance of 12-18 feet, and 40 is better if you can put 20 or more feet between you and the TV.

A Samsung showroom had a couple of LCDs on display—one each from their costlier Bordeaux and cheaper Mosel models. The Bordeaux has a sleeker look and a higher contrast panel and the 26-inch is priced at Rs 32,000, while the Mosel is priced at Rs 2,000 less. The 32-inch Bordeaux is a brilliant deal at Rs 42,000. This showroom had EMI facilities available, and my friend was all smiles. A 42-inch Samsung plasma screen was also available for Rs 55,000—a sweet deal if you want a plasma screen. We came across the same two LCDs at a large mall—and the salesman assured us he'd match the best price we got from anywhere after we scoffed at the higher quoted prices. The Sony Bravia 26-inch LCD was priced at Rs 33,000, while the 32-inch equivalent was Rs 8,500 more. The Bravia uses the same panel as the Bordeaux (both S-PVA panels) but has a better display processor. We also saw a 40-

inch Bravia from Sony's V “value” series—for Rs 89,990.

It seems the new LG Pearl Black is the new “in” thing. These TVs are as gorgeous as Samsung's shapely Bordeaux, and decked in the same Pearl Black colour (the Bordeaux can be had in white too), and the swivel portion of the base has a tasty dark wine-red hue which attracts looks even when switched off. These panels feature 10000:1 contrast ratios (dynamic, of course) and a brightness of 600 cd/m²—quite good.


A 50-inch Hitachi plasma screen was also on display for Rs 55,000, although the salesman pointed out that service might be an issue. It seems brands like Sony, Samsung and LG garner votes mainly due to hassle-free service. There was an Akai 32-inch LCD at Rs 38,000—the cheapest 32-inch we came across—but one look at the picture quality told us we'd be better off spending a few thousand more.

After deliberation, a couple of (soft) drinks and a pizza, my friend had built up enough fortitude to fork out a good bit of cash. We finally decided on the Samsung plasma (PS-42C91H) for Rs 55,000; a half hour of gentle persuasion had us at Rs 53,000. After paying half the amount in cash and swiping his credit card for the rest, we got a deal of Rs 52,500, and he drove home with his purchase as happy as a child at an ice-cream stand. ■


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Channel Muddle

 My PC configuration is: Intel Core 2 Duo E6600, Intel DG965WH motherboard, 1 GB Transcend RAM at 667 MHz, 250 GB HDD, 19-inch LG TFT, Sony DVD-Writer. I want to upgrade the RAM to 2 GB. Should I go for a 1 GB Transcend at 667 MHz in dual-channel, or can I use 1 GB at 800 MHz also in dual-channel? Which will be faster? Can I use 3 GB? Will it show any improvement? What brands do you recommend?


Aniket Gaikwad

 You seem confused about the concept of dual-channel memory. Firstly, you need two sticks of memory to even get dual-channel mode enabled, so a single 1 GB DDR2 800 MHz module won't work—but two 512 MB modules will, if the memory speeds are the same. I recommend 2 GB over 1 GB anytime, simply because DDR2 is ultra-cheap. 3 GB would be better under Windows Vista, although under Windows XP, I'd expect the difference under demanding applications would be no more than 10 per cent. 2 GB of DDR2 667 MHz memory will cost you around Rs 2,400, while 800 MHz memory will cost an extra Rs 600. Transcend is a good brand—stick with it.


The Question That Won't Go Away

 I bought an XFX GeForce 8800GT, and my system configuration is Core 2 Duo E6300 at 1.86GHz, Intel original motherboard DG965RY, Transcend 1GB RAM at 533 MHz, Seagate Barracuda 80 GB, LG DVD-Writer. I'm using a 400-watt PSU from Odyssey; is it sufficient or should I upgrade? Do recommend a PSU taking into consideration that I will add a 320 GB HDD.


Vicky Fernandes

 That power supply is a serious hazard in such a high-end PC. I recommend a 500-watt PSU from VIP (Rs 2,300 or thereabouts), or even a 550 W CoolerMaster Extreme Power, which should cost you around 3,000 bucks. Don't compromise on system stability or even component life with a power supply that can't handle all that processing juice.

Shades Of Grey...

 I want to buy a digital camera, and I'm looking at the Canon PowerShot A650 IS. I checked with some big stores in Mumbai, but they don't have that model; the PowerShot A570 IS is available. Should I go for it? Is buying an A650 IS from the grey market at Rs 14,500 a good option?

Tejas Unnikrishnan


 To be honest, most people buying cameras these days prefer the grey market where the additional cost of a bill with the tax incurred is saved. Add to that the fact that there are hardly any fakes for cameras, and you are reasonably safe. The PowerShot A650 IS will be a better option than the A570IS, especially if your budget is as large as Rs 14,500.

Moving Pictures On A Budget


 I would like to buy a digital camcorder with either the DVD or mini DV format. My budget

is Rs 40,000. Please suggest some good models with exact prices.


Sumita Dey

 Samsung's DC230, at Rs 24,995, should be a good camcorder for you: good build quality and quite ergonomic. We also liked the quality of the image after zooming—all in all, suitable for an amateur on a shoestring budget. I'd recommend the Panasonic SDR-H20 (HDD-based) since its Image Stabilisation is excellent and performance exemplary, but you have specified a DVD-format-model only. If you can spend around Rs 50,000, then the Canon DC51 is excellent.


One Fits In Your Pocket...

 I want a console for casual gaming. What is the difference between the PSP and PS2 with regards to gaming performance? Would it be worthwhile to go for the PSP due to its other features on offer?


Raghav Kanwal

 First of all, the PSP is a handheld multimedia device, not really a console like the PS2, PS3, or Xbox. If you want to game on the go and even listen to music or play movies, the PSP is very suitable—it slips into your pocket, and it has a good screen. The PS2 will require connectivity to a TV set, and is a better gaming solution than the PSP, except it isn't portable. The Xbox 360 is a good alternative to the PS2, although it'll cost around Rs 18,000, while the PS2, having been around for a while, will cost in the region of Rs 7,000. The PSP will cost around Rs 7,500.

I Need Two

 My current configuration is the following: Intel Pentium III 866 MHz processor, 256 MB SDRAM, 40 GB Seagate HDD PATA, 80 GB Samsung HDD PATA, and Windows XP Pro SP2. I would like to upgrade, with a budget of 15K. Here are my specs: Intel Core 2 Duo E4400 2 GHz (Rs 5,500); Gigabyte GA-G33M-S2H (Rs 5,950); 1 GB DDR2 667 MHz RAM Transcend / Corsair / Kingston (Rs 1,450–1,700). The problem is that I have two PATA drives, and the motherboard I mentioned has only 1 PATA port. Also, I mostly play only the FIFA series of games. So, of my 15K budget, 12,900–13,150 is spent, and with the rest, I can buy a new cabinet / PSU combo, maybe also squeezing in a USB keyboard. What say you?

Karthik

 If you really need both PATA drives and cannot do without upgrading your storage, then I'd suggest the Zebronics 650 SLI motherboard. This board is one of the only ones to feature two PATA ports. It should cost around 4,500 bucks now. Also look at the E4300 and save some money, as the performance difference is minimal. If you decide to ditch both PATA drives, then go for a Seagate 7200.10 series 160 GB hard drive, or if you can afford it, the 250 GB series, which should cost Rs 2,200 and 3,000 respectively.

The extra bit you squeeze in should allow you to go for a decent cabinet + SMPS combination. A USB keyboard should cost around Rs 500; Logitech has some decent entry-level offerings. ■

Ask Away!

Want a tech product, but don't know how to go about buying it? E-mail agent001@thinkdigit.com with your complete contact details, and he might answer them here! Please note that Agent001 only answers purchase-related questions in this space.

Ion Maidens

Nobody's looking for just plain old telephony from a cell phone any more; they've become a part of our work, and a part of our play....

Sanket Naik

When it comes to cell phones, the country is at a sweet spot right now—the place where demand and supply curves intersect, and maximum satisfaction is achieved.

With portable productivity becoming a necessity, we're seeing multimedia phones with PDA-like functions, and PDAs with superb cameras and great PMP capabilities; people want one device to do it all, and they're prepared to shell out the premium. Be it the Apple iPhone, Nokia N95 or Sony Ericsson W910i, every cell phone has something new on offer—something radically different that promises to change the way we use them today.

A year ago, cameras and music players were considered luxury features, and only cell phones above Rs 10,000 used to come with them. Today, even entry level models from most vendors have two megapixel cameras and a decent music player. Cell phones are being increasingly used for listening to music, watching videos, taking causal photographs, playing games, chatting on messengers, reading e-books—the possibilities are unlimited. They reflect our lifestyles, and new innovations are based around our senses—touch, movement—something natural.

In this comparison, we were in for some surprises; the first was the iPhone—something so radical it changed our perceptions of how a phone should be. Second was the Sony Ericsson W910i, another example where movements are used for changing music tracks. Third, the three phones with five megapixel cameras that are as good as digital cameras. Fourth was Motorola's RAZR V2—a style icon—and lastly, the svelte Blackberry Pearl 8120. Then there were some that amazed us—the sheer value for money that is the Nokia E51. Read on to see the best for you.



RATINGS

Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

LG KE970

Born to shine!

The LG KE970—also known as the Shine—is aptly named, because the first thing you notice about the phone is the brilliant shine from the brushed stainless-steel body. Even the main display is mirror-finished, and when the screen is inactive, you can actually use it like one!

This tri-band phone is based around a slider design. The slider mechanism feels smooth; opening the phone takes just a nudge. Build quality is good, and the phone is comfortable to hold. The (largish) 2.3-inch high-resolution display looks brilliant indoors; however, it pales outdoors—this can be attributed to the glossy screen.

The volume control buttons are on the right along with the shortcuts to the camera and music player. To use the memory card slot, you need to remove the battery cover, but it is hot-swappable. The phone's 50 MB of internal memory can be augmented using microSD cards.

The keypad is flat but easy to use because the individual keys are large. The navigation keys aren't the best we've seen, though. The rocker in the middle scrolls though the menu and can be pressed to activate the menu. The adjoining keys allow horizontal movement but they are small and tight—uncomfortable, we thought.

The 2-megapixel camera, though good, can't match the ones on entry-level

Sony Ericsson models such as the K550i. The auto-focus system requires delicate use of the dinky shutter release key; a little clumsiness, and you'll see blurred, washed-out photographs. Tonal accuracy isn't that great either; the photos are generally overexposed. Outdoors, the camera fares better, and the colours are more natural. Video recording is strictly okay; it is limited by the resolution and fps.

Music on the KE970 was good; the phone handles MP3, AAC, and AAC+. The Inline control with 3.5 mm jack allows you to connect different pair of earphones, though the bundled pair is okay. With our reference Bose in-ear phones, the volume level was good and the quality crisp, but there is still room for improvement.

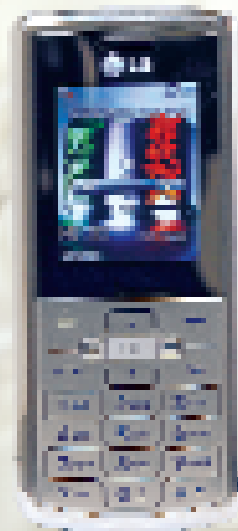
PhotoID, Bluetooth, mobile e-mail, USB mass storage, and a document viewer for MS Word, Excel, PowerPoint, and PDF are some of the other notable features.

On the performance front, the phone is snappy, with no apparent lag in the user interface. Signal reception is good; however, voice clarity could have been better. With nominal use, the phone goes two days before the low battery alarm pops up.

The LG KE970 is a stylish phone, and is reasonably priced at Rs 11,990—if you can put up with the operational glitches and the extra bling.

LG KE770

Sleek, cool, affordable



RATINGS

Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

The KE770 is the second phone in the Shine series from LG. It's a candybar; "sleek and shiny" is the best way to describe it. At 9.9 mm, it's slimmer than the Motorola L9 phone (on which it is modelled). Built from stainless steel with no moving parts, the KE770 exudes the built-to-last feel.

When the display is in inactive mode, the mirror-finished display screen can be, well, a mirror. The well-lit, flat keypad is a joy to use, with distinct tactile feedback. The navigational keys are well-spaced-out and free from the glitches you'll see on the KE970. The Call End button is placed near the top and to the side; it also acts as a Power Down switch—strange placement, we'd say, but effective for one-handed operation.

The volume control buttons, Camera / MP3 button, and USB connectors are on the same side. Internal memory is 70 MB, which can be increased via the microSD card. The memory slot is placed below the battery, and it isn't hot-swappable.

The 2MP camera with the photo-assist light and self-portrait mirror is on the back of the phone. The camera is similar to the one on the KE970, and the performance is similar, too. Indoor shots lack tonal accuracy, and are often overex-

posed. Outdoor images retain tonal accuracy but lack crispness.

Music quality is not really great, but given that it isn't touted as a music phone, we'd say the music capability is reasonable. There are no external playback controls. MP3, AAC, AAC+, 3GP, and MPEG4 are supported, but files need to be copied to the right folder on the phone—else the media player can't search through to them. Video playback is just about okay—it is seriously limited by the screen size.

The phone has a good bundle of applications: MS office file viewers, PDF readers, a health chart, and a data wallet. The phone also support the Lost Mobile Tracking System (LMTS). You'll also find regular applications such as the clock, calculator, games, and more.

Signal reception was good, but voice clarity could do with a lot of improvement—especially that of the speakerphone. The volume is too low, and it crackles as well. Flight mode figures, and that's a plus. Battery life is around a day and a half with nominal usage.

A price of Rs 7,990 means the KE770 is a good buy if you are looking for a sleek, cool-looking phone. If you're planning on using multimedia features on a regular basis, we'd suggest you look elsewhere.

Samsung G600

One great slider!

Samsung makes the best slider phones, and the G600 would make you agree. It is a quad-band 2G slider; the fit and finish are exemplary. At 105 grams, it's light, and the proportions are just right—the phone fits snugly in one's palm. And it looks good, too—you might say "sophisticated"; it sports a black-grey combination with silver accents.

The front facia is dominated by a (large) 2.2-inch display capable of 16 million colours. The display is sharp and the colours crisp. Outdoors, the screen goes pale, but it remains perfectly legible even in direct sunlight. The navigational buttons are well-spaced-out and the Call and End keys are huge. The five-way roundel is superb, and can be used to navigate the menu without looking at the phone.

The spring-loaded slider can be operated with the minimum of force; it's the best slider mechanism we've yet seen. The keypad is large and tactile, and therefore easy to use. But here's a damper: when you enter a number, the digits on the screen appear as if written using a calligraphy pen (complete with the "scratching" sound)!

The G600 is equipped with 40 MB of internal memory with support for hot-swappable microSD cards. Samsung doesn't bundle any, and the internal memory is too low (for the camera or for

the music player).

The G600 joins the ranks of the Nokia N95 and the Sony Ericsson K850i by cramming in a 5-megapixel camera. During our tests, the camera performed well; the images were clean, and the tonal balance good; outdoor photographs were better than indoors. A good camera overall, but it's not quite close to those on the Sony Ericsson or Nokia. The camera is on the slider, and it needs to be opened before you can click; though it protects the lenses, clicking snaps with the slider open isn't practical.

The G600 supports most music formats, and has a great media player. The headphone connector is, unfortunately, proprietary, so replacement 3.5-mm-jack earphones can't be used.

Performance-wise, the response of the G600 is good; skipping from menu to menu is fast. Signal reception is great, and so is voice clarity. The speakerphone is loud enough, and doesn't suffer from echo problems like those on most phones do. Battery life is healthy—two and a half days with nominal usage.

Retailing at Rs 18,000, the G600 seems reasonably priced. As a phone, it shines in all departments, but if you want a multimedia device, we should say there are better options. If what you really want is a quality slider phone, the G600 should fit the bill.



RATINGS

Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

Motorola MOTO RAZR 2 V8

RAZR fans, listen up...

With the release of the MOTO RAZR 2 V8, Motorola has yet again raised the bar for stylish cell phones. In fact, just "stylish" doesn't do it justice—it's stunning! In its second iteration, the body of the MOTO RAZR is built from exquisite materials; it comes with two large screens, a revamped keypad, and a great music player.

The RAZR 2 feels slimmer than the original RAZR, thanks to a less pronounced chin. The 2.2-inch LCD on the flap is the first of its kind on any phone—it's sharp, and the clarity is amazing. Near the bottom of this screen are touch-sensitive electrostatic keys. All the keys on the new RAZR, including the touch-keys, vibrate when pressed—this, we think, is good in terms of haptic feedback.

The interiors of the V8 are pretty similar to those of the original RAZR except for the keypad layout and the overall feel. The main display is similar to the one on the flap—2.2-inch, 256K colours. The display is sharp and completely legible outdoors. The keypad has changed for the better—it has more feedback, and the backlight is much better than on the original RAZR.

The most significant change, however, is in the user interface. The phone is based on the Linux+Java platform, called MOTOMAGX. The interface is visually more refined and definitely

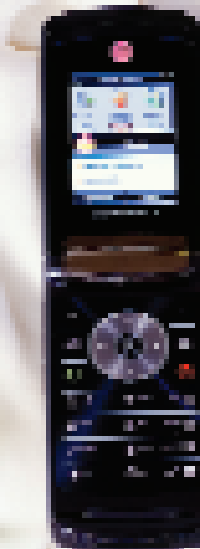
better than that of the older Motorola phones (the ones we're used to cursing!).

The multimedia, especially the music player, is excellent. Playback can be controlled without opening the flap, thanks to the touch-sensitive buttons. Audio quality is excellent, and the bundled earphones are good. The phone supports the MP3, AAC, and AAC+ formats, but there's no FM radio. Also, bundled memory is just 512 MB, with no expansion allowed—lame, from a media player perspective.

The camera is reasonably good—about as good as any other 2MP cell phone camera. Indoors, photographs turn out dark; colours also get affected in low-light conditions. Video recording is strictly okay.

In our tests, signal reception was good in all the conditions we put the phone through. Voice clarity was good, with no crackling or echo when we used the speakerphone. Battery life, when compared to the earlier model, is much better: with nominal usage, the phone remained alive for two days.

The Motorola RAZR is expensive at Rs 16,799; you can get a better-featured phone at that price point. However, there is a RAZR fan following, and the new phone strikes the right chord.



RATINGS

Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

Motorola SLVR L9

A no-nonsense candy-bar

The MOTO SLVR line features typical, no-nonsense, slim candy-bar phones with a reasonable amount of features. The SLVR L9 is the successor of the L7; in the looks department, the two are nearly identical.

Despite it being entry-level, the fit and finish of the L9 are surprisingly good. The pearl-grey finish is as good as that on the more expensive RAZR 2. The back cover is finished in rubberised material, and therefore offers good grip.

A 2-inch, 256 colour, 176 x 220 LCD is more than enough for this phone. The screen is sharp and bright, and stays perfectly legible outdoors. The navigational keys consists of a roundel and two soft menu keys. There are two additional buttons (for Cancel and launching FM).

The keypad is well-spaced, with each key being separated from the other by small ridges; however, the tactile feedback isn't as good as that on the new RAZR 2, despite the visual similarities.

One of the prominent differences with respect to the older L7 is the fact that the memory slot is on the right. The L9 accepts microSD up to 2 GB (the

phone has just 20 MB of internal memory). With many phones supporting up to 4 GB of additional memory, this is a bit of a disappointment. The user interface on the L9 hasn't been upgraded to the newer MOTOMAGX—it uses the older, not-so-polished UI. Well, we should say it is easy to work with, but visually-speaking, Symbian's revised Series 40 is more intuitive.

Coming to multimedia, the SLVR L9 supports the MP3, AAC, AAC+ and MPEG4 formats. The media player is mediocre compared to that on the RAZR, and indeed, that of any music phone today. Audio quality is reasonably good.

The 2-megapixel camera is pretty much similar to that on the RAZR 2. The camera performs admirably outdoors; in low-light conditions and indoor environments, photos turn out dark. It's also capable of recording video in the MPEG4 format, but the quality is nothing to write home about.

We had no problems as far as signal reception goes, but the speakerphone clarity could have been better. Battery life is strictly okay—we got around two days with nominal usage. At Rs 8,399 the L9 is reasonably-priced; however, we can't see any compelling reason to recommend it to anyone.

Sony-Ericsson W910i

The Ultimate Walkman slider

The W910i is the latest in the Walkman series of phones from Sony Ericsson. It comes with a new media-browsing interface, and an inbuilt motion sensor for games and music.

The slim W910i employs a smooth slider mechanism. The front facia is dominated by a (huge!) 2.4-inch LCD screen—strikingly beautiful, and it remains perfectly legible even in direct sunlight.

The navigational keys include a small steel five-way rocker which doubles up as the Playback control when using media player, and two soft menu keys. Two additional keys are placed near the top, which are configured for the photo album by default; they can be used while gaming as well. The flat keypad lacks tactile feedback and feels mushy—not good if you SMS a lot. The Power On and Walkman buttons at the top are rather difficult to operate.

Music is the forte of the W910i. Playback quality is awesome; the bundled earphones are simply superb, plus you can use any 3.5 mm earphones you'd like. Two features have been added, called Shake control and SenseMe. Shake Control, as the name suggests, implies the use of motion

sensors (gyroscopes, to be precise) to control music playback. Shake the phone in one direction to switch to the next track and in the other direction for the previous track—you've no doubt seen this in the advertisements for the phone. The feature works overall, but it needs refinement. SenseMe is a kind of media browser where tracks are sorted by tempo (like fast or slow) and mood (happy or sad). For a song to be tagged with the right mood, it needs to be uploaded via the Media Manager application (otherwise it remains hidden from SenseMe).

The camera on the W910i is decent, but not the best; you'd have expected SE to do better. As with all 2MP cameras, it performs better outdoors; image quality decreases with light. Video recording is okay.

The phone itself is typical SE—a simple user interface and snappy performance. A 2 GB card is included, and you also get a USB reader with this phone. The only gripe we had with the phone was the keypad, which has no tactile feedback, and feels like the buttons on washing machines.

The W910i is easily the best of the W series of phones from SE. Retailing at Rs 18,899, we'd recommend the W910i to someone looking for a suave, slim music phone.

Sony-Ericsson K810i

Good as a camera phone

The K810i comes from Sony Ericsson's Cyber-shot series. The 3.2-megapixel camera sensor is what differentiates this phone from the crowd and from other SE phones. The 810i is aimed at causal shutterbugs, and has some neat features that should go down well with that audience.

The translucent body with steel buttons gives the phone its unique appearance. The phone is quite long, but is comfortable to hold. The back cover is finished in rubberised material, and that gives the phone excellent grip, which is good for clicking snaps.

The navigational keys are similar to those on older SE phones such as the K750i. The joystick is much better, though, and well-recessed. The soft menu keys and additional shortcuts keys are small and tightly placed; this could turn out to be a problem for some. The keypad is well-spaced-out, and consists of little round keys—much better than those on the K550i or the W880i. At first sight, the keypad might seem uncomfortable, but you'll find it's not.

The 3.2MP camera is well-protected by a sliding lens cover. Being a Cybershot, it has one-touch shortcut keys to change flash modes, timer, Macro, and megapixel rating. One row of the keypad has the appropriate markings, and gets highlighted when camera

mode is activated. There are two buttons near the top, for changing the shooting mode and scenes. The Auto-focus works well and locks on the subject immediately, but in low light, it takes a while. There is a reasonably powerful xenon flash to light up the subject. Performance is quite what you'd expect from a 3-megapixel camera. Colours, sharpness, and detail were perfect; more importantly, the shooting experience is great.

The K810i can play music too, and the quality is above average; it can't match that of the Walkman series, though. Further, the bundled earphones are the regular ones (which come with entry-level Sony-Ericsson phones), not the Fontopias. The K810i supports MS micro memory cards; though SE has bundled 128 MB, it might not be enough if you plan to carry music and click photographs at 3 megapixels.

We had no issues with the phone performance; signal reception was good, and so was the voice clarity. Battery life is okay—expect around two days unless you plan to surf the Internet and use Bluetooth a lot.

The K810i retails at Rs 15,500; we say it's reasonable. In fact, we'd recommend the K810i to anyone looking out for a good camera phone.

Sony-Ericsson K850i

Some of this, some of that—and a great camera

The K850i is the flagship model in the Cyber-shot line-up from Sony-Ericsson. Based around a 5-megapixel camera, it's pitted against Nokia's N95 as far as the camera is concerned. The K850i comes in at a notch above the K810i.

The phone sports a completely revamped design, with hardly any resemblance to earlier SE models. It is blocky, but the fit and finish are excellent. A nice, luminous green strip runs around the edge.

The navigational D-pad is a squarish ring that surrounds the 2 and 5 number keys. The edges are raised for proper contact. There is no action button; rather, there are touch-sensitive buttons just below the screen. They are context-sensitive and are dynamically assigned the proper functions, similar to soft menu buttons. The touch-sensitive buttons work flawlessly, but require some time to get used to. The backlight at times seems overpowering, and distracts. The keypad consists of small square buttons—usable, but no fun when texting.

The camera is at the back, and the lenses have their own retracting cover. A hard plastic sheet is drawn over the length of the phone, covering the lens. It protects the shiny back of the phone, but also attracts fingerprints; when clicking, you'll need to clean the portion near the lens.

The K850i is designed to deliver a digital-camera-like experience, and it doesn't disappoint. The camera controls have evolved over the K810i, and the ergonomics are much better. Since the K850i doesn't have any additional dedicated buttons, most settings can be changed from the single touch-sensitive button.

Camera performance was superb; colour accuracy is pretty impressive—better than that on the N95. The K850i feels snappier throughout; it starts in an instant, file saves are fast, and it switches back to the phone in a second. Indoors, the camera has a tendency to underexpose if the flash is used.

The K850i comes with 40 MB of internal memory, and a 512 MB MS micro card comes bundled, but with a 5 megapixel camera and music, you'll have to buy more memory. Music-wise, the phone is on par with the K810i, and it betters the N95, but can't match any of the W series phones.

Priced at Rs 21,000, the K850i is 10K cheaper than the Nokia N95. It misses out on GPS and WiFi, but it has a much better camera and music player, and longer battery life. Let's just say the K850i fits the bill if you want a good smartphone with an excellent camera.

RATINGS	
Features	★★★★●
Performance	★★★★●
Build Quality	★★★★●
Value for Money	★★★★●
Overall	★★★★●

RATINGS	
Features	★★★★●
Performance	★★★★●
Build Quality	★★★★●
Value for Money	★★★★●
Overall	★★★★●

RATINGS	
Features	★★★★●
Performance	★★★★●
Build Quality	★★★★●
Value for Money	★★★★●
Overall	★★★★●

RATINGS	
Features	★★★★●
Performance	★★★★●
Build Quality	★★★★●
Value for Money	★★★★●
Overall	★★★★●

Nokia N95 8GB

This is it!

The successor to the acclaimed N95, this new incarnation just got better all round.

The navigational console has been completely revamped. The oblong buttons are easy to use, and the directional pad is much better than that on the N95. The extra chrome on the buttons could have been avoided, we think—it picks up finger smudges and is likely to peel off. The number keypad is well-laid-out, but the hard-touch keys, combined with the slightly raised surface, makes finger-pad touch-typing a pain.

The music player is feature-rich—you can shuffle and repeat tracks, there's a functional equaliser, and a visualisation function too. Audio quality seems to have improved over the N95. Music quality is decent on the supplied earplugs, and this phone is just great with better earphones! Sony Ericsson still rules the game with their Walkman series of phones, though.

The 5MP camera is another first—great image quality and a good flash unit. However, like all cell phone cameras, the zoom is useless. The lens cover you see on the N95

has been dropped in this new incarnation—and that's not something we approve of.

Image quality is similar to that on the N95. The camera performs admirably outdoors; colour saturation is perfect, and so is the exposure. Indoors, in low-light conditions, the focus tends to hunt for a while, and tonal accuracy suffers as well.

The phone comes with 160 MB of internal memory, which is well-supplemented by 8 GB of flash memory. No expansion is available for memory cards, but it's not required. There's a fully-functional GPS application inbuilt. This works well in conjunction with a GPRS connection. WiFi (g) is inbuilt, as is the mandatory Bluetooth (version 2.0, now with A2DP), and the jurrassic infrared. For the radio fan, the N95 8 GB incorporates FM radio.

The new N95 8GB comes with higher-capacity batteries that extend its life by two hours over the N95. With nominal use, we got around two days of battery (45 minutes of talking, 2 hours of listening to music, and intermittent GPRS use).

In conclusion, the Nokia N95 8 GB is a superb convergent device. Be it music, camera, GPS, or Internet connectivity, it just does everything better than most devices on the market. Priced at Rs 28,000, this is the device to have—if you can cough up the money.

Nokia N81 8GB

Good enough music, not-so-good camera

The N81 marks Nokia's entry into music-related services similar to that offered by Apple (as in iTunes). Like the N73 and N95, the N81 comes in two editions—Standard and Music. The former has a memory card slot, while the latter has 8 GB of flash memory and no memory slot.

The N81 is handsome—rounded edges, black lustrous finish, and you'll notice the use of contrasting brushed silver on the edges. Build quality is excellent, and though the body has a plastic feel to it, it's rugged, and should take the rigours of everyday life.

The slider mechanism is taut, but we've seen better ones on Samsung phones (and lately, the Sony Ericsson W910i).

The front facia is dominated by a huge, sparkingly-clear 2.4-inch display. The screen equals that on the N95 (which has the best among cell phones).

Just below the screen is a whole new navigational console. The directional pad (D-Pad) now also acts like a touch-sensitive scroll wheel, but the keys can also be used like regular keys. Though it works OK, the touch-sensitive scrolling needs refinement. The playback control keys are cramped near the D-pad and are frustrating. The

alphanumeric keypad isn't quite what we expected from Nokia; it is flat, hard, and frustrating to use.

The music player is similar to that on the N95 and other Symbian-based phones. However, the Navi-scroll gives it an edge in terms of usability. We'd like to see Nokia ironing out the chinks in the touch-sensitive UI. Eight GB of memory means enough space to pack in your entire collection. Transfer times are reasonably fast. Audio quality is good, and nearly equals that of the N95; what we liked was the placement of the 3.5 mm jack—it's on the top. The bundled earphones are good, but we liked our music with the Bose in-ear plugs.

The camera is a complete let down, be warned: just 2 megapixels doesn't cut it anymore—at least not on a high-end phone.

Three games come preinstalled—all of them demos. The games are based on the Ngage platform, and gaming is fun thanks to two additional keys and the excellent display. Internet browsing is great—thanks largely to the Web browser which is the best you'll get on a handheld today.

The Nokia N81 8 GB retails at Rs 19,400. That price is reasonable, but we feel the N95 is a much better overall device—we'd recommend it over the N81.

BUSI -

Nokia E65

Not quite the E...

As much as common sense tells us to avoid slider phones for obvious reasons—as in moving parts, wear and tear—they're hot! The E65 is red-hot (literally), and it's available in mocha, too. The entirely matte-finished body offers good grip, and it manages to also look classy. Red-russet brown really—might not appeal to all, but the soft contours are nice.

With Bluetooth, WiFi, 3G, EDGE, and more, the E65 is a business-oriented device with some artistic flair. The number keypad is well-laid-out with raised demarcations on each key, similar to the N95—but remember there's no QWERTY. Keypad backlighting is good. The 2MP camera and the music player are pretty ordinary.

Pop the hood and it's a Symbian S60 9.1 device. Quick Office has been provided, but it's Word and Excel editing at its barest (document creation is out of the question). GPS software is bundled: it'll work with any Bluetooth GPS device. There's also a pretty nifty text-to-speech module that will read out data whose menus are placed in the Voice Aid

folder. Contacts can be read out, as can phone numbers, recent calls, and the time. You also get a voice assist while dialling, which will help in the event of miss dialling while in a hurry (only if you remember the number). Still, we think the software needs a lot of work to be decently functional.

The phone is slow, though, especially while using the voice functions—which bespeaks low memory. Call quality is good, but not on par with some of the other Nokia phones we've tested. Calls disconnect easily when signal strength is at one tower.

At Rs 16,800, the E65 isn't the definitive business phone that the E series label might indicate. A phone with very similar specifications and functions with a cheaper price tag comes to mind—the N80. But then all new phones are costly, and a couple of price cuts may see this one become popular.

Nokia E51

A classic reborn

If you are an executive in the market for a cell phone, Nokia's E series offers the best bang for the buck.

The E51 has a superb 2-inch display capable of 16 million colours. The resolution of 240 x 320 is very high for a small screen, so fonts appear sharp and crisp. In direct sunlight, the screen is completely legible—even at half the maximum brightness!

As compared to the E50, the new phone has a completely revised keypad with dedicated keys for Contacts, Calendar, E-mail, and Home. This approach has its advantages: you can directly access essential information at the touch of a button. The soft menu keys, however, are a pain to use—they are too small for comfort. The keypad is a delight to use—good tactile feedback, and the key spacing is immaculate. The rubberised keys for volume up / down, push to talk, and the power switch are hard to operate, and require some serious poking to work.

The E51 is peppy—it uses the same processor as the flagship N95 model. With 130 MB of memory onboard, you can do lot of multi-tasking without the phone getting slow, and the memory can be expanded to 4 GB via the microSD slot. The E51 runs on Symbian OS S60, and crams in a lot of additional features. For example, the Advanced Call Manager lets you manage incoming and outgoing calls more efficiently. WorldMate, an application meant for

frequent fliers, comes bundled too.

The Nokia E51 has an abundance of connectivity options. It's a 3G quad-band phone with HSDPA, WiFi (802.11g), Bluetooth, Micro USB, as well as infrared (just in case). The WiFi locator feature helps a great deal in searching for nearby WiFi hotspots. Multimedia features include an MP3 player (it sounds good), a 2MP camera with still and video shooting, and FM radio.

The phone performed admirably during our tests; signal reception was good, and so was the voice clarity. Internet browsing was fast as compared to the E50 or E61, thanks to the revised Web browser. The pictures from the camera were above average, but not in low light. The speakerphone is clear, with little or no echo on the recipient's side. The speaker is placed on the anterior side of the phone, and though it's loud enough, when it's placed on softer surfaces such as a bed or sofa, the ringer volume gets muffled. Battery life is good—we got around three days with nominal usage and a terrific seven days of standby.

The Nokia E51 retails at Rs 13,000, and we say that's how Nokia should price all its phones. For truckloads of features, snappy performance, classy looks, and terrific pricing, the Nokia E51 is a must-buy!

RATINGS	
Features	★★★★★
Performance	★★★★★
Value for Money	★★★★★
Build Quality	★★★★★
Overall	★★★★★

RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

Palm Treo 750

Windows on a Palm!

The Treo 750 is the latest PDA phone from Palm; it promises one-handed operation (a Palm trait), though it's a Windows Mobile based device. The phone has a lot in common with its predecessors on the design front, and it has the distinctive Palm device feel to it—nice!

The new phone is tad slimmer than its predecessors; it feels lighter, and the curvaceous design helps hide the bulk.

The 2.5-inch LCD screen dominates the front. It is sharp and completely legible in direct sunlight. The navigational console (buttons) consists of a five-way rocker, two soft keys, and four additional pre-defined keys (Call, Windows key, Hang up, and OK).

The dinky QWERTY thumb-board still remains one of the best we've seen thus far; though small and cramped, the chances of mistyping are very low.

The phone is powered by Window Mobile Version 6; given that the phone runs a 300 MHz processor, this may not have been a smart choice—Windows Mobile version 6 requires a speedy processor. As available memory goes, the

Treo 750 is anaemic, and Windows' dodgy memory management doesn't help either.

Palm has done its bit to revamp the interface and make it easy to navigate without touching the stylus—something we really like about Palm devices. The "Today Screen" shows information such as messages, e-mail, voicemail, appointments, and more upfront; each of them can be accessed using just the navigation keys. To place a call, a contact name can be directly keyed in from within the Today Screen.

On the performance front, the phone is no slouch; the UI is generally zippy—applications open in a snap. We did encounter some instances when the phone nearly crawled when a lot of applications were open, but then no-one opens too many applications simultaneously in a real-world situation. We encountered no signal issues, and voice clarity was good with no background noise or echo. The speakerphone quality is good, too; however, the ringer volume needs improvement. The camera quality is average.

At Rs 22,990, the Treo 750 is expensive considering that competing models offer a better feature set at a lower price. Palm is giving away a foldable Bluetooth keyboard along with this phone, but that still doesn't justify the price. Nevertheless, discounting the high price, the Treo 750 is a good Windows-based PDA phone.



RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

Motorola Moto Q V8

A great bundle—but that's about it

The Moto Q marks Motorola's entry into the highly-competitive PDA cell phone market. The company has earlier tried getting into this market via their A series of phones (Moto Ming), but failed to garner any footing.

For the Moto Q, Motorola has gone with the tried-and-tested design for a QWERTY phone. It is wide but well proportioned, and therefore feels much better to hold when compared with Nokia's E61/61i. Lessons learnt from the RAZR have been used to good effect on the Moto Q; the phone is slim for a PDA phone.

Finished in jet black, the exterior has a rubberised feel, and the body offers excellent grip. Except for the navigational D-pad, all the buttons are flat and at times difficult to press. The QWERTY keypad offers excellent tactile feedback and equals that of those on high-end PDAs such as those from BlackBerry and Palm.

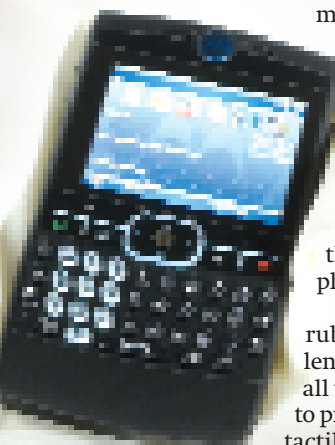
The 320 x 240, 2.4-inch, 65K colour screen seems dated; the Nokia E61 has had a 16 million colour screen for a long time. The Moto Q has an anaemic 40 MB of internal memory, which can be augmented via the bundled 1 GB mini SD card.

The Moto Q runs on Windows Mobile 6, and the user interface is zippy. By default, the Moto Q uses Motorola's theme, but we prefer the Windows theme. The Today screen can be customised to show events such as meetings and birthdays, as well as e-mails and text messages.

The "Documents To Go" application comes preinstalled, and it's great; it ably handles Word, Excel, PowerPoint, and ZIP files. A default Windows file manager helps browsing the device effectively. System tools include a memory manager and a task manager. (The task manager is useful for when you need to know about background processes and kill them.)

Multimedia features are mediocre; Windows Media Player can be used for MP3s and video. The 1.3MP camera is strictly okay; the photographs are passable, and video capture is jerky. Connectivity options include USB, Bluetooth, IR, GPRS, and EDGE. Motorola has been generous with the bundle: a portable adapter, a good-quality leather pouch, a headset, the USB cable, the 1 GB miniSD card, and two batteries. The higher-capacity battery is fatter and requires a different battery cover, which also comes bundled.

Rs 17,325 is expensive for the hardware on offer. The Nokia E61i with WiFi and better multimedia features is available for less.



RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

ASUS P750

The über business phone

The ASUS P750 is top-of-the-line, 3G capable PDA phone that has every possible feature you'd ever want. The design is gorgeous, and the phone looks great in its matt black outfit.

Though oriented towards executives, the P750 lacks a QWERTY keypad; it does have touch screen, which in combination with Windows Mobile 6 makes up for the lack. There are five input options available, and the XT9 option works like a charm—it can predict words better than the old T9 dictionary most other cell phones have.

The 320 x 240, 2.6-inch touch screen is good; it lacks brilliance (only 65K colours) but it works. The joystick and jog dial have excellent tactile feedback, and they never jump a menu. The alpha-numeric keypad is well spaced out and works out great for typing short messages.

The P750 comes loaded with an abundance of pre-installed applications—Microsoft Office 6.1, including Word, Excel, PowerPoint, Notes and Calendar, is the highlight. The P750 also features GPS, a business card reader, UR time home screen, Remote presenter, Java, ASUS launcher, etc.—this phone is a treasure trove.

The media player supports MP3, WMA, AAC, AAC+ and 3GP. The audio quality is good, considering that this is a business phone. The

onboard 3 megapixel camera delivers reasonably good photographs, provided there is adequate light; video recording is passable. The phone comes with 65 MB of memory, which can be augmented to up to 2 GB via the microSDHC slots.

Internet browsing was relatively fast, and setting up WiFi network is smooth, without any hiccups. Other connectivity options include Bluetooth, GPRS, HSDPA and USB. ASUS has been generous with the bundle—nice leather pouch, USB cables, adapter, in-car phone cradle, and a box full of manuals.

The P750 performed admirably. The signal reception was good; in low reception areas calls weren't dropped. Voice clarity is great, and the speakerphone is loud and clear. On nominal usage—45 minutes of talking, some Internet access and music—the phone stayed alive for three days.

At Rs 32,000, the P570 is a good deal for the hardware and the software on offer. Most importantly, the P750 delivers in the area that matters the most—usability.



RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

ASUS P526

PDA for the masses

The P526 is an affordable PDA phone that goes head-to-head with the Sony Ericsson P1i and Nokia E61i. Priced at Rs 17,000, it offers a good value as an entry level touch screen based cell phone. The handset's design is very similar to its high-end sibling, the P750. The P526 is well-proportioned, and feels more comfortable to hold than Nokia's E61i.

The P526 doesn't have a joystick, and completely relies on the touch screen for navigation, which isn't very intuitive. The soft menu buttons and two dedicated buttons are in the form of a small thin strip, and are difficult to operate. The keypad is well spaced, and offers good tactile feedback.

The P526 is also comes bundled with the necessary applications—Mobile Word, Excel and Powerpoint. PIM functions include a Meeting Time Planner, Remote Presenter, Voice commander, business card recognition and Java support. The phone also includes GPS, but the corresponding software needs to be installed separately.

Audio quality is so-so, and can't match the Nokia E61i or Sony Ericsson P1i. The 2 megapixel camera delivers decent photographs, but only in well-lit rooms. Outdoors, it performs like any other 2 megapixel camera; good exposure and

consistent colour accuracy. The phone comes with 128 MB of internal memory, and that can be increased via the microSD card.

Internet browsing on GPRS was slow, but that's more of a provider issue. No WiFi is a serious shortcoming; the competition has it, and they also have the newer Bluetooth 2.0 with A2DP, while the P526 just has version 1.2. The ASUS P526 has good signal reception, and we had no problem with dropped calls or static. Voice clarity was good, and the battery survived for two days on 45 minutes of talk, GPRS usage and tinkering around with GPS.

To summarise, the ASUS P526 performs well, comes pre-installed with useful applications and has loads of features but misses out on essentials such as WiFi. If you want an affordable touch screen PDA phone, then the ASUS P256 fits the bill. However, also consider Nokia E61i and Sony Ericsson P1i as viable options.



RATINGS	
Features	★★★★★
Performance	★★★★★
Build Quality	★★★★★
Value for Money	★★★★★
Overall	★★★★★

Sony Ericsson P1i

Fixing old mistakes



The P1 is the latest in Sony Ericsson's business line, succeeding both the P990i and the M600i—bringing the former's functionality to the latter's form factor. Its dimensions are nearly the same as the M600i, adding a couple of millimetres to the thickness, and its style statement is in Chinese—the shiny plastic sides and the chrome details look downright tacky, and we prefer the M600i's matte finish. It's based on the same Symbian UIQ 3 platform as the P990i and M600i, with a few minor changes. The OS is definitely quicker, which is probably due to the oodles of program memory that the phone comes with—128 MB, doubling the M600i's 64. Other than that, there's nothing remarkably new here.

Just like the M600i, the phone doesn't feature any soft-keys, and you're expected to operate it using either the stylus or your fingers on the touchscreen. There's also the three-way jog dial, which thankfully does away with the annoying protrusion that featured on the previous phones. The screen itself is wonderfully vibrant and quite responsive to touch, but is naturally a fingerprint magnet. We recommend

slapping on a screen guard the second you open the box—the screen's responsiveness will suffer a tad, but it'll be worth it. The stylus is longer and easier to write with, and its locking mechanism seems much firmer than the M600i's flimsy setup. The QWERTY keypad is the same as the M600i—two letters to the key—and is just as easy to get used to.

The 3.2 megapixel camera is respectable, though not exceptional—indoor photos are a bit grainy, but overall, the clarity and colour balance of the photos satisfies. There's a second camera on the front for video calls, but you can't take self-portraits with it. Like the P990i, this model also comes with a business card scanner—just take a photo of a business card, and the OCR software will create a new contact for you. The feature works just as well (or as badly, as the case may be) as the one on the P990i.

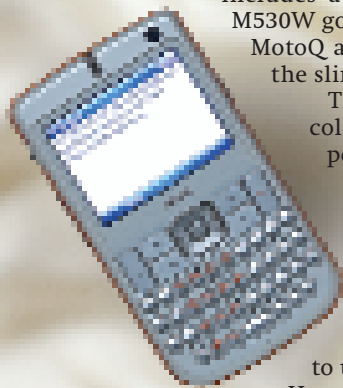
In the connectivity department, the P1i supports 3G (but no EDGE) and WiFi—802.11b, to be precise. WiFi connection speeds are quite decent, and battery life thankfully doesn't suffer for it.

The P1i isn't really light years ahead of the P990i, but it definitely nudges it off top spot. There's no annoying flip top, the audio levels are louder and the huge program memory lets you multi-task like you've never multi-tasked before.

RATINGS	
Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

ASUS M530w

Nokia's bane



The M530w is another entry level PDA phone from ASUS—it lacks a touchscreen, but includes a full QWERTY thumb board. The M530W goes head to head with the Motorola MotoQ and the Nokia E61i—right down to the slim design.

The ASUS M530w is offered in two colours—white and black. We got the pearly white for review, and the photographs don't do it justice—it may look like the old Sony Ericsson T100, but the white body with orange detailing manages to look quite appealing. The navigational buttons are well laid out—they are large, comfortable to use and have good tactile feedback. However, the numeric keys have an orange glow thanks to the backlight, and the screen-printed numbers on them are not easily legible.

The M530w runs on Windows Mobile 6 and has all the standard features set of the mobile OS. There is no ASUS launcher application pre-installed here.

You get the ClearVue viewer for Word, Excel, PPT and PDF file formats. Other applications include Java, Remote presenter, Task Manager and a business card recogniser.

The M530w's multimedia features—especially music—are just passable. It supports MP3 and video playback, but entry level phones from other makers will easily beat the M530w at this. The 2 megapixel camera is quite similar to one on the P256, and delivers decent photographs—nothing particularly remarkable here.

There numerous connectivity options—WiFi, 3G, GPRS and Bluetooth. Internet browsing speeds are decent on WiFi and GPRS, though the battery life takes a beating when these features are used. We managed around two days of battery life on nominal usage. We didn't encounter any problem with signal reception, but voice clarity could do with work—some crackles creep in.

At Rs 18,500, the M530w goes head to head with the Nokia E61i, which has a similar feature set. Given a choice between the two, choosing one is a tough call; we'd stay with Nokia E61i just for Symbian.

RATINGS	
Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

Blackberry Pearl 8120

Style++

The 8120 is the latest in Blackberry's Pearl series. Though venerable in the business domain, Blackberries were devoid of any consumer frills which other phones offered—thus the Pearl 8100 was born, but it came with some shortcomings. The 8120 improves on many aspects but one—3G—but that shouldn't matter in India anyway.

The 8120 is simply gorgeous—something you will fall in love with at first sight. The phone is slim, lightweight and feels superb to hold. Its dimensions are perfect—comfortable in the palm and the pocket. The 2.2-inch display may not be the best, but it is bright enough to get your work done. Properly aliased fonts are easy on the eyes and make the most out of this screen.

The 8120 makes do with a pseudo-QWERTY keypad—two letters per key, and text entry is predictive. It takes a while to get use to this format, but we got up and running on it within an hour. The roller ball (pearl) at the centre is used for navigating menus, pages, etc., and works like a charm. The unusual input method feels odd, but once you get used to it, going back to another format is boring.

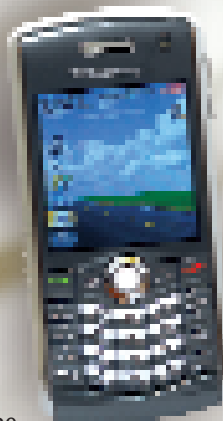
Business features are the forte of Blackberries, and that requires no introduction. The phone can easily handle most commonly used files types—DOC, XLS, PDF, etc. The PIM func-

tions are well implemented, and are quite easy to grasp.

The 8120 supports most music formats, and does a good job of playing them. It even plays MPEG4 video. The 3.5 mm jack lets you plug in better earphones if you want them. The jack is placed near the top edge, and will be uncomfortable when in your pocket. The phone comes with a paltry 64 MB of internal memory, but supports a hot-swappable microSD card. Blackberry hasn't been able to fix the basic issues with their cameras—photographs lack sharpness, and tonal accuracy suffers.

Internet browsing using WiFi was great; not so much with GPRS. The phone also supports Bluetooth and USB. When it comes to the core function of being a telephone, Blackberry outshines most and the Pearl 8120 is no exception. It has the best call reception in this entire test. During our test, the phone remained alive for four days before needing a recharge.

At Rs 25,000, the Pearl 8120 is an excellent business device with just one shortcoming—no 3G (high speed internet). If you are interested in this model for the multimedia capabilities, we'd advise you to look elsewhere.



RATINGS	
Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

Apple iPhone

Bliss...

The iPod changed the way we listen to music, and the iPhone is bound to change the way we use a cell phone. It's not available in India yet, but we went ahead and bought one to give you a glimpse of this Next Best Thing.

The 320x480, 3.5-inch display dominates the entire length of the phone. The screen is sharp, crystal clear and has excellent colour reproduction. Watching videos is an amazing experience.

There is no keypad or QWERTY on this phone—hence the huge screen. You use a virtual keyboard—touch the letters to type them in. It's fun once you master it, but can be inaccurate if you use your thumbs.

The user interface is hard to describe in words—once you get used to the touch, using the phone becomes plain instinct. Getting around menus is fun; swipe your finger up or down to scroll any list, swipe it left or right to move left or right. The single button is used for exiting all applications—as simple as it gets.

The iPhone also has all the features of the iPod. Music quality is good, but the iPod sounds better. The bundled earphones are rubbish as usual—no bass, no

highs, just mids. The headphone jack is recessed, and all earphones don't fit it directly—they need an adapter, curse Apple. Video playback is simply the best we have seen on any portable media player. Viewing photographs is fun, and you can use your fingers to zoom in and out—very natural.

Safari does a great job of rendering non-optimised Web pages—more so if you rotate the phone to view sites in landscape mode. To read, you can zoom in and out on any part of the page. The phone is completely locked and installing additional applications requires hacking the phone; we don't recommend this.

To conclude, this is the best phone we have reviewed, period. It'll be wise to wait for the iPhone's official release in mid-2008, though.



RATINGS	
Features	★★★★
Performance	★★★★
Build Quality	★★★★
Value for Money	★★★★
Overall	★★★★

Scoreboard		Lifestyle								
BRAND MODEL	LG KE970	LG KE770	Motorola RAZR2	Motorola SLVR L9	Nokia N95 8GB	Nokia N81 8GB	Samsung G600	Sony-Ericsson W910i	Sony-Ericsson K810i	Sony-Ericsson K850
										
Price (Rupees)	Rs 11,990	Rs 7,990	Rs 16,799	Rs 8,399	Rs 28,000	Rs 19,409	Rs 17,999	Rs 18,899	Rs 15,534	Rs 20,995
Comments	+ Good build quality - Mediocre camera	+ Good value - Multimedia lacks bite	+ Stylish - No memory slot	+ Slim - Rudimentary UI	+ Great converged device - Expensive	+ Sturdily built - Mediocre camera	+ Stylishly built - None	+ Superb music quality - Bad keypad	+ Excellent camera - Audio could be better	+ Great looks - None
Features										
Physical Specs										
Form Factor	Slider	Candybar	Clam shell	Candybar	Slider	Slider	Slider	Slider	Candy bar	Candybar
Dimensions (L x W x H) (mm)	99.8 x 50.6 x 13.8	105 x 46 x 9.9	103 x 53 x 11	113 x 49 x 11.5	99 x 53 x 21	102 x 50 x 18	101 x 47.8 x 14.9	99 x 50 x 12.5	106 x 48 x 17	102 x 48 x 17
Weight (grams)	119	79	117	96	128	140	104	86	103	118
Screen Resolution (pixels)	240 x 320	176 x 220	240 x 320	176 x 220	240 x 320	240 x 320	240 x 320	240 x 320	240 x 320	240 x 320
Screen Size (inches)	2.2	1.77	2.2	1.9	2.8	2.4	2.2	2.4	2	2.2
No Of Colours (Screen)	256 K	256 K	256 K	256 K	16 M	16 M	16 M	256K	256K	256K
Touchscreen (Y/N)	No	No	Yes	No	No	No	No	No	No	Semi
Dual Screen (Y/N)	No	No	Yes , 2.2-inch 256K	No	No	No	No	No	No	No
Network Bands	Triband	Triband	Quadband	Quadband	Quadband	Quadband	Quadband	Quadband	Quadband	Quadband
Memory										
Phone Memory	50 MB	70 MB	420 MB (or 2 GB)	20 MB	8 GB	8 GB	55 MB	40 MB	64 MB	40 MB
Expandable Memory/Type	microSD	microSD	None	microSD	microSD	none	microSD	MS micro (M2)	MS micro (M2)	MS micro (M2)
Other Features										
Keypad (Regular/QWERTY)	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular	Regular
Address Book Capacity	1000	1000	1000	NA	Memory Limited	Memory Limited	1000	NA	1000	1000
No Of Calls In Register (Made/Rec./Missed)	50 / 50 / 50	50 / 50 / 50	30 / 30 / 30	10 / 10 /1 0	30 days	30 days	30 / 30 / 30	30 / 30 / 30	30 / 30 / 30	30 / 30 / 30
Voice Recorder	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Voice Dialling	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes
Talk Time (Claimed) (hours)	3	2.5	7	4	6	4	3.5	9	10	9
Standby Time (Claimed) (hours)	280	200	330	350	280	410	300	400	400	400
Operating System	Firmware	Firmware	Firmware	Firmware	Symbian S60	Symbian S60	Firmware	Firmware	Firmware	Firmware
Connectivity										
Browsing (GPRS/HSCSD/EDGE/3G)	Yes / No / Yes / No	Yes / No / Yes / No	Yes / No / Yes / No	Yes / No / Yes / No	Yes / Yes / Yes / Yes	Yes / Yes / Yes / Yes	Yes / No / Yes / No	Yes / No / Yes / No	Yes / Yes / No / Yes	Yes / No / Yes / Yes
Connectivity (WiFi/Bluetooth/IR/USB)	No / Yes / No / Yes	No / Yes / No / Yes	No / Yes / No / Yes	No / Yes / No / Yes	Yes / Yes / Yes / Yes	Yes / Yes / No / Yes	No / Yes / No / Yes	No / Yes / No / Yes	No / Yes / Yes / Yes	No / Yes / No / Yes
Camera Specs										
Camera (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Resolution (Mega Pixels)	2	2	2	2	5	2	5	2	3.2	5
Video Capture (Y/N)	Yes	Yes	Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes
Dual Cameras	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes
Flash (Y/N)	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes
Auto Focus (Y/N)	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes
Camera Settings (Scale Of 10)	5	5	5	4	7	7	7.5	7.5	8	8
Multimedia										
Music Formats Supported	MP3, AAC++	MP3, AAC++	MP3, AAC, AAC+	MP3, AAC, AAC+, MPEG4	MP3, AAC, AAC+, eAAC, WMA	MP3, AAC, MPEG4	MP3, AAC, AAC+, WMA	MP3, AAC	MP3, AAC, MPEG4	MP3, AAC, MPEG4
Playlist Features (Scale Of 10)	5	5	6	5	6	6	6.5	6.5	6.5	6.5
Audio Quality (Scale Of 10)	5	4	7.5	7	7	7	6	7.5	7	6.5
Bundled Earphones Quality (Scale Of 10)	5	5	6.5	6.5	7	7	6	7.5	5.5	6.5
Video Playback Quality (Scale Of 10)	5	5	6	5	6	6	6	5	5	6
FM Radio (Y/N)	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Build Quality (Scale Of 10)										
Body	7.5	7.5	7.5	7	6.5	8	7.5	7.5	7	7
Keys	7	7	6.5	6.5	6.5	6.5	7.5	4.5	5	6.5
Ergonomics (Scale Of 10)										
Interface (UI)	6	6	6	5.5	7	7	6	6.5	6.5	6.5
Navigation & Menus	6	6	6	5.5	7	7	6	6.5	6.5	6.5
Keypad Layout and comfort	5	6	6.5	6	7	6.5	6.5	5	6.5	7
Performance										
Signal Reception (Scale Of 10)	6	6	7	7	7.5	7	7	7	7	7
Voice Clarity (Scale Of 10)	6	6	6	6	7	7	7	6	6	7
Processing Speed (Scale Of 10)	6	6	6.5	6	7	7	7	6.5	6.5	6.5

Scoreboard										
Business										
BRAND MODEL	ASUS M530w	ASUS P526	ASUS P750	BlackBerry 8120	Motorola Moto Q V8	Nokia E65	Nokia E51	Palm Treo 750	Sony-Ericsson P1i	Apple iPhone
										
Price (Rupees)	Rs 18,490	Rs 16,990	Rs 32,000	Rs 24,990	Rs 17,325	Rs 16,800	Rs 13,000	Rs 22,990	Rs 22,500	NA
Comments	+ Slim design - Small screen	+ Good value for money - No WiFi	+ Great features - No QWERTY	+ Excellent business phone - Lacks 3G	+ Slim and light - Relatively expensive	+ Stylish - Feels filmy	+ Excellent value for money - None	+ Great one handed operation - Relatively expensive	+ Feature rich - None	+ Great user experience - No 3G, video recording
Features										
Physical Specs										
Form Factor	QWERTY Phone	Candy bar	Candybar	Candybar	Qwerty phone	Slider	Candy bar	Candybar	candybar	Candybar
Dimensions (L x W x H) (mm)	117 x 65 x 14	110 x 58 x 16	113 x 58 x 17	107 x 55 x 14	116 x 64 x 12	105 x 49 x 15	114 x 46 x 12	111 x 58 x 22	106 x 55 x 17	115 x 61 x 11
Weight (grams)	135	115	130 grams	91	115	115	100	154	124	135
Screen Resolution (pixels)	320 x 240	240 x 320	240 x 320	240 x 260	320 x 240	240 x 320	240 x 320	240 x 240	240 x 320	320 x 480
Screen Size (inches)	2.4	2.6	2.6	2.2	2.4	2.4	2	2.6	2.6	3.5
No Of Colours (Screen)	65K	65K	65K	65K	65K	16 million	16M	65K	256K	16 M
Touchscreen (Y/N)	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Dual Screen (Y/N)	No	No	No	No	No	No	No	No	No	No
Network Bands	Quadband	Quadband	Triband	Quadband	Quadband	Quadband	Quadband	Quadband	Triband	Quadband
Memory										
Phone Memory	256 MB	128 MB	64 MB	64 MB	40 MB	128 MB	130 MB	60 MB	160 MB	8 GB
Expandable Memory/Type	miniSD	microSD	microSD	microSD	miniSD	microSD	microSD	miniSD	MS micro	No
Other Features										
Keypad (Regular/QWERTY)	QWERTY	Regular	Regular	Semi-QWERTY	QWERTY	Regular	Regular	QWERTY	QWERTY	Touchpad
Address Book Capacity	Yes	Memory Limited	Memory Limited	NA	Yes	Memory Limited	Memory Limited	Memory Limited	Memory Limited	Memory Limited
No Of Calls In Register (Made/Rec./Missed)	20 / 20 / 20	20 / 20 / 20	memory limited	NA	NA	30 days max	30 days	Memory Limited	Memory Limited	Memory Limited
Voice Recorder	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Voice Dialling	No	Yes	Yes	No	Yes	Yes	Yes	No	No	No
Talk Time (Claimed) (hours)	5	4	6	4	5	6	4.5	4.5	10	8
Standby Time (Claimed) (hours)	250	150	240	360	240	265	310	200	440	250
Operating System	Windows Mobile 6	Windows Mobile 6	Windows Mobile 6	Firmware	Windows Mobile 6	Symbian S60 UI	Symbian S60	Windows Mobile 6	UIQ 3.0	Mac OSX
Connectivity										
Browsing (GPRS/HSCSD/EDGE/3G)	Yes / No / Yes / Yes	Yes / No / Yes / No	Yes / No/ Yes/ Yes	Yes / No / Yes / No	Yes / No / Yes / No	Yes / Yes / Yes / Yes	Yes / Yes / Yes / Yes	Yes / No / Yes / Yes	Yes / Yes / No / Yes	Yes / No / Yes / No
Connectivity (WiFi/Bluetooth/IR/USB)	Yes / Yes / No / Yes	No / Yes / Yes / Yes	Yes / Yes / No / Yes	Yes / Yes / No / Yes	No / Yes / Yes / Yes	Yes / Yes / Yes / Yes	Yes / Yes / Yes / Yes	No / Yes / Yes / Yes	Yes / Yes / Yes / Yes	Yes / Yes / No / Yes
Camera Specs										
Camera (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Resolution (Mega Pixels)	2	2	3	2	1.3	2	2	1.3	3	2
Video Capture (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Dual Cameras	Yes	No	Yes	No	No	No	No	No	yes	No
Flash (Y/N)	Yes	No	No	Yes	Yes	No	No	No	Yes	No
Auto Focus (Y/N)	No	No	Yes	No	No	No	No	Yes	Yes	no
Camera Settings (Scale Of 10)	6	7	6.5	6.5	5.5	5	6.5	5.5	6	5
Multimedia										
Music Formats Supported	MP3, WMA	MP3	MP3	MP3	MP3, AAC	MP3, AAC, MPEG4	MP3, AAC	MP3	MP3, AAC	MP3, AAC
Playlist Features (Scale Of 10)	5.5	6	6	6	5	6	6	5	6	8
Audio Quality (Scale Of 10)	5.5	5	6	6	5	6	6	5	6	6
Bundled Earphones Quality (Scale Of 10)	5	5	5	6	5	5	5	5	6	5
Video Playback Quality (Scale Of 10)	5	5	5.5	5.5	5	6	5	5.5	5	5
FM Radio (Y/N)	No	No	No	No	No	No	Yes	No	Yes	No
Build Quality (Scale Of 10)										
Body	7	7	7	7	6.5	7	7.5	7	7	7
Keys	6.5	7	7	7	6.5	7.5	7.5	7	7	7
Ergonomics (Scale Of 10)										
Interface (UI)	6	6.5	6.5	7	5.5	6.5	7	7	6.5	9
Navigation & Menus	6	7	7	7	5.5	6.5	7	7	6.5	9
Keypad Layout and comfort	6.5	6	6	6.5	6.5	6.5	7	7	6.5	7
Performance										
Signal Reception (Scale Of 10)	7	7	7	7.5	6	7	7.5	7	7	7
Voice Clarity (Scale Of 10)	7	7	7	6	6	7	7	7	6.5	7
Processing Speed (Scale Of 10)	7	7	7	7	6	6.5	7.5	7	6	7

Decision Maker

In this comparison test, we've omitted products we reviewed in the last comparison; most of those products are still available in the market, though. Given the choice, choosing the right phone for the right kind of application can be confusing.

MUSIC PHONES

Entry Level

At the entry level, nothing beats Sony Ericsson's Walkman phones—the W200i is where it starts from, but if you can stretch your budget by a couple of thousand, we recommend the W610i or W810i. Both these phones have excellent music quality, and are available for under Rs 10,000.

Mid-range

Here you have options from both Nokia as well as Sony Ericsson. The SE W850i and W660i have excellent audio quality, and come with good earphones. Nokia N73 Music Edition and the XpressMusic 5160 and 5130 have good music players too. Most of these phones fall in the Rs 10,000-15,000 price bracket. The Sony Ericsson phones win here for their excellent sound.

The Best

Nokia's N95, the Apple iPhone and the Sony Ericsson W910i are your best bets here. There isn't much difference in music quality between the N95 and W910i. While the N95 is bulky, the W910i is light and slim—it also has the "shake" controls and SenseMe technologies. The N95 is a more complete package, so we recommend that. The iPhone offers a great user experience, but the sound quality can't match the other two—especially on the bundled earphones.

CAMERA PHONES

Entry Level

Here, the Cybershot phones from Sony Ericsson are your best option. The SE K550i is a superb entry level camera phone, which also has a good music player and FM radio. The trusted K750i is still a worthy phone here. The Nokia N70 also has a comparable camera, but it's an old phone and not everyone might like to own it.

Mid-range

The Sony Ericsson K810i is an excellent 3.2 megapixel camera phone, and at Rs 15,000, is quite a package. The K790i—the first 3.2 megapixel phone in the market—is now available for Rs 11,000, and makes for terrific value. Nokia fans can get similar camera quality in the Nokia N73 and N73 ME. The camera on the XpressMusic Nokia 5160 is also in the same league.

Top Of The Line

The Nokia N95 and N82 have 5 megapixel cameras, and they deliver crisp photographs in all conditions—with a few tweaks in settings. Both have extensive in-camera controls, and also offer a TV out cable. If the N95 is too expensive for you, go for the N82. The Sony Ericsson K850i delivers good photographs, but there are few issues—photographs tend to under-expose when the flash is used; hopefully, a firmware upgrade will fix this.

BUSINESS PHONES

Entry Level

The Nokia E51. Nothing beats this newcomer—3G, WiFi, Bluetooth, IR, USB—you're always connected in every possible way. A good screen, decent multimedia features and a sweet price of Rs 13,000 gives it an edge over every other phone in this category.

Mid-range

The ASUS P526, the Motorola Q, the ASUS M530w, the Nokia E61i and Sony Ericsson P1i are few of the better options here. Nokia's E61i has been our favourite. It is feature-laden, delivers good performance and is priced reasonably—it's still difficult for us to recommend something else. However, if you want a phone with a touchscreen, then the ASUS P526 and Sony Ericsson P1i are your best bets.

High-end

The Blackberry platform is hard to beat when it comes to core business-oriented features. The Curve 8300 and 8830 World Edition are the best, but if you care for better multimedia options, we suggest the Nokia E90—it's sturdy and powerful. The Blackberry Pearl 8120 is a great phone if you don't want to carry a bulky business phone. If you want more PDA features—and a touchscreen to boot—you should look at the ASUS P750.

PHONES TO FLAUNT

The Apple iPhone! No one has it, and that's good enough reason to buy it. That apart, the iPhone is a gadget in its own class, and will get you noticed wherever you go.

The Motorola RAZR V2 is the phone to have if you want something that's a little more, well, legal. The pearl-grey finish, large LCDs and intricate detailing makes the phone stand out from the crowd. The new RAZR is not all show—it has a lot of practical features and a completely revised user interface too. It's also much cheaper than the iPhone. The Blackberry Pearl 8120 is another classy-looking phone, but only for serious businessmen on the move. ■

sanket_naik@thinkdigit.com

External Portable Hard Drives**WD Passport Portable (Black)**

- Excellent performance, good value
- None in particular

Contact Champion Computers Pvt Ltd
Phone +91-11-26214751
Web site www.championindia.com
Price Rs 6,500

**Internal SATA Hard Drives****WD Caviar SE16 WD3200AAKS**

- Value for money, performance
- None in particular

Contact Champion Computers Pvt Ltd
Phone +91-11-26214751
Web site www.championindia.com
Price Rs 4,500

Internal DVD-Writers**Samsung SH-S203**

- Performance, inexpensive
- None in particular

Contact Samsung India Electronics Pvt Ltd
Phone +91-11-41511234
E-mail c.serrao@samsung.com
Price Rs 1,200

**Internal SATA Hard Drives****WD Caviar SE16 WD5000AAKS**

- Fast transfer speeds
- None in particular

Contact Champion Computers Pvt Ltd
Phone +91-11-26214751
Web site www.championindia.com
Price Rs 7,500

Digital Cameras (High-End)**Canon PowerShot A570 IS**

- Good overall performance
- Lacking in macro performance

Contact Canon India Pvt Ltd
Phone 1800-345-3366
E-mail info@canon.co.in
Price Rs 13,995

**Digital Cameras (High-End)****TECH-COM DSC-524X PLUS**

- Good features and performance
- Average macro performance

Contact Shree Sagarmatha Distributors Pvt. Ltd.
Phone +91-11-26428541
E-mail techcom@airtelbroadband.in
Price Rs 5,250

Graphics Cards (High-End)**Galaxy GF8800Ultra**

- Sheer performance
- Heats up
- Contact Technology and Gadgets
- Phone +91-22-23823331
- Web site www.technologyandgadgets.com
- Price Rs 35,000

**Graphics Cards (Mid-range)****ASUS EN8600GT**

- Well priced, fast
- None in particular
- Contact Asus Technology Pvt Ltd
- Phone +91-22-67668800
- Web site <http://in.asus.com>
- Price Rs 8,800



The best products tested so far in different hardware and software categories

Desktop PCs**Sahara 20CK16**

- Great performer
- Slightly bulky

Contact Sahara Computers & Electronics Ltd
Phone +91-120-4397777
E-mail info@saharacomputers.co.in
Price Rs 40,000

**AMD AM2 Motherboards****Gigabyte GA-MA69G-S3H**

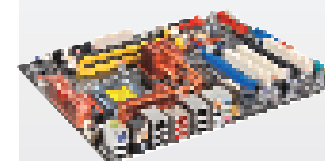
- Well built, feature rich
- None in particular

Contact Gigabyte Tech India Ltd
Phone +91-22-30616666
E-mail sales@gigabyte.in
Price Rs 6,900

Intel P35-based Motherboards**ASUS P5K Premium**

- Excellent enthusiast solution
- Expensive

Contact ASUS Technology Pvt Ltd
Phone +91-22-67668800
E-mail media_india@asus.com
Price Rs 15,870

**Intel Integrated Graphics Motherboards****Gigabyte GA-G33-DS3R**

- Very good layout
- Expensive

Contact Gigabyte Tech India Ltd
Phone +91-22-30616666
E-mail sales@gigabyte.in
Price Rs 9,500

Home Inkjet MFDs**Canon PIXMA MP160**

- Good performance
- No memory card reader

Contact Canon India Pvt Ltd
Phone 1800-345-3366
E-mail info@canon.co.in
Price Rs 5,995

Mono Laser MFDs**Brother MFC-7420**

- Great cost per page, fax
- No Ethernet Port

Contact Brother International India Pvt Ltd
Phone 1800-222-422
E-mail customer@brother.in
Price Rs 18,000

**PCI TV-Tuners****Leadtek Winfast PVR2000**

- Excellent video quality and software
- Expensive

Contact Topnotch Infotronics (India) Pvt Ltd
Phone +91-44-42042565
E-mail naqui@zebronics.net
Price Rs 5,500

**Mono Laser Printers****HP LaserJet 1020**

- Good combination of speed, print quality, and warranty
- A bit slow in comparison to others

Contact Hewlett-Packard India Sales Pvt Ltd
Phone +91-124-2566111
E-mail kakuni.mahto@hp.com
Price Rs 6,999

Wi-Fi Access Points**Linksys WAP54G**

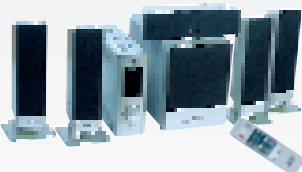
- Great performance
- None in particular

Contact Ingram Micro India Pvt Ltd
Phone +91-9323112279
E-mail sunil.z@ingrammicro.co.in
Price Rs 3,816

5.1 Speaker Sets**Artis S6600R/FM**

- Good performance, radio
- None in particular

Contact Kunhar Peripherals Pvt Ltd
Phone +91-22-66345758
E-mail mail@kunhar.com
Price Rs 8,500

**MP3 Players up to Rs 4,000****MobiBlu DAH-2100**

- Good performer
- Tiny screen for video

Contact J.J.Mehta & Sons
Phone +91-22-24306356
E-mail info@jjmehta.com
Price Rs 4,000

MP3 Players up to Rs 10,000**Sandisk Sansa e250**

- Good performance, feature-rich
- Tacky scroll wheel

Contact Rashi Peripherals Pvt Ltd
Phone +91-22-67090909
E-mail navinderc@rptechindia.com
Price Rs 8,150

**Processors****Intel QX6850 Core 2 Extreme**

- Extreme performance
- Expensive

Contact Intel Tech India Pvt Ltd
Phone +91-9833823474
E-mail saranya.rustagi@intel.com
Price Rs 52,000

Projectors**Acer PD726W**

- Great overall performance
- No remote sensor at rear

Contact Acer India Pvt Ltd
Phone +91-9880544226
E-mail alankar_s@acer.co.in
Price Rs 1,35,000

**LCD Monitors (19-inch)****AOC 1975**

- Good looks and performance
- Gloss finish catches smudges

Contact AOC India
Phone 1800-425-4318
E-mail info@in.aocmonitor.com
Price Rs 12,000

**LCD Monitors (17-inch)****AOC 177V**

- Good performance
- None in particular

Contact AOC India
Phone 1800-425-4318
E-mail info@in.aocmonitor.com
Price Rs 9,800

Multimedia Cell Phone**above 20,000****Nokia N95 8 GB**

- Great all round
- Little bulky

Contact Nokia India
Web site www.nokia.com
Price Rs 28,000

**Below Rs 12,500****Sony-Ericsson W910i**

- Great sound
- Flat and clumsy keypad

Contact Sony Ericsson Mobile Comm. India Pvt Ltd
Web site www.sonyericsson.com
Price Rs 19,000

Business Device**Nokia Communicator E90**

- Extremely powerful
- Heavy, bulky

Contact Nokia India
Web site www.nokia.com
Price Rs 40,499

**Value Executive Phone****Nokia E51**

- Loads of features
- None

Contact Nokia India
Web site www.nokia.com
Price Rs 13,000

Office Inkjet MFDs**HP Photosmart C4188 All-in-One**

- Good print quality
- No fax

Contact HP India Sales Pvt. Ltd.
Phone +91-124-2566111
E-mail kakuni.mahto@hp.com
Price Rs 7,999

PC Webcams**Logitech QuickCam IM**

- Strong performer
- Manual focus

Contact Compuage Infocom Ltd
Phone +91-22-65297356
E-mail india.getcreative@ctl.creative.com
Price Rs 1,995

**Mice****Logitech MX Revolution**

- Has a flywheel
- Expensive

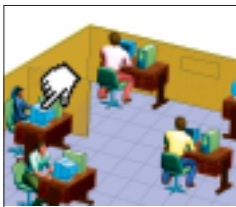
Contact Logitech Electronic India Pvt Ltd
Phone +91-22-26571160
E-mail response@logitech.com
Price Rs 8,000

Performance Laptops**HP DV6226tx**

- Funky Looker, features
- Needs better graphics

Contact Hewlett-Packard India
Phone +91-124-2838700
E-mail tapoti-t.tipnis@hp.com
Price Rs 56,990





98 @ The Office



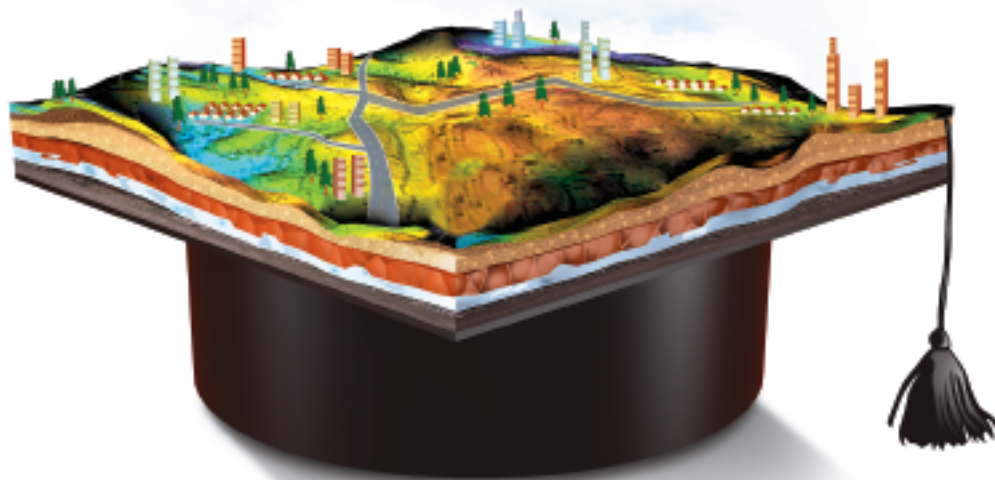
102 Biometrics for Security



104 Number Game

Digital Business

How Technology Can Help Your Organisation



Tech Careers

Mapping A Future

Fascinated by technologies like GPS? Here's how to make it a career!

Samir Makwana

It's important to know where you are in the world; this is why we have Global Positioning Satellite (GPS) even entering our daily lives—the latest high-end mobile phones, cameras and who knows what else. Industries like logistics have depended on it to get to their destination on time. But where does all the information on your GPS device come from?

GPS is part of a much larger umbrella called Geographical Information Systems (GIS). By definition, Geographical Information Systems are computer-based tools and technologies used to collect, convert, analyse, model, produce and demonstrate spatial information. Simply put, it's all the information from your geography textbook put into a database. Today GIS is used in natural resource management, environmental planning, disaster management, defence, transport and logistics, urban development, public utilities works, and business applications where you need to know the geography of the area.

I'm Special

Let's start with what you can specialise in:
GPS: Global Positioning Satellite systems do just

that—use a satellite to tell you your position on the Earth. This is easily the most widely used GIS, and is a great enabler for many more.

Remote Sensing: Remote sensing is the science of obtaining information about locations on Earth—its natural resources, for example—without physically going to the location. The Earth's surface is scanned by using the sensors on satellites, and can then be analysed using electromagnetic radiation.

Photogrammetry: Photogrammetry is the technique of creating 2D or 3D models, images, maps or scale drawings of a region, based on photographs. Put simpler, it's the technique of telling how high a mountain is by clicking a couple of pictures from different angles and making a few calculations. The art is incredibly old; today, Microsoft's PhotoSynth represents its future.

Spatial Image Processing And Analysis: Spatial means 'pertaining to space'. Digital images from satellites are analysed to create data structures, and then analysed mathematically. This also involves conversion (from analogue to digital and so on), enhancement, display and finally drawing information from those images.

Projection System: The method of transforming real-life surfaces to two-dimensional maps is called a Projection System. This process requires

Universities Offering Courses In GIS And Related Areas		
❏ Institute of Remote Sensing-Anna Univ.	❏ Dept. of Geography-Univ. of Madras	
❏ Faculty of Science-Banaras Hindu Univ.	❏ Dept. of Space Sciences-Pune Univ.	
❏ Indian Institute of Remote Sensing (National Remote Sensing Agency)	❏ Dept. of Earth Sciences-Roorkee Univ.	
❏ Dept. of Applied Sciences,Environmental Science and Engineering Group/Dept. of Remote Sensing-Birla Institute of Technology	❏ Dept. of Geography-Gujarat University	
❏ The Centre for Environmental Planning and Technology (CEPT)-Ahmedabad	❏ Dept. of Geography-Jamia Millia Islamia	
❏ GIS Institute, Noida	❏ School of Environmental Sciences-Jawaharlal Nehru University	
❏ Centre of studies in Resources Engineering/Dept. of Earth Sciences-IIT Mumbai	❏ National Bureau of Soil Survey and Land use Planning, Nagpur	
❏ Dept. of Civil Engg-IIT Kanpur	❏ Space Application Center, Ahmedabad	
❏ Centre for Atmospheric and Oceanic Sciences-Indian Institute of Science	❏ Geological Survey of India Training Institute, Hyderabad	
❏ Indian School of Mines Dhanbad	❏ NBSS & LUP, Nagpur	
❏ Dept. of Environmental Science-Pune Univ.	❏ Survey Training Institute, Hyderabad	
❏ National Remote Sensing Agency	❏ Centre of Studies in Resource Engineering, Mumbai	
	❏ Dept. of Geography-Utkal Univ.	
	❏ Regional Remote Sensing Service Centres at Kharagpur, Nagpur, Dehradun, Jodhpur, Bangalore	

lot of accuracy—the Earth is round, maps are flat. Moreover, the special features of the area under consideration also come into play.

Employment opportunities range from organisations developing GIS software solutions, companies providing GIS services, and different departments with the Government.

The Situation

A typical GIS project would be something like developing roads in a village to connect it to the nearest town. There’s a lot of work involved, and there are many roles that need playing:

❏ **Data builders**, well, collect data about the area—temperature, soil quality and other geographical information. This data comes from photographs of the location and images taken by remote sensing, and then compiled into maps, tables and figures.

❏ **Digitisers** convert all that data to a digital format, which can then be used in software and databases.

❏ **GIS Developers** use GIS software applications to model the area based on the data, and customise it based on the needs of the project.

❏ **GIS Analysts** use the GIS data and the original data to check for possible challenges in the project and develop a plan for its execution.

Points To Ponder	
GIS is a growing industry, and there are initiatives that need to be taken to increase its popularity and fill the employment void.	companies also look to the government for geospatial data”, says Mehta.
“Along with awareness about GIS as mainstream and upcoming career, there is need to develop and follow a uniform academic curriculum at the university level. Increased support from Government for using GIS in all its departments for generating trained work force is expected, since GIS	There is also a need for including GIS-related topics at the secondary school level itself. “GIS and related subject courses are rarely available at the undergraduate level in India”, notes Saha. Though many private institutes offer courses in GIS and related areas, the cost of training at these institutes is much higher compared to universities.

❏ **The GIS Manager** is in charge of the overall planning, control and management of all activities—from data collection to data analysis.

“The beauty GIS as a career is that it absorbs enthusiasts with both core and non-core GIS skills. Individuals can be recruited by organisations that create GIS products, or those who use these products and offer GIS services. However, for any industry, the main problem lies in creating the data related to our country’s demography, geography and infrastructure—this isn’t tailor-made and thus needs lot of effort to build”, says Manideep Saha, Head-Infrastructure for India and SAARC Region, Autodesk.

Though GIS a multidisciplinary career, work experience and knowledge at different levels can be categorised under:

Digitisers / Executives / Operators: Fresh graduates from an IT background, with strong fundamental knowledge of GIS / CAD software, hardware like GIS Servers and geographical are expected for such a role. The job profile involves tasks like geo-spatial database editing and processing, Computer-aided Mapping and drafting by creating 2D and 3D environments, quality checks and analysis of existing databases and creating analytical presentations from spatial data available in figures and tables.

“A strong fundamental understanding of databases and database relations is necessary. It is necessary to know how to structure queries and execute them with an eye for detail, accuracy and quality. In data, each element is unique and needs special attention, whereas in programming, once you write a program everything comes out correct”, informs Rohan Verma, founder and head of MapMy India.com.

Those interested in working on the GIS software development are required to learn programming languages like C, C++, C#, ADO.NET and Java, while those looking to work on the Web development side should know scripting languages (both server-side and client-side) like JavaScript, AJAX, ASP, PHP and Perl.

“The major tasks for beginners in Web Development involve using JavaScript (AJAX in particular) and interfacing with APIs such as Google Maps, Yahoo Maps, and other services”, says Kaushal Gala, ex-GIS Web Developer currently working at Dell Inc. in the US.

At the beginner level, you can get to know the work cycle of GIS projects, and generally get exposed to the industry. You can super-specialise in a particular domain by working with organisations that offer GIS services in that area. After working for about two to three years, you advance to the level of Engineer / Technician.

Engineers / Technicians / Developers: Developers are expected to design and develop applications using GIS software engines and GIS servers to meet project requirements. These applications function with the database of the digitised files at the back end. Engineers and Technicians are required to keep the database servers in sync with the GIS

applications being developed.

At this stage, they’re expected to acquire comprehensive knowledge and experience of the usage as well as development of GIS software and tools.

Analysts: These are professionals who have strong fundamentals of mapping, are excellent with GIS applications, and have had some work experience as developers or technicians with GIS projects. Their job involves the study and analysis of GIS projects, and where necessary, suggest tools to meet the project’s requirements. GIS Analysts with enough experience can also choose to be independent consultants.

Project Co-ordinator/ Manager: After managing GIS projects for about five or more years, one can expect to be at the position of a GIS Project Co-ordinator/ GIS Manager. In GIS services providers, project managers play crucial role in getting more business. Usually, professionals stay at this position for 5-8 years but in exceptional cases, they manage to jump directly to the top level before that period.

Administrative Positions: Administrative positions like Business Development Manager involve interacting with clients, and bringing in more projects for the organisation. Their roles bend more towards the management side, but knowledge of GIS technologies and market trends—both domestic and international—is crucial.

Verma echoes, “New technologies are constantly coming, and this is a fast evolving field, requiring candidates to stay abreast with the latest happenings—they must take the initiative to stay up to speed if they want to keep growing at the pace of the industry.”

System Requirements

Careers in GIS start with a passion for geography—ideally cultivated in school.

“Graduates from myriad fields such as civil engineering, geology, zoology, geo-technology, geo-informatics, botany, statistics, economics, commerce and business, geography including cartography, remote sensing, environmental science and sociology are eligible pursue career in GIS”, says Mandar Mehta, CEO and founder of Datapoint Computer Services, which offers Engineering Services Outsourcing, KPO, BPO, ERP, Project Management, Digitization/CAD, GIS and e-Governance services.

Interested students from Computer Science and Engineering, Programming, Civil Engineering, CAD / CAM professionals, database systems specialists and Web technology specialists find their place in GIS software and Web development.

Payday		
Designation	Salary Per Annum (INR)	Experience (Years)
Administrative Positions	10 lakh and above	8–10
Project Lead/Project Manager	8–10 lakh	6–7
Analysts	6.4–8 lakh	3–5
Senior Designer	4 -6 lakh	1–3
Digitizers/Executives/Operators	1.2–3.2 lakh	-



“Data conversion is the core business area currently with lot of opportunities arise due it’s applications in multiple business domains.”

Manideep Saha
Head-Infrastructure for India-SAARC region, Autodesk

Courses

In India, there are a number of courses that you can opt for: a B.Sc. / M.Sc. in GIS or Remote Sensing, an M. Tech in GIS or Geo-informatics, and so on. At the Master’s level, students can choose electives to specialise their education. In addition, to several short-term courses like diplomas and certifications are also available. Many institutes—both Indian and international—even offer distance learning, some online. Do remember to thoroughly evaluate your university if you’re pursuing an online education.

Even government institutions and organisations like the Indian Space Research Organisation (ISRO), the Geological Survey of India, the Space Application Centre at Ahmedabad, the National Remote Sensing Agency (NRSA), and the Survey Training Institute at Hyderabad and offer short- and long-term courses, and also conduct workshops frequently for an affordable fee.

Internships

One of the most important and exciting parts of a career in GIS is the internship—real-world experience is a must. GIS employers are always looking for cheap labour for low- and assistant-level GIS tasks like data conversion. On the GIS software development side, interns could be given module programming, GIS software engine programming and documentation, or even trained as research and development assistants for GIS software. Students with internships with GIS companies obviously get preference over others, but having no experience is *not* a demerit. Companies are always open to employ interns, given the current dearth of a skilled workforce.

The Future

“Today, the structure and uniform spatial information about different regions of India isn’t readily available as data sets with the Government, but this indicates immediate opportunities in the data conversion business, and also multiple opportunities in its application in several domains,” says Mehta.

Though the pace of the GIS industry growth is slow right now, there is a great demand for skilled GIS professionals—not only for Government, but also for commercial businesses. Kapil Sibal, the Union Minister for Science and Technology, at the Map World Forum in January 2007, mentioned that the Indian GIS market is expected to shoot beyond the \$1 billion mark by 2012. The estimated data conversion services exports were \$100 million in 2007, and are expected to achieve \$500 million in the next five years. The global geospatial industry growth rate ranged between 12 to 15 per cent annually.

Verma anticipates, “The future prospects of the Indian GIS industry are huge, because of the upcoming demand for premium quality digital maps and consumer navigation services. There will be demand at all levels of the value chain—from collecting GIS data in the field accurately, quickly and smartly, to compiling and processing that to create digital navigable maps, building products and services—both for consumers and enterprises—on top of the maps.”

samir_makwana@thinkdigit.com

Forget about running your business with the phone and personal meetings—here's all the information you need to set up a site that'll take a load off you

Nimish Chandiramani

It's a daunting proposition to develop a Web site for a home business, especially while you're juggling between all sorts of tasks to keep the business up and running. Thankfully, you now have a choice of many free tools to help you do just that—but it's not that simple. Many of these tools are built with personal sites in mind, so choosing what's right for you requires a discerning eye.

But we're getting ahead of ourselves. The first (and possibly the most important) part of setting up a new Web site is choosing a good Web host.

The Ground Up

Choosing a Web host isn't easy—you've got all those colourful proclamations of unlimited storage space and bandwidth to sift through, and the catches (there's always one) are pretty tough to pin down. Your best bet is to get plenty of reviews from people who've been using these services, preferably someone you know personally. In any case, don't cough up till you've visited the WebHosting Talk forums (www.webhostingtalk.com) and checked out what people have to say about the host you're about to

choose. Refer to the box *What you need, What it is* for what to look for when you're out Web host-hunting.

Then there's the question of *where* to host your site—India or abroad? In India, the physical proximity helps—users will be routed through fewer servers before hitting your site, so they'll get better access speeds. If you're going to cater primarily to Indian customers, we'd have unhesitatingly recommended hosting your site in India. Unfortunately, there are caveats: Web hosting here is still in its nascent stages, and the odd infrastructure issue can crop up from time to time. There's also the fact that the prices here seem criminal compared to hosts in the US. This is, of course, bound to change, but it's a chicken-and-egg situation—more people need to buy hosting for prices to fall, and vice-versa. For now, you'll get much better deals with a US host like GoDaddy (www.godaddy.com) or HostGator (www.hostgator.com). For a whole lot of features—unlimited sub-domains, unlimited e-mail addresses and such (at a price, of course)—visit A Small Orange (www.asmallorange.com) or SoftLayer (www.softlayer.com). The prices are significantly higher, but you pay that price for much better reliability and service.

So you've chosen a host and are ready to register your domain name, but to your frustration find that not only is your domain of choice taken, it's taken by a squatter...

Get It Back

Cybersquatting is just what it sounds like—parking your virtual behind on a spot that should belong to someone else, and then demanding a ransom to let it go. Depending on

the URL, you might well end up in a situation where your visitor ends up at the squatter's site instead of yours. In extreme cases, you might end up in the same situation that the White House did not too long ago—the domain www.whitehouse.com was taken over by a squatter with pornographic links all over, so people who thought they were visiting the White House home page (www.whitehouse.gov) came away with a nasty shock. Court battles ensued, and today, www.whitehouse.com goes to a real Web site.

Cybersquatting is illegal, and while some are content to just choose another URL, you should file a complaint with the Asian Domain Name Dispute Resolution Centre [ADNDRC] (www.adndrc.org) to get your URL freed. The site can be daunting with all the legal jargon, though. If you don't want to do much dirty work, hire a third party like DNRecover (www.dnrecover.com). Just fill up their form and they'll give you a cost estimate in 24 hours; once you give them the go-ahead, they'll do the footwork for you, and when your domain is finally freed, you pay.

Host? Check. Domain? Check. Now it's time for content.

Choices, Choices

If you don't want to pay an overpriced Web design firm to design your site for you, don't: there are plenty of (perhaps even too many) open source CMSes for you to choose from. From our own experiences and the sheer number of new sites that are adopting them, we can tell you that you don't need to look beyond Joomla (www.joomla.org) and Drupal (www.drupal.org). Both are quite easy to administer, though if you don't have geeky leanings, you might find yourself more comfortable with Joomla's graphical control panel. Both are tremendously customisable, and you'll also have a wide choice of extensions you can install for even more functionality.

Joomla has another edge over Drupal in that it supports advertisement management right out of the box. You can create clients, associate ad banners with them and tell the system how many impressions the client has purchased for that particular banner. When you're managing banners, you can also get data on how many times the ad was clicked. You can get all this in Drupal too, but only after installing the Advertisement module.

Drupal's categorisation—called Taxonomy—takes a little while to understand; at the most basic level, it lets you put content under multiple categories, so you can file an item under "Job" and "Mumbai" at the same time. Joomla, however, supports this only after you install an extension.

Finally, there are more themes—both free and paid—available for Joomla. This shouldn't make too much of a difference, since the option to hire a freelancer to design a theme according to your specifications is always open. Overall, if you're maintaining your site yourself, pick Joomla for its straightforward approach.

Google To The Rescue

One of Google's more interesting projects in recent times is Google Apps for Your Domain. It lets you, in short, use Google services like Gmail, Calendar and so on with your domain. So when

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What You Need, What It Is

Storage Space: If you're building a site that's mostly text, even a 500 MB hosting plan will do. For many hosts, the average is around 5 GB, which is quite ample.

Bandwidth: This is the amount of data transfer allowed to and from your site. If someone downloads a 400 KB image from your site, for example, you've used up 400 KB of your bandwidth. You'll usually be well under your bandwidth limit (mostly around 25 GB or so) in your site's early days.

Content Platform: The language that your site's content is written in. PHP is standard for a CMS, so hosts that don't support it should be crossed off your list. You might have to pay extra for Ruby on Rails support—the platform has started to gain a lot of attention. It's not as hassle-free as PHP, though.

Databases: Where PHP is standard for content, MySQL is the standard for

databases. Look for a host that offers at least five free MySQL databases with their plan. Beware of some Indian hosts: their plans might look attractive, but you'll have to cough up extra for each new database.

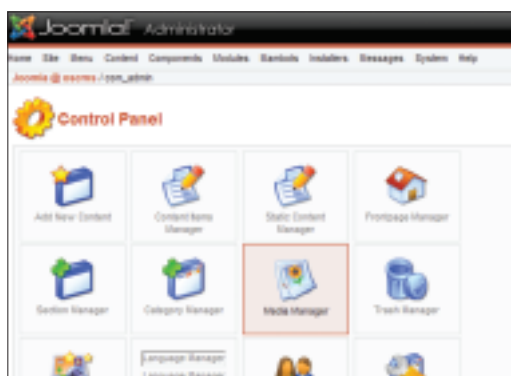
Overselling: One of the universal truths of hosting: just like hotels overbook rooms and airlines overbook flights hoping that someone will decide not to show up, Web hosts sell you storage space and bandwidth hoping that you won't use it all up. They might sell 5 GB of space to ten people, but host all those sites on a 20 GB hard drive. It's a relatively safe bet—for a small business site, even 500 MB is a lot, so no upper limits might be hit. Just remember that *everybody* oversells—that's how they get their plans to look so attractive.

cPanel: This is a site administration control panel that's filled to the gills with features, and is very easy to use.

Among other things, it features Fantastico, an installation script that automates the installation of a variety of CMSes.

Load Balancing: This is a feature of more expensive hosting plans: your site is hosted on two different servers, so visitors are intelligently directed to the one that has less load. In addition, if your site has to be updated, it's done one server at a time, so the site itself is never down.

Shared Hosting: Like the term implies, this means that your site won't be the only one hosted on the server. This is your best choice in the beginning, when your site isn't getting bombarded with traffic. Once visitors to the site increase—or if you face performance hassles—you can consider moving to dedicated hosting, where you'll be the only site on a particular server (naturally, this is more expensive).



Joomla's (top) graphical administration is easier to get used to than Drupal's (above) minimalistic approach

people sign up for e-mail on your site, they'll see the familiar Gmail interface (complete with the counter that shows them how big their inbox is getting), but they'll have an address that ends with @yourdomain.com. You'll also get all the other natural goodness that Gmail offers—rugged spam protection, IMAP access

and integration with Google Calendar. If you pay for the Premier Edition (\$50 per account per year, with 25 GB storage for each), you even get a 99.9 per cent uptime guarantee and 24-hour support.

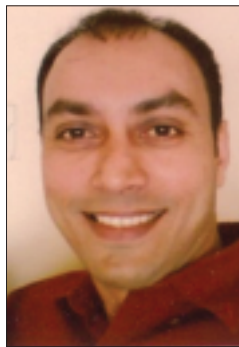
If visitors need to know your schedule for upcoming weeks or months, you can use Google Calendar to publish them. Thanks to configurable access restrictions, you can choose to show visitors only when you're free or busy, and hide the information about the actual event. If you're working with someone who you can't meet with every day, Calendar becomes an invaluable collaboration tool as well. Also included in the package are Google Docs and Spreadsheets, though they'll be more useful to you and your team than to your visitors.

Some Random Wisdom

You can check out demos of Joomla and Drupal at OpenSourceCMS (www.opensourcecms.com) to see how they suit you, but we recommend actually downloading and setting it up on your PC using software like WAMP, which installs Apache, PHP and MySQL to your Windows PC, then uploading the lot. If you've chosen cPanel hosting, you don't even need to do that—just use Fantastico to install the CMS you want and start building your site. If you decide halfway through not to use it any more, you can uninstall it just as easily.

Finally, always get yourself a .com domain—nearly everyone uses the [Ctrl] + [Enter] combination when they enter URLs (thinkdigit + [Ctrl] + [Enter] takes you to www.thinkdigit.com in any browser, for instance), so if you get yourself, say, a .net domain, you're just making visitors type four characters extra, and nobody wants that. ■

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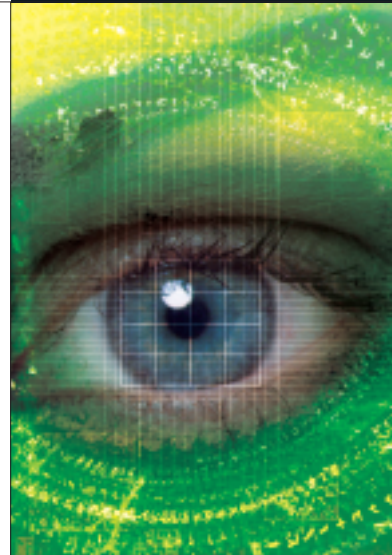


Jayesh Pancholi
CEO, Jet Pharma.

“We noticed that employees had unrestricted access to all areas of the company and we wanted to curtail this. We recently installed a protected access system, which not only provides access based on fingerprint analysis, but also does time tracking and payroll related work.

“With this system in place, we are now able to restrict employee access to only their workstations. Once you have the data for all the employees fed in, the system accurately records the time when an employee entered and left the office premises.

“We have noticed quite a few benefits since the system was installed, foremost amongst them being savings on stationary items. Apart from that, the ability to accurately track employee working hours and payroll is an added benefit.



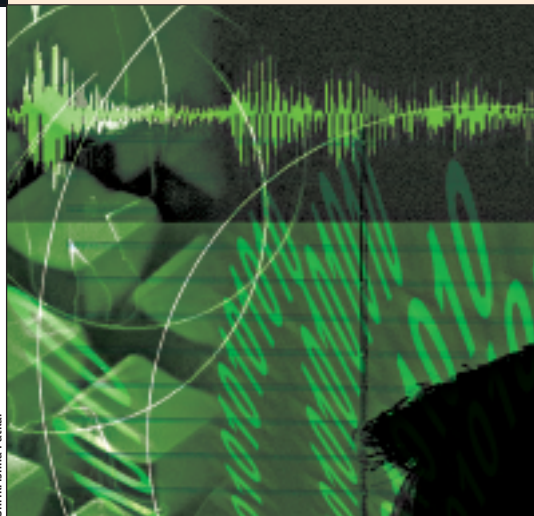
Manish Ved,
Manager,
Information Technology,
Bombay Hospital.

“Since installing this system, we have found reduced absenteeism amongst our Class IV employees, counter staff and technicians. We were also able to stop proxy punching of attendance cards. This has resulted in time saved, as we don’t have to physically verify the presence of our employees. Apart from this, the system is updated in real time so attendance records are always up to date with the most relevant information.

“We found that the two most important cost savings we made with this system were the man-hours saved and the reduced stationery expense since there are no punching cards or ledgers involved.”

BIOMETRICS FOR SECURITY

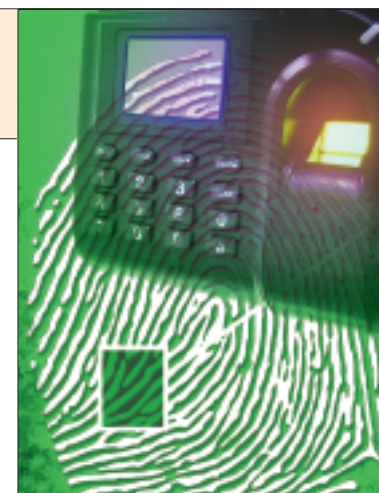
With a spate of companies employing Biometric tools to safeguard their businesses, we asked a few if it really made a difference.



Sachin Shah
CEO, Avadat Apparel Pvt. Ltd.

“We’ve installed a fingerprint access control system which also keeps employee time. This ensures that employee access to the office is compartmentalised while attendance records are kept up to date automatically.

“We have noticed that after installing this biometric system, we save approximately four man-hours every month on recording and maintaining the attendance records. Our efficiency is also improved since all data is available instantly. The fingerprint access control system ensures that bookkeeping is eliminated and access to important areas of factory such as the warehouse is restricted to only authorised personnel. The biometric scanners themselves are very efficient and work only when they detect a fingerprint pattern. This decreases battery and electrical consumption too.”



Bhavaniprasad Chaurasiya,
Deputy Manager-IT, Reliance Capital
Asset Management Limited.

“At our company, we have installed the ADF500 Biometric Reader, which allows us to secure the premises with various forms of security. Apart from being a fingerprint scanner, the device has a number pad, which allows you to assign numerical passwords. The system also works with RFID cards, which can be carried in-person to authorise access to any area of the company.

These systems have been more reliable in granting conditional access to employees than the earlier methods we adopted and personnel authorisation at entry and exit points is as good as personal verification. This system has helped us save cost on issuing new punch cards to all employees every month and reduced our expenses considerably. These biometric readers are installed in most of our offices, since they also provide up to date information on attendance and this helps us calculate payroll efficiently.”



Vinay C. Dhopavkar,
AGM-Human Resources,
Bombay Stock Exchange

“The Bombay Stock Exchange has installed the NAC2500 series of biometric fingerprint scanners for use in its premises. These installations are networked to a central server over LAN.

“Apart from securing our premises, these systems give us the ability to streamline the procedure of attendance, leave records, and allow us to retrieve this data immediately when required. We also rely on this system to generate various reports such as attendance, leave status and compensatory offs.

“Since its installation, we find that the system is able to provide very robust security measures apart from streamlining the attendance procedure. We have seen cost savings in terms of manpower, man-hours and stationery cost.”



Krishan Moorjani,
Asst. General Manager,
Datamatics Technologies Ltd.

“In the Business Process Outsourcing and Knowledge Process Outsourcing business, we have to use the latest technologies to help us save time, and the biometric scanners installed at all our facilities help us do so.

“The biometric installation at our premises is a multi-functional personal identification device that takes a three-dimensional scan of a person’s finger and compares it against a previously enrolled record. Security guards are immediately alerted to unmatched prints. The scanners are networked via our Intranet, and once a record is enrolled, it can be accessible across all our sites if needed. The biometric installation also allows for alternate methods of identification like entering a numerical password on the number pad or using an RFID-enabled security access card. The system allows us to create groups with different access levels, and users can be quickly added to those groups.

“Since the installation is networked via the intranet, employees can check their attendance stats themselves. Their attendance is automatically recorded in the main attendance database even if they log in from a different facility. The cost benefits with stationery expenses are hard to ignore too. Since its installation, we have found that there is a marked reduction in proxy punching and employee punctuality has increased.”

As told to Asfaq Tapia (asfaq_tapia@thinkdigit.com)



Suvomoy Sarkar
Head of Analytics
Info-edge

rate can also be measured as the percentage of people who visit only one page, or do not click on any links; this definition depends on the tool you are using. If the number is high, it means that something is seriously wrong with your site, and you need to fix it. For most Web sites, bounce rates between 20 and 35 per cent are acceptable, and rates higher than 50 per cent are worrisome. However, in case of blogs, high bounce rates may not indicate that something is rotten—most people visit a blog to read a single post, or check if there are updates.

■ Traffic sources: Traffic sources are the places from which visitors come to a site. Tools usually divide traffic sources for a Web site into four types—direct traffic (by keying in URLs), referring sites (other sites which have link to

■ Traffic sources: Traffic sources are the places from which visitors come to a site. Tools usually divide traffic sources for a Web site into four types—direct traffic (by keying in URLs), referring sites (other sites which have link to

Many leading corporates trust ESM KIOSK as their Visitor Management Solution...

Multi-Tenant buildings, corporate headquarters and IT Parks tend to have many visitors everyday. Though the employees are given an Access Control Card the visitors are asked to enter their details into a visitor register and issued generic visitor/gate passes. This not only creates a chaotic and confusing situation in the reception area but is also a security threat and does not go well with the corporate image.

ESM KIOSK is a complete system with a Webcam, Visitor Card Scanner, Signature Pad, Thumb Scanner, Printer etc., which helps in managing the visitors by giving them an elegant Photo ID pass in less than 10 seconds.

That's why many corporates like Microsoft India, Accenture, Deloitte, ITC, Reliance Infocomm, Ranbaxy Laboratories, Wockhard, Pfizer, Pathe, BSE, SBI, HBBC, HCC, Hirvansdani, Accendex, Kalpataru and many more have standardized on ESM KIOSK.

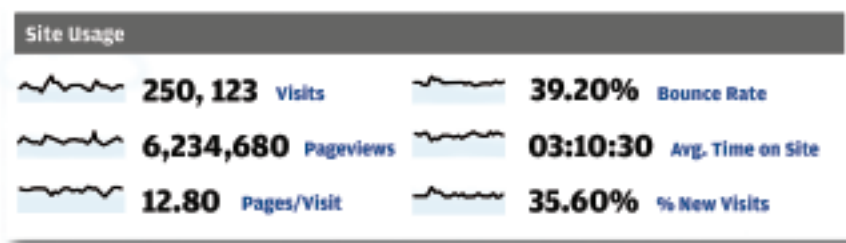
ESM KIOSK can also be used for issuing Temporary ID, Contractor badges, VIP Badges, Laptop Badges etc.



**Biometrics
Enabled!**



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Some of the many metrics in a typical analytics report

your Web site), search engines (visits coming from search engines) and Other (online campaigns, newsletters, etc).

Using This Data

Now that the definitions are out of the way, how do you use that data harvested from your tool for your advantage? From the data about page views, visits, pages per visit, bounce rate, average time on site and percentage new visits over a period of time, you can get a picture of whether your site is delivering the goods. For example, if your site has a total of 20 pages, and the pages per visit is something 5.6, this means that less than half of your site gets visited. In relation to this, you can make use of another statistic which indicates the number of visits per page. This combination will show you which sections of your site aren't giving you the desired results. With this information, you can now decide what corrective steps need to be taken. It might also mean that you need to tweak the site's design to make sure that the areas you want people to go to are easily accessible. Google Website Optimizer, a free tool which predicts the change of user data depending on design elements is very useful in this scenario.

This brings us to keywords and traffic sources. Face it: unless your site is very well known, most of your visits are going to come either through search engines or referrals from other sites. Web analytics tools show which keywords have generated the maximum number of visits—this is a very good indicator of what people expect from your site. Add this information to the traffic from other sites, and you have a fair idea of what your visitors come looking for. Accordingly, you have a number of strategies for improving the visibility of your site, starting from SEO and SEM (check out *Get Noticed, Get Clicked*, November 2007) as well as patronising your referral sites. Conversely, if you have invested considerably in a referral site and you find that very few visitors have come through that door, you can terminate the agreement before you spend too much. You might have also launched other Internet publicity campaigns like paid advertising and email newsletters -traffic source statistics are a great way to measure the effectiveness of your campaigns. No matter how insignificant these numbers are, they help provide an insight into customer behaviour.

Tools Of The Trade

Google Analytics, the analytics tool from Google is one of the most well known, and is



Answer the question why your Web site exists, then identify the two or three metrics that are critical to goal conversion."

Avinash Kaushik
Google Analytics Evangelist

widely used. It is suitable for small sites and is integrated with AdWords. However, the free account has certain limitations: it can be used only if your site has less than five million page views per month: if page views exceed five million then it has to be linked to an active AdWords account that has a minimum budget of \$1 (or equivalent). Another commonly used tool to track user statistics—especially on blogs—is StatCounter. This provides rudimentary data like number of visitors over a certain interval: nothing as detailed, or as intimidating as Google Analytics. Microsoft is launching its own analytics package called Gaineau (still in private beta), which will incorporate several new metrics like gender patterns as well. How exactly they plan on finding out visitors' genders, they aren't telling. If you don't mind shelling out the cash, you can use ClickTracks, WebTrends, Omniture, Mint or WebSitStory. All these come in different versions and have a wide range of uses. These tools are more suitable if you host your own site, or have a need of getting customised reports. Mint, for example, provides an installer which has to be downloaded and installed on the server.

At a basic level, the data generated by these tools is self explanatory, but to make sense of that data and make appropriate changes to your site, it takes a professional. Companies who maintain big Web sites have dedicated teams of analysts to monitor the latest trends of visitor behaviour, and help businesses target audiences better. Suvomoy Sarkar, Head of Analytics at Info-edge (which is in charge of Naukri.com's traffic analysis) feels that analysing the search histories of users can tell companies what customers are looking for, while also identifying the most important keywords you should optimise your site for, or the Ad-words you need to buy. "Web Analytics has impacted a many-fold increase in profit from our online marketing efforts, and nearly two-fold increment in the user experience for our search," says Sarkar.

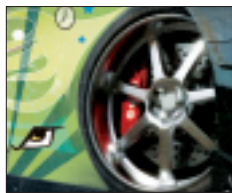
The Bottom Line

Though Web analytics seems to be a forbidden domain with an extremely high learning curve, it's not very difficult to apply some small insights to optimise a Web site. Avinash Kaushik, Google Analytics Evangelist and author of *Web Analytics: An Hour A Day*, opines that even without going deep into technicalities or bellyaching about low unique visitors or hits, there are plenty of things that can be fixed by a cursory look at an analytics report. "Look at the bounce rate for your [promotional] campaigns...and understand which of these campaigns stink. Or look at the bounce rates for your top entry pages.... you'll immediately know which pages are not even engaging enough to get your visitors to make one click." Fix the obvious, is the message, and we couldn't agree more with that. ■

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Digital Leisure

Technology Beyond Work

Lead Feature

The Stingy Gamer

...or, how I learned to stop spending and love my old rig



Nimish Chandiramani

We've got a Core 2 Duo rig with an NVIDIA 8800 Ultra and 4 GB of RAM for our game reviews, and we're quite happy with the situation. Then comes *Crysis*, which knocks the wind out of it with everything set to Very High. Suddenly, our world is plunged into darkness—we didn't spend all that time harassing the Powers That Be for a gaming rig only to find out that we'll have to settle for... ugh... lower settings. Do we go SLI? How do we explain the dunking of another Rs 30,000 (or thereabouts) to the Führ... er... boss?

That's beside the point, actually. While our professional lives are brightened by the ray of sunshine that is the corporate budget, most of us game at home on fairly modest machines—a mid-range AMD64 (Socket 939 at that), an 8600 GT and 2 GB of RAM. Yes, we are content, and yes, we still call ourselves gamers. Our secret? Nothing complicated, just the realisation of a few simple truths...

The Early Adopter's Caveat

This happens to us too often to laugh about—on day 1, we go out to our local electronics hub and blow a good portion of our salaries on an upgrade, and on day 3, prices plummet and we feel like complete asses. You don't realise it, but we can see you nodding your head.

Now consider the plight of someone who sprung for an NVIDIA 8800GTX back when it was Rs 40,000—the newly-released 8800GT is only slightly behind it in performance, but costs half that much. If you spend the same amount today, you can use two 8800GTs in SLI and elicit a performance that surpasses even the 8800Ultra! The situation is the same in the ATI camp.

Our point is this: early adopters adopt early mostly because they can, not because they need to—they are fully aware of the fact that prices are going to fall soon; they just don't care. With graphics cards today, jumping the gun comes at a price, so hang tight and buy a new card only when there's nothing you can do to improve your gaming experience, or till your old card goes poof.

Until then...

Ugly Is Beautiful

The most obvious—don't lose heart if you have to play games at lower settings on your current PC. A good case in point is *Crysis* itself—even

with all the effects turned down, it looks better than *Far Cry*, and that's not bad at all. Turns out we won't have to spring for that extra card after all—and even at home, we'll get ourselves some visual joy.

Then there are the times when we just *have* to turn on all the special effects. To offset that, the strategy that's worked beautifully—more on CRTs than LCDs—is to turn down the resolution, all the way down to 640 x 480 if need be (and if the game supports it, of course). In fact, if you turn down the resolution to 512 x 384, graphics even acquire an interlaced effect—reminiscent of cutscenes in old-school games.

Recent games won't let you go below 1024 x 768, unfortunately; but why must we always talk about the latest games, anyway?



Games like *Katamari Damacy* are still a big argument in favour PS2

They're Not Going Away

Just recently, this writer completed *Max Payne 1* and *2* on his modest rig—which, incidentally, runs the game at 1280 x 1024 (probably more, if it weren't for the monitor) with all the bells and whistles—and enjoyed it thoroughly. Today's hardware lets yesterday's games look *much* better than they did back then...

If you're upgrading now and don't have the budget for a high-end gaming machine, just invest in the best your budget gets you and take a trip back in time. Buy games that wouldn't have had a prayer on your older PC and play them—it's gameplay that makes a game enjoyable, so what was good then is still good now. The cherry on the cake is that these games are even cheaper now!

As for the latest lot, they'll still be there when you're ready for your next upgrade. For less money. If you wait for hardware prices to fall before buying, who's to say you can't wait for game prices to drop, too?

And then there are some things that you shouldn't even consider buying...

The "Professional" Gamer

One of the biggest ploys that budding gamers succumb to is the "Made for professional gamers" tag on products. "Well", they think, "if the professionals use it, maybe it'll help my game too!"

It won't—specifically in the gaming mice department. If you can't strike fear in the hearts of your opponents with a run-of-the-mill mouse, forget about being able to do so with a 5000-rupee mouse and a 2000-rupee mousepad (yes, you get those). Sure, gaming mice are more precise and you can't beat on-the-fly sensitivity adjustment, but nothing makes up for solid skill. The usual victors of our *Quake III* sessions are people who have some of the most awful mice in the office.

If you must get yourself a gaming mouse, get a Logitech MX518—it'll cost you around Rs 1,300, and it's a good mouse for general Windows productivity to boot. As for the mousepad, pick up one that's preferably got a fabric finish and is a single solid colour—it'll cost around Rs 20. To hack up your own gaming mousepad, check out our June 2007 issue.

But wait...

Consoul Curry

All this while, we've been talking about PC gaming—but the best way to save money as a gamer is to shift platforms altogether. The PS2 has been a viable gaming solution for nigh on ten years, so while we've been running to upgrade our PCs every time a new game comes out, PS2 owners have been pointing at us and laughing.

From the looks of it, the Xbox 360 and the PS3 do have the potential to last another ten years—games haven't even begun to fully exploit the hardware—but we wouldn't be surprised at a new console in five years, for marketing reasons if nothing else. Even so, you'll be paying only once in these five years, and the cost of a next-gen (or current-gen, now that they've been around a while) console is less than what you'd pay for a killer PC (not counting the cost of an HDTV, though). The games are a bit expensive, but the wait-for-prices-to-drop approach will work here too.

Even the PS2 still has plenty of steam, and if you're new to the platform, this is the best time to buy. You can get your hands on it for as little as Rs 7,000, and titles are finally going below the Rs 1,000 mark too. You'll have a huge collection of legendary games—the *God Of War* duo, the *Burnout* titles, and many more—to keep you busy for a long time, and new releases are lined up till July this year at the very least.

If you're a first-person shooter (FPS) or real-time strategy (RTS) fan, though, don't go the console way even in a moment of weakness—such games are best enjoyed with a keyboard and mouse.

Cheat Code

If all else fails—if you've already spent your life doing the same things we're telling you to do here and can't take it anymore, get those books out and brush up on your grammar. Then apply for a job here at *Digit* and start reviewing the latest games as soon as (and sometimes before) they release—that's what we did, anyway. ☐

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No Holds Barred

Technology now helps the visually-challenged hear things they can't see

Samir Makwana

Today, if you ask a visually-challenged person conversant with computers about Braille or Talking Libraries, don't be surprised if he says "They're so last decade!" Technology has broadened their horizons. What follows is about what it's like right now... what's happening in India, and what people are doing.

They Aren't Sitting Idle

Shanti Raghavan, founder and managing trustee, Enable India (a charitable trust that helps people with disabilities), avers, "Technology has proved to be a boon for visually-challenged people. It's due to technology that these individuals are now able to pursue education, entertainment, and, most importantly, employment, to make their lives better and more meaningful."

(The term "visually-challenged" refers to those who have entirely lost their sight as well as those with very poor vision.)

In 2002-03, Krishnakant Mane became India's first visually-challenged IT engineer. Inspired by friends with engineering backgrounds, he started off on GNU / Linux, and began promoting the *Free as in*

Freedom philosophy. Today, Mane is a free software developer, teacher, and activist who works with Dr Nagarjuna, computer head at Homi Bhabha Centre for Science Education, Mumbai. Mane is currently co-developing Orca, a free screen-reading software for GNU/Linux meant for the visually-challenged.

Jyotindra Mehta is known amongst his peers for his proficiency in IBM Mainframe technology. He currently works with IBM Global Services India as Advisory Software Engineer. Born blind, Mehta is India's first software programmer to have been awarded the Shell Helen Keller Award (in 2004) by the National Centre for Promotion of Employment of Disabled Persons.

Raghavan goes on to say—with no mention of names, though—"A shy group of three people with limited knowledge of the world are now working in the challenging field of medical transcription. It requires perfection—being very careful with spelling—which they mastered in the face of several challenges."

There are many other visually-challenged individuals who have learnt to earn their living with the help of technology. The dynamism of their talent has taken them beyond basic data entry work or writing code to software development and even troubleshooting.

Getting Them Up To Speed

Screen readers, text-to-speech software, and other things which we'll soon mention, are crucial aids: they enable differently-abled people to perform various tasks, by helping them learn how to use technology for education, their main occupation, and of course, entertainment. They are, in short, intended to make them independent.

In the last decade and a half, screen readers, screen magnifiers, text-to-speech software, and Optical Character Recognition (OCR) software has evolved to a great degree. These aids, along with text-to-speech software, audio / MP3 players, audio book readers, and more have fuelled the hunger for knowledge in visually-impaired people.

A number of cyber-café's, Government-supported training centres, and NGOs



imparting computer courses to visually-challenged people are functional across India. Resource centres at colleges, like Xavier's Resource Centre for the Visually Challenged (XRCVC) at Mumbai, managed by Dr Sam Taraporewala, imparts computer training to the visually impaired using various technological aids and state-of-the-art computers.

"Along with screen readers, screen magnifiers, and book players, we use other hardware-based aids like Mountbatten MB Pro (a talking / typing Braille), SARA (Scanning and Reading Appliance), Prisma (a CCTV-based device for low-vision users) and Zoom Ex (an instant photo scanner)," says Prashant Naik, Training and Development Officer, XRCVC. The Centre also serves as a test-bench for upcoming Web sites to check for accessibility features and software meant to help the visually-challenged cope with technology.

At these junctions, computer training courses are offered to make the visually-challenged conversant with basic packages like Microsoft Office and with the Internet. "Besides computer-centric training, we at Enable India provide training programmes that involve the development of communication skills in English, analytical skills, and error-proofing techniques to help the visually-challenged perform well even in difficult situations—that is, those where proper eyesight would be considered a must," says Raghavan.

We're now seeing several instances where the visually-challenged are employed for even challenging tasks. The IT industry has expressed tremendous interest in employing such individuals through NGOs like Enable India, as part of their social responsibility. Enable India provides, for the visually-challenged, workplace solutions involving job identification, system configuration, and troubleshooting.

The Next Step

Three major areas where development is taking place on a major scale in India in terms of software are:

- Indian-sounding text-to-speech synthesiser engines for screen readers,
- Tactile imaging embossers (embossers that convert images to embossed dots), and
- Screen readers for different browsers.

The Internet being the ocean of knowledge that it is, a majority of the developments in existing and upcoming software is taking place for better Web accessibility.

Loads of screen readers, as well as tools like Opera's voice-commands feature are available, but why aren't Indian citizens being made aware of them? Well, there is the accent problem with us Indians, and not every Web page is designed with a screen reader in mind.

Web pages scripted with different languages—for instance, AJAX carrying dynamic JavaScript—make it difficult for screen reader software like JAWS to cope. To combat the browser issue, Mane, with other global developers, is working on the Accessibility functions in the Firefox browser. He believes that Web

The IT industry has expressed the interest in employing visually challenged individuals through NGOs like Enable India

pages should be formatted using W3C-certified scripting languages.

The cheaper and affordable Indian-version screen reader called SAFA (Screen Access For All) is under development, led by Dipendra Manocha, director for IT and Services at the National Association for the Blind (NAB). Manocha also works as assistant project manager for DAISY for All-India, a project of the DAISY consortium; DAISY (Digital Accessible Information System) is an open standard used for developing tools such as digital talking books.

At XRCVC, e-Signs (banking software for the visually-challenged) is being tested and developed by CMC Ltd; it was conceptualised by the Centre. This software will help banks with thumb-print recognition reach an expected accuracy closer to 100 per cent for thumb-prints by the visually-challenged. Besides, the Centre recently tested an open source screen reader called AccessibilityWorks, developed by IBM, which works with Firefox on Linux.

On the open source front, at LinuxAsia 2007, Klaus Knopper with his wife Adriane (who is visu-



Krishnakant Mane talks to software developers and students, helping them understand what the visually challenged need from software

ally-impaired) announced the development of Adriane Knoppix, a free operating system (GNU/Linux) specially for the visually-challenged.

An IT student of Agra College recently developed E-Netra, a device using which the visually-challenged will hear the text they can't read; it's a gadget with a zoom lens and unique software.

Go Open Source

Mane reminds us that almost 80 per cent of Web servers run on GNU/Linux-based operating systems. IT giants and many big multinationals now use GNU/Linux-based OSes for their servers.

Now, though GNU/Linux-based OSes and programs are free, why is the common man still unaware of their benefits? Mane laments, "Free-of-cost programs are very costly, as the willingness to share is rare. If the government and people gain some awareness soon, they'll realise the benefits of viable and affordable open source systems over the costly proprietary ones that lack Indian speech synthesis and language support."

Tools Currently Used In India

Software and hardware aids widely used by various NGOs and Resource Centres

SCREEN READERS

JAWS: Job Access With Speech is a proprietary screen reading software that converts text to speech and reads it out at an adjustable place, with options for voice (male/female), tone, languages, and speech engines. www.freedomscientific.com/fs_products/software_jaws.asp

ORCA: An open source application for the visually challenged with many features, including a speech synthesiser; it supports Braille and also a text magnifier. <http://live.gnome.org/Orca>

Emacspeak: An open source text-to-speech interface meant for visually-challenged users as an enabler to browse the Web and use various programs without assistance. <http://emacspeak.sourceforge.net>

SAFA (Screen Access For All): A cheaper alternative to the JAWS screen reader, which uses an Indian-sounding synthesiser for the speech engine. <http://safo.sourceforge.net>

MOBILE PHONES

Mobilespeak: A screen reader application with Braille support for

Symbian Series 60 Edition cell phones. www.codefactory.es/en/products.asp?id=24

TALKS: A screen reader that supports 20 languages on Symbian Series 60 phones. www.nuance.com/talks

Call History: Software that allows visually-impaired users to hear a description of dialled, missed, and received calls, along with voice-prompt-based navigation. www.tinfomobile.com/Applications.html

SCREEN / TEXT MAGNIFIERS

MAGic: Screen magnification software with hotkeys different from those in Windows. www.freedomscientific.com/fs_products/software_magic.asp

ZoomText: A text magnifier and reading software for low-vision users. www.aisquared.com/index.cfm

TYPING

Talking Typing Teacher: Meant for novices as well as advanced users, this is a typing tutor with speech used for every function www.braillebookstore.com/talking-typing-teacher.htm

Braille: Duxbury's Braille Translator

Software that provides translation, formatting, and word-processing facilities to automate the process of working from regular text to Braille and vice-versa. www.duxburysystems.com/dbt.asp

WinBraille: A Braille editor meant for Index Braille embossers. www.indexbrailleaccessibility.com/downloads/winbraille.htm

Shree-Lipi Braille (Indian-language Braille translation software): Has support for Indian languages including Hindi, Marathi, Sanskrit, Gujarati, and others, with the main function of enabling translation of text to Braille. The file created can be used with a Braille embosser to print out content in Braille. www.modular-infotech.com/html/braille.html

PLAYBACK SOFTWARE

AMIS: (Adaptive Multimedia Information System) for the DAISY Book Reader
An open source book-reading software for talking books saved in the DAISY format, with support for South Asian languages.

This list represents software widely used in India; it is not exhaustive.



Mane himself is quite comfortable on his laptop

This idea has hit Kerala state. Today, over 80 IT resource centres provide training facilities to people in rural areas as well as to visually-challenged people on computers running open source OSes with the Orca screen reader installed for the benefit of the latter.

Future Expectations

Like J K Rowling wrote in *Harry Potter and the Order of the Phoenix*, "It is not our abilities but our

choices which make us what we are." Visually-challenged people are ready to take up the challenges of life—now with technology at their side. Many tech evangelists have predicted that the future of computing is mobile; usage patterns seem to indicate the truth of this.

Neha Trivedi, Project Officer, XRCVC, says, "In the near future, a multifunction portable gadget / device that can do nearly most functions will increase the flexibility of performing tasks like text-reading, scanning, and the use of speech technology almost anywhere. This could make the visually-challenged more independent."

Various aids, including software, audio players, and multifunctional gadgets do exist for the visually-challenged. But they're expensive for the most part, and quite unaffordable for most of those who need them.

You can help. Donate old working PCs to IT resource centres run by your state government, or trusts for the visually challenged, or at NGOs like Enable India and many more (take a look at the *Touched by Tech* section in our July 2007 issue). At the Talking Libraries and resource centres—like XRCVC in Mumbai—you can volunteer to scan printed material for conversion to audio-books. A lot of people will be happy. ■

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NEED FOR SPEED PRO STREET

Er... Street?

What, I must ask myself, do I expect in an NFS game? In the time following *Most Wanted*, my standards have risen considerably—I want the adrenaline rush of driving really, *really* fast, the safety of just-realistic-driving physics, and the sadistic joy of watching police cars crash. What I don't expect, however, is to be confounded. *NFS: ProStreet* is easily the most befuddling title of the lot—it leaves the territory of arcade racing to become a racing simulator, but not quite. I may have driven a Volkswagen Golf for only an hour in my life, but it didn't feel like the truck I'm made to drive in this game. Strike one.

ProStreet also goes back to good old track-based racing—while this would be good if the tracks were as wicked and wonderful as the older games in the series, they're really drab, and if you fell asleep driving them in the lower-end cars, we'd forgive you. There isn't even much to gawk at outside the tracks—all races take place in the middle of nowhere. Car damage is back too, so you'll have to drive (yuck) carefully. Strike two.

On the plus side, the game looks brilliant—especially the cars—and the presentation is very stylish. The short races

ensure that the five-minute breaks you take from work actually last five minutes, and if you turn on all the driver assists, you can get back some of that old *NFS* feel. Car customisation is fun too, and this time, even physical changes can affect your race aerodynamics, and hence performance.

Alone, *ProStreet* is a decent game—perhaps a seven or eight on ten, hence no strike three—but when you look at what's come out of EA's garage before, you'll be left cold, if not actually ticked off.

nimish_chandiramani@thinkdigit.com

Chaitanya Surpur

Rating: 5/10
(7/10 if you're new to the series)

Developer: EA Black Box
Publisher: Electronic Arts
Distributor: Excel Interactive
Contact: customercare@excelinteractive.co.in

digit GAMING PC

XFX GeForce 8800 Ultra,
Intel Core 2 Duo E6600,
4 GB DDR2 RAM, Windows Vista
Ultimate x64





Cartoon Capers

Team Fortress has returned riding on the Source engine for its second coming. It's a strictly multiplayer game where you can choose to play as one of 9 classes. Each class has its own strong and weak point. To give you an example for kind of chaos that goes on in game—the Heavy who is like the tank can be depended on to take the battering while he is healed by a Medic following him. Your Scouts and Soldiers can sneak and take out the opponents. There are flamethrowers and grenadiers that can help fend off incoming attacks. There are spies that can turn invisible and camouflage themselves into players of the opposite team. Snipers can be found picking out unsuspecting prey—weak medics and retreating heavy's from high sniping points.

Everything in the game has a cartoon theme to it. This means the graphics are very colourful and the maps and player models are one brilliant visual treat—much like you'd expect to see in Pixar movies. Each player type is a work of art—each with their own identity that comes out through their image and their voices. If there's something wrong with the game then, it's that there are only 6 maps but more will be coming out pretty soon.

Rating: 9/10
Developer: Valve Corporation
Publisher: Valve Corporation

The sound acting for each of the characters is just impressive and there are so many of the voice commands for the most joyful and painful of situations you may get into. There are different kinds of emotions and gestures that are shown by the models, depending on the situation.

The performance doesn't suffer a lot either in *Team Fortress*—if you could run *Half Life 2* on your rig, you can run this pretty nicely as well. Do remember that you'll need a better processor as you're going to see anywhere upto 32 players running about the place with all kinds of projectiles and particles flying everywhere—it is a chaotic game.

There are some 3 types of gameplay which are linked to the type of map—capture the flag, where you run straight into the team's base and grab their 'intelligence' and run back to your own. The Control point capturing map and territory capturing map are similar, and involve capturing important points in the map. The gameplay in all the maps is fresh and it will make you laugh your guts out. There's voice chat in-game, so you can plan out your rushes and ambush strategies with your teammates.

What is the scenario for us here in India? Well, there's a buzzing Indian *Team Fortress 2* community on Steam that's growing stronger by the day and a few Indian servers as well. More importantly there are many servers in the east—Singapore, Malaysia, Taiwan, etc. Ping times range between 100 and 150 ms to servers in

Asia, and even in Europe. There's the peace of mind knowing that Valve has brilliant Net-code in almost all their online games, so don't worry about not having single digit pings to servers.

There's no doubt that *Team Fortress 2* has to be one of the most innovative and most unique multiplayer games to come along in a long time. You can buy *Team Fortress 2* as a standalone game through Steam or you get it as a part of the *Orange Box*, which is the cheaper option. The price for the *Orange Box* is just Rs 999 for India—a lot cheaper than what you'd pay online (Rs. 2,100 or \$49.95). Let's put it this way, for a maximum price of Rs. 999, you get *Half Life 2*, *Episode 1* and *2*, *Portal* and *Team Fortress 2*, which by itself is worth the entire Rs. 999. Be warned though—many people have had problems with discs in the *Orange Box* here in India—they don't work, so be prepared to use backup plan of downloading the games through Steam. *Team Fortress* alone will take a day on a 256kbps connection but its well worth it.

We're giving *Team Fortress 2* a 9 out of 10 rating, and here's why: brilliant addictive gameplay, great maps (and more to come), great netcode, good numbers of servers to play on, cheap, and it makes you makes you wet your pants and your tummy explode when you're done laughing...isn't that reason enough?

rossi_fernandes@thinkdigit.com

8/10

Super Cricket: One Day Wonders

What Indian game maker can resist making cricket games? Mauj's *Super Cricket: One Day Wonders* makes for good company on long trips, and is surprisingly fun even if you're not a cricket fan.

The controls are simple and are workable with one hand: while batting, use different number keys to play different strokes, and play a little mini-game to place the ball while bowling. You can play a quick match, an ODI or a knockout, depending on how much time you have on your hands. You get to choose your country, but not your opponent. The latter would have been nice, even though it's inconsequential—the only difference between teams is the colour of their clothes. If you find yourself fumbling too much, you can sharpen your batting and / or bowling skills in the nets.

Good stuff, this, and gets our seal of approval. Just turn the music off—it's awful.



Site: www.Mauj.com
Price: Free
(plus service message costs)

Mobile Games

8/10

Prince Of Persia Classic

Confession: I've never played through the original Prince of Persia (PoP), and given the games available today, it's hardly likely that I'll ever play it on my PC again. This is, however, one for the phone. The name is self-explanatory: good old PoP, brought back to life in your pocket. The graphics have been updated to look better, but the game controls exactly as you'd remember it (or not, depending on your age). Your princess has been captured by the evil wizard Jaffar, who has given her an hour to either marry him or die. You must rescue the princess within this hour, or deal with the guilt of her blood on your clumsy hands. Theoretically, this means that the game is only an hour long, but it's quite unlikely you'll be finishing it in that time. The prisons are labyrinthine, and if you don't fall into a chasm eventually, you'll walk into spikes. Such is the prince's life. Whether you yearn for nostalgia or you want to see what the big deal was with PoP, this is one game worthy of your phone.



Site: www.gameloft.com
Price: \$4 (Rs 160)

9/10

Brain Challenge 2

Ever have one of those days when you're feeling unnaturally dumb? When even the most mundane tasks seem like mountains to your dulled brain? Now you can measure that dullness!

Brain Challenge 2 puts you through a bunch of challenges to see how sharp you are today—all mini-games that last a few seconds, at the end of which you get statistics like how much of your brain you're using, how much stress you're under and so on (we're suffering at 90 per cent stress right now, incidentally). It's perfect for when you want to take short breaks from work, and since your first score is usually shameful, it'll be a long while before you decide to stop competing with yourself. The result is (so the developers claim) that you end up stimulating your brain, which will lead to your overall well-being, or something to that effect.

Our verdict: *BC2* is easily one of the best mobile games we've played so far—the only thing that bothers us is that it gets hard if your screen is too small.



Site: www.gameloft.com
Price: \$4 (Rs 160)

6/10

Against All Odds

In *Against All Odds*, you play Malaika Rudeski—a female Indiana Jones—whose fascination for all things Egyptian leads her right into a pyramid with all sorts of cool ancient gadgetry. Obviously, she trips on something she shouldn't have, and unleashes the Pyramid's Curse.

This is your good old side-scrolling platform game, and isn't far from what you'd expect—walk around the pyramid, avoid obstacles and fight scorpions, mummies and other miscellaneous nasties. There are some parts that can get irritating, though. Ms. Rudeski is quite delicate, and dies from the shortest fall—which happens a lot, because as soon as you ascend a platform, there's usually a mummy waiting there to push her off.

Against All Odds isn't an outstanding game, but it's still better than sitting and doing nothing at all.



Site: www.mauj.com
Price: Free
(plus service message costs)

Think, Think!

1 What do Isaac Asimov's Three Laws of Robotics talk about?

- (a) The rate of increase of robots' computational powers
- (b) What factors will influence when they will overtake us
- (c) What they should and shouldn't do
- (d) What they might or might not do



2 USB 3.0 is beginning to appear. Compared to the 480 Mbps of the 2.0 iteration, what is the speed of the newer version?

- (a) 960 Mbps (b) 1100 Mbps
- (c) 4.7 Gbps (d) 9.4 Gbps

3 Think about .af (Afghanistan) domains. Which is true?

- (a) You can register them, but there aren't any .af sites!
- (b) We made this up! There's no Internet in Afghanistan!
- (c) You'll be able to register for a .af not before 2020!
- (d) The names are there, but even internet.af is available!

4 The longest legal domain names can be...

- (a) 127 characters, starting with a letter or numeral
- (b) 63 characters, starting with a letter or numeral
- (c) 64 characters, starting with a letter, numeral, hyphen, or underscore
- (d) Any number of characters as long as sets of 64 characters are separated by a hyphen

5 Which is not true about "YouPod" or "youPod"?

- (a) It's a social Web site (a .com)
- (b) It is Mac-related software
- (c) It's the nick of a 23-year-old single male in Wisconsin
- (d) It's a YouTube video that features an iPod

6 Which company recently shipped the "world's most capacious laptop hard drive," and what is the capacity?

- (a) Seagate, 1 TB
- (b) Western Digital, 750 GB
- (c) Maxtor, 1 TB (d) Hitachi, 500 GB

7 Which of the following is not in the list of first ten

registered dot com domain names?

- (a) Think.com
- (b) Xerox.com
- (c) HP.com
- (d) IBM.com

8 What did people in China Google most in 2007?

- (a) "QQ,"—according to Reuters, an "instant message service and a brand of car"
- (b) "speak english"
- (c) "USA visa"
- (d) "sex"

Did You Know?

Here's an interesting list. The United States, Canada, France, Finland, Denmark, Iceland, Norway, Sweden, The Netherlands, and Mexico were the first ten countries to have Internet connectivity.

Answers

8. D	4. B
7. A	3. D
6. D	2. C
5. D	1. C

Got an interesting question? Send it in with the answer to **TQ@thinkdigit.com** Mark "TQ" in the subject area.

Crossword

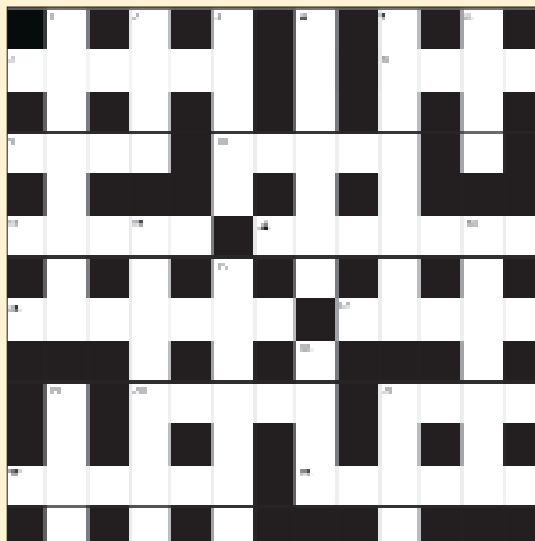
ACROSS

- 7. Using a web browser as the desktop interface in a client machine (6)
- 8. To quit a programme (4)
- 9. Advanced Mobile Phone Service(abbr) (4)
- 10. Signaling code of dots and dashes (5)
- 11. GNU Network Object Model Environment (abbr) (5)
- 13. Location of a web site (7)
- 16. Contributor to an online journal (7)
- 17. -----or free ware (5)
- 20. Delete (5)
- 21.-art—set of scanned images used for illustrations (4)
- 22. Search-----online programme to help users find information on the Internet (6)
- 23. Display area of a computer monitor (6)

DOWN

- 1. An input/output device that allows you to send commands to a computer (8)
- 2. Convergent Technologies Operating System(abbr) (4)
- 3. Unsolicited commercial e-mails (5)
- 4. To make a new version of a product (7)
- 5. Conduct a systematic investigation on the internet (8)
- 6. Round, read-only optical storage medium (4)
- 12.-effect-power to attract iron or steel objects (8)
- 14. 'S' in ISP (7)

- 15. Discounts offered on shopping sites (7)
- 18. Buttons on an input device attached to the monitor (4)
- 19. Type and style of text letters and characters seen in documents (4)
- 21. An essential function (4)



January's Winner
Yashodhara K
Mulki, Karnataka

Send in your entries to **TQ@thinkdigit.com** on or by 20th of this month. One lucky participant will win

Photoshop CS3 Bible

By Fuller & Fuller

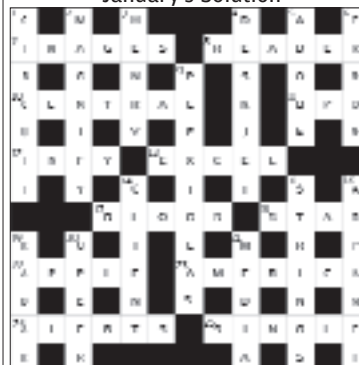
Published by

WILEY-INDIA

Win!



January's Solution



Crossword by Nitta Jaggi

Jailbook

If you are displeased about something it might not be a good idea to be frank about it, especially on Facebook. Four Lebanese university students found it out the hard way when they had to spend a week in the cooler for ridiculing the singing talents of a young lady.

facebook

Know Thy Phone

Do you need advice in understanding your phone, the way you do when selecting a wine. If you are in Japan, the answer is yes. Japanese handsets are getting so complicated that they are considering licenses for experts who will walk customers through their handset purchase. Phew!



Escape

MUSIC MANIA

Sharing Blues

We've been talking a lot about file sharing in these pages over the months, and regular readers following the script would know that RIAA, the recording industry body in US has been doggedly pursuing individuals who have uploaded, or downloaded pirated music. They've slapped court cases, won hefty fines and have generally gone about treating music fans like criminals—guilty until proven innocent. Readers will also recall that while RIAA swears it's doing all this dirty work for the benefit of musicians and artists, the supposedly affected parties have said that they are not happy with RIAA's tactics and prefer that music companies change their business model and adapt to the times.

Recently, the RIAA got another bloody nose in its ongoing slugfest with the Common Man, when two of its cases were shot down by

the courts. Both these are unrelated, but they serve to underscore the underhanded and often desperate tactics in this campaign. In the first case defendant Tanya Andersen, a disabled single mother had to face mafia-style tactics like invasion of privacy and attempts to clandestinely contact her eight-year-old daughter to dig up files-haring skeletons. After a long and two year wait, the concerned courts have dismissed the allegations of RIAA that Andersen was pirating gangsta rap on the P2P site KaZaA, and awarded her the hefty lawyer's dues. Additionally, it allowed a class action lawsuit filed by her to go through, which essentially means that anyone who was accused by RIAA of file-sharing can join the lawsuit and claim compensation.

Which we recommend the Howells to do. They have been accused of sharing music, again over

KaZaA. However, they have not been accused of uploading that particular file. In case you want to know how anyone could share something which was not uploaded, let us clear things up. RIAA—in its infinite wisdom—has decreed that even if a song is in a shared folder named, say, "For KaZaA", from where it could be theoretically shared this would consist of committing the heinous crime of music piracy. If you intend to illegally distribute music, you would be screwed: this is RIAA's view of the perfect world. The Electronic Frontier Foundation (EFF)—the privacy watchdog in the cyber world—has thrown its hat in the ring and has basically told the judge that RIAA is spouting bovine excreta. We hope the judge agrees, and the world remains imperfect. And while we are at it, we do hope the RIAA gets kicked where it hurts for their copyright Nazism.

Whatever Happened To...

Usenet

"Disusenet," it might be better called today. It's more probable that you haven't, but you might just have heard about Usenet, and thought it was an old-style bulletin board system (BBS) or possibly a Web site where people posted things on various topics. Actually, it's not a BBS (though it resembles one); it is not an organisation, nor a public utility, nor an academic network, nor is it a software. According to one Web site, Usenet is "the set of people who exchange articles tagged with one or more universally-recognised labels, called 'newsgroups'."

For more than 20 years, Usenet was considered the best way to read and post messages over the Internet. The network grew into thousands of discussion groups; topics ranged from Olive Ridley turtle conservation to scuba diving in the Thames.

So what's happened to Usenet? One is blogs: they're more user-friendly, and prettier. Second, the majority of Usenet newsgroups are now populated by un-read-worthy content, off-topic stuff, and spam. In 2005, AOL stopped access to Usenet.

Usenet is very old-style. A certain site about Usenet sternly tells you: "Furthermore, the people who run the news systems are called news administrators, not sysops. If you want to be understood, be accurate." Today, no-one has the time for (or can stand) this kind of uppity, censorious attitude.

DigiPick of the month

My t-shirt just hung!



Last month's winner:

Vaibhav Jayant Deshpande
Navi Mumbai

Participate and win next month:

The Essential Guide to User Interface Design

by Wilbert O. Galitz

Published by

WILEY-INDIA

WIN!

Send in your entry and you could win an exciting gift by sharing an amusing picture with a tech angle to it. The picture should have been shot by you, and should not have been published anywhere earlier. E-mail your picture with "DigiPick" in the subject line, mentioning your postal address, **on or before the 20th of this month** to digipick@thinkdigit.com. One prize-winning picture will be published each month.

JOB GONE

Blog roll

The annual Consumer Electronics Show (CES) at Las Vegas is where thousands of people from all over the world gather together to gawk at new consumer electronics products. We know that part. Products like huge 150-inch LCDs, sleek laptops, booming music players—about 20,000 products in all, on the brink of flooding the world's stores in the coming months. Naturally, the people who visit this Mecca of electronics are pumped up, salivating over the new electronics that are likely to replace the same products we bought a few months ago. All right, so we know that part too.

CES being what it is, companies try very hard to sell their products. They go to great lengths to tom-tom the fabulous features, give painstaking demonstrations and generally try to make everyone—especially the media—believe that their TV, MP3 player, or computer

is the best thing created this side of the wheel. And those slick salesmen do manage to achieve what they started out to do—in most cases. TV displays play an important role in this shock-and-awe campaign, and if in the middle of a fabulous presentation your display suddenly conks out, you would be mighty ticked. And if that happens not once, but multiple times without anything apparently wrong with the hardware, you would be justified in thinking a poltergeist was haunting your system.

You'd never think that a TV-B-Gone remote is behind these blackouts, though—nobody could be that immature. TV-B-Gones, incidentally, are used to shut off annoying TV screens when they're disturbing your meditations on the great mysteries of life. Okay, we made that up, but everyone agrees that idiot boxes can get very annoying sometimes. However, such a remote was never intended to black out screens in the middle of a product demonstration—but

no one told the bloggers at Gizmodo that. They went around merrily clicking their remotes and shutting down whole walls of displays, leaving the people in charge with a what-the-heck-happened expression on their faces. The cheeky bloggers also disrupted a Motorola presentation twice, leaving the presenter with an undoubtedly bad taste in the mouth. This was then posted on Gizmodo.com. And all hell broke loose.

Ironically, most of the brickbats came from other bloggers, not the corporate types. The blogging community has been fighting hard for passes that are usually given out to members of the fourth estate, and it's only recently that they have managed to get accreditation as "real" journalists. They fear that such antics from members of their tribe would endanger their reputation, and they would be barred from all future events. That, or face strip searches. The Gizmodo staffer who had his finger on the remote has already been banned for life

People Who Changed Computing

Talk!

His is one of those names you can't afford not to be familiar with: a multi-faceted "computer genius," Briton Donald Davies invented Packet Switching (we're hoping you aren't wondering what that is). In 1965, while at the UK's National Physical Laboratory, he saw (it wasn't obvious to everyone at the time) that computers would be more useful if they could talk to each other. He went on to develop a system that allowed machines to send "packets" of information backward and forward over public telecommunications networks. Small chunks were sent separately so as to minimise the risk of congestion. The ARPA in the US liked it so much that they straightaway incorporated it into the ARPANET—and Packet Switching remains the basis of the Internet.

After graduating from Imperial College London, Davies joined a small team led by Alan Turing (again, we're hoping you aren't wondering who that is!), which was developing computers. The group's work led to the Pilot ACE computer; it was one of the first few electronic stored-program digital computers in the world. Davies had done much of the detailed design and development of the machine, as well as that of its full-fledged successor.

Davies was one of the lucky few pioneers who saw his work come into full fruition: he died in 2000 when the Internet was up and running, so to speak.



Don Davies

Win!

My Desktop

No Winner!
Better luck next time!

Participate in this contest and win next month

3D Animation and Filmmaking using Game Engines

by Paul Marino

Published by

WILEY-INDIA



Send us your desktop with a description of how you made it to mydesktop@thinkdigit.com with the subject "My Desktop", and tell us your postal address, too.

Bluff

YOUR WAY THROUGH

Web 2.0 Technologies

Ah, so you've mastered the jargon, but how much can you spew about the *important* stuff? **AJAX:** This technology allows Webmasters to reload or process only specific sections of the Web page. This means that content on a page can be updated without the reloading the entire page.

Widget: A piece of code that allows you to add dynamic functionality to Web pages. For example, a status widget on your blog that lets readers know when you're online.

XML: The Extensible Markup Language allows Webmasters to define their own elements when creating a Web page. This allows for sharing of data across multiple sources linked together with the same element names on the Internet. **FOAF:** An acronym for Friend of a Friend, this is the structure used by social networking sites to describe people's profiles—name, country and how you are related to another person. Computers use these structures to find matching elements when running a search, like for users staying in Hyderabad.

XFN: The XHTML Friends Network is an attribute, which you can use in a blog or Web page to define a relationship when linking to another person. E.g.

Web APIs: These are interfaces for letting Web developers interact with other Web applications and allow them to extract and present data across Web pages on the Internet.

Usage

I use *XFN* on all my blog links. This is picked up by the *XML* elements in *FOAF* profiles of Social networking sites and that gives me a better search ranking on Google. I also use *AJAX* to run all the *Widgets* on my blog and I hope to learn the use of *Web APIs* soon.

Wild Wild Web

WikiTrash!

There's actually a *Wikipedia* page—http://en.wikipedia.org/wiki/Wikipedia:Unusual_articles—that lists out weird articles with links. Some are so weird, you'd wonder why Wikipedia doesn't edit them out; you could (and perhaps should) spend a lazy Sunday afternoon at this page, clicking the links.

So well, to convince you about that Sunday afternoon, here's a sampler (article name followed by description).

Pig War: A war between the United States and the British Empire that almost erupted over one dead pig.

Sisters of Perpetual Indulgence: An organization of

mostly gay men who dress as nuns, often on rollerskates.

Guilty not proven: A controversial Scots law verdict for those neither guilty nor innocent.

Vril: A belief that aliens controlled Nazi Germany and helped Hitler and others to escape to the South Pole when the war was lost.

The Significance Of Six

We swear on our paychecks the following was on a *real MIT Web page* a little while ago. The author now has it up on a Geocities page (www.geocities.com/tagonist/britneyanalysis/index.html), after complaints that the page was too frivolous for MIT, no doubt. Well, it's about

the lyrics in Britney Spears' songs, with commentary. Here's about the first stanza of *Oops*:
Yeah yeah yeah yeah yeah
Yeah yeah yeah yeah yeah
"Critical Analysis": "The 12 'yeah's set an affirmative tone for the rest of the song, which, as we shall see, actually sets up the pivotal irony, which is that the message of the song is actually one of negation and rejection. This ironic structure parallels the theme of the song in that its initial tone of acceptance and joy are actually false pretences, which will later be revealed as a miscommunication. The significance of the 12 is unclear; the 12 months, disciples, and signs of the zodiac are some theories."

from participating in future CES events, and it's likely that when it comes to handing out press passes, organisers wouldn't want to touch Gizmodo with a barge pole. Talk about shooting yourself in the foot.

LEGAL SPAM

Blind Justice

They say the law is an ass. Well, we do, anyway. While you normally don't expect courts to understand the technicalities of all the cases that come for decision, they are expected to follow some common sense while delivering the judgements. Or is it that common sense as defined by the law and common sense which is understood by us folks are two different things?

David Ritz was an anti-spam researcher who had suspicions that Sierra Corporate Designs, a Web hosting company was hosting spammers, or was actually involved in spamming. So what he did was routine: check the origin of the spam and attempt to trace it back. Several

commands were used for this tracing—all ordinary tools that your average system administrator would use in such a scenario. Among them were Unix commands like "host -l" which causes the execution of zone transfer. In plain English, this means accessing information that is stored on a DNS server for public viewing. When Sierra found out that Ritz was accessing this information which could be used against it, they filed a court case to prohibit Ritz to access this (publicly available!) information. And surprise, surprise, it won.

Most of the case documents have been sealed under court orders, but from what is available on the Net, it seems that the unfortunate Ritz was convicted and fined \$60,000 (Rs 24,00,000), because he performed the online analogy of looking up information available in a public document and using that information to nail a crime. Anyone would agree that this cannot be considered unauthorized access. Anyone with sense, anyway. What's giving



becomes outdated. Maybe there should be a special school for these judges. That would make such bloopers redundant.

WOOF

Dog Day

How do you know what your pug is thinking of when it is barking madly at you? Some ingenious gadget maker from Japan had made a similar device for cats, and we had predicted that similar things ought to be out for man's best friend. We knew we were good, but we didn't know we were this good. We also didn't realise that *Digit* had a readership in Hungary.

Okay, about that Hungarian readership statistics part—we made it up. But what we didn't make up is the human understanding dog part. Scientists at Budapest's ELTE University have designed software that figures out the emotional response of dogs to different situations. Fourteen canine volunteers were exposed to different

iGo

We never really expected it to happen. Ram—our innocent, spaced out, blissfully inebriated Ram—has quit smoking. We don't know what to make of this. Before, if we saw no Ram at his desk, we'd naturally assume he's in the smoking bay. Now, when we see no Ram at desk, we panic.

Not that it matters any more, though. You see, Ram has discovered that there's a Real World outside *Digit* (well, so they tell us) and by the time you read this, he'll have set out to see what's really out there. Maybe he'll meet a fire-breathing dragon, and maybe it'll light him a cigarette he won't smoke. We don't know. We will miss him, though, despite all the practise we've got from his frequent disappearances.

In other news, we had ourselves a late-night visit

Digit Diary

from someone rather special—or rather, someone attached to something rather special—the iPhone. Picture a room full of women around a baby—pinching, prodding, saying things like, "Aww, cho chweeeet!"—only replace the women with untidy male geeks, and the baby with the iPhone, and change the words to something more manly like, "The Force is strong in this one". That's what it was like.

Zivalal's bike got itself towed the other day, and this has made him rather jumpy—"Main Vashi nahin jayega!" (I won't go to Vashi!). You know how the office grapevine is—the story was twisted, and as of this writing, the women are worried he's some sort of sex offender (he's not).

Ah, well. Another month, another scandal...

situations guaranteed to pique their interest—getting a treat, playing with a ball, meeting a stranger, fighting with other dogs—situations that usually make dogs bark loud enough to wake the dead. In the present case, the dogs barked loud enough, and with sufficient emotion to make the code in the software perform function calls, execute loops, and check boundary conditions; basically go

through the motions which produce results.

This dog-deciphering software had a much better strike rate than human ears, as it could understand the cause of barks, yaps, howls and growls more accurately than humans could. The inventors acknowledge that they could do better, and the software is no where near perfect. A possible use of such

software is in human-dog interaction, though what could be the possible use of understanding whether the dog is ecstatic or simply happy escapes us. Maybe it would promote better understanding between *Homo sapiens* and *Canis lupus familiaris*—that is always laudable. Maybe it would enable an invention that would make dogs understand! Now that'd be a gizmo to buy.

Blog WATCH

Microsoft plans to discontinue sales of Windows XP from June 30, 2007 and there is already an online petition against this move. We track the blogosphere to follow the reactions.

Steve Bralovich

Save Windows XP Petition

<http://pdatoday.blogspot.com/2008/01/save-windows-xp-petition.html> (<http://tinyurl.com/35rk8k>)

Microsoft would like to end nearly all sales of Windows XP on June 30th of this year, in spite of hesitance by many businesses and individuals about moving to Vista. Such a pricey, time-consuming shift with questionable benefits should not be forced on Windows users, so InfoWorld has decided to rally XP users to demand that XP be kept available.

With 27 years of computer and tech experience, I never make a change of operating systems until I buy a new laptop or device. This assures me of the widest 3rd party software support and zero compatibility issues. Unless there's a compelling MUST HAVE reason, I stay away. This policy has served me well and I recommend that others do the same.

Jme Solivas

Law and ICT

<http://lawandict.blogspot.com/2008/01/xp-vs-vista-forcibly-replacing-old-with.html>

(<http://tinyurl.com/2f8rgf>)

...Personally, I'd choose Old School XP over New Age Vista any day. Vista is just too darn slow, complicated, and bug-ridden. For me, it boasts of alleged value-

added features, but which I find are not really user friendly. Simply, there are still a lot of bugs to be fixed. I'm all for change, but the change has got to be for the better...

Mary Jo Foley

ZDNet Blogs

<http://blogs.zdnet.com/microsoft/?p=1109&tag=nl.e622> (<http://tinyurl.com/2uwads>)

...There are a couple of problems here. First, Windows XP is not being 'discontinued' on June 30. Instead, as of that date—unless the software maker issues another reprieve like it did in September 2007—Microsoft will no longer make XP available to OEMs for preloading and/or via retail sales.

Microsoft isn't pulling the plug on XP support this year. Mainstream (free) support for XP from Microsoft ends in April 2009. Extended support (free for security fixes and paid for other help) ends in 2014.

Infoworld is advocating for Microsoft to continue to offer XP indefinitely. Fat chance. Why would Microsoft give customers more incentives not to upgrade to Vista—beyond the ones it has inadvertently provided by delivering a first-generation product that had driver and application compatibility issues; performance problems; and reliability glitches?



January 2008

International Flavours?

Don't you guys entertain mails from outside India? I have written several times to you and you haven't published my mails. I am from Nepal, and in our friends circle, I am the only one to read *Digit*—the others borrow from me. Thanks to you I have become the tech geek amongst my friends. They consult me for any problems they face, and I consult the magazine. The archives you gave in December have really helped in that regard. Please put more software for Linux on your DVDs. You guys do a great job.

Nitesh Rijal
Ranchi

Thanks for being a loyal reader, and yes we are planning to increase the Linux content in the DVDs, so keep an eye open for that.

Team Digit

A Faster Track

I bought *Digit* for the first time this month and I must say that the free *Fast Track* booklet was amazing. I have decided to buy *Digit* every month from now on, as long as you continue the *Fast Track* series. Is there some way in which I can buy all the previous *Fast Track* books?

A Nithianandam

Due to the popularity of the *Fast Track* series, we've received a lot of queries like yours. We'll look into finding a way that will allow you to get your hands on all the *Fast Track* books in one shot. Currently, however, we only provide PDF versions on a regular basis in the DVDs of special issues. In order to help us understand exactly how popular this feeling is, we request all readers who would like to purchase

something like a "*Fast Track Compendium*" to write to editor@thinkdigit.com and express their desire to do so.

Team Digit

A Sad Farewell

I thought that the magazine would improve with 9.9 media buying it... but it has not. The magazine contents are not that good: a review of only flash drives? I have got used to two sets of shootouts / reviews in each magazine, and I refuse to accept only one, even if you have the Zero1 Awards to print, which is just copy-pasting from previous reviews anyway.

Personally I feel the Zero1 Awards is a waste of pages. We buy the magazine the whole year anyway, so we already know what's good from the reviews, and the contenders in most of the sections of the Zero1 Awards were the previous tests runner-ups! Come on, you can do better than this. The Zero1 Awards should be a 2 or 3 page article—just name the winners and runner-ups with a little description.

Last but not least, the *Fast Track* was hopeless this month. Most of us already know all this stuff just by reading your magazine itself!

The first time I bought *Digit* in June 2001 it had in-depth reviews of firewalls, antivirus etc... It was much more technical... *Digit* is getting boring for me, and you have stepped down a level on the technical part to appeal to a broader audience. The number of pages and articles keep decreasing, and it's just 128 pages now! I won't complain about the Ads, because I know a magazine needs them to keep costs down, but don't decrease the number of pages and articles. Personally I buy the magazine for the articles and not for the stuff you give on the DVD, I can download those myself!

I am sorry to say, but I am switching to a different mag. In the end I would like to thank *Digit* for converting me into an open source and free software junkie, and moving me away from piracy. It was a nice journey, and I have been loyal to you for 7 years. My favourite article in *Digit* last year was the G80 vs R600. Give me more articles like that and I will buy *Digit* again.

Shashank Shekhar Katyayan
Ranchi

We understand the sentiment you have. However, we urge our readers to understand the rationale behind the Zero1 Awards. Let's look at this issue

of *Digit*, where we've tested cell phones and DVD writers. Now, in December 2008 or January 2009, when we announce our Zero1 Awards, for the "Best Product" award for these categories for 2008, is it fair to just give the award to the current test's winners? With technology changing almost overnight, it wouldn't be fair to either our readers or the manufacturers of cell phones and DVD writers now would it?

We know for a fact that if we awarded a product that is almost a year old with a Zero1 Award, and there was a more deserving product already available, passionate readers like you would not fail to remind us of our errors. Also, all of our tests involve telling you exactly why we choose one product over another, so doing the Zero1 awards in 3 pages is as good as us telling you, forget the other cell phones, just go out and buy a network hacked iPhone! Instead of just *telling* you what to buy, we justify it with hard facts and reviews, to help you make a better judgement for yourself.

Now, getting to the second part of your mail, it's always a sad moment for all of us when we hear readers telling us that they're moving on. The majority of our team consists of people who were *Digit* readers, and we understand what you're saying. *Digit* became India's top selling and most respected technology magazine because of its innovations and because it filled a rather large void in our lives. It can take you from being bored in front of the PC playing *Solitaire* and make you so passionate about technology that you soon find yourself employed as a technology professional!

We're not going to try and kid ourselves, we can't please *everyone*, but we will try our level best to get you interested in *Digit* again, and soon. We're also very happy to hear that you've gone off piracy, and are glad to have been the catalyst for that. Thanks for the loyalty, we truly appreciate it, and hope to soon see a mail from you like the one that follows...

Team Digit

You Will Make Me Fail

I am an MBBS student, and just another fan of *Digit*, the greatest IT magazine in India. I have to tell you that *Digit* is becoming more and more informative and interesting every month. When I bring it home at the beginning of every month, I can't stop reading it—sometimes I read it all through the night! Then the next day I just read it all over again. Now you can imagine what happens...

Like I said, I'm an MBBS student, so what am I doing reading a tech magazine, and not touching a single text book. I guess you can see how

Write to the Editor

E-mail: editor@thinkdigit.com

Snail Mail: The Editor, Digit, KPT House, Plot 41/13, Sector 30, Vashi, Navi Mumbai 400 703

Digit will publish the best letters on these pages. Letters may be edited for clarity. Please include your complete address in all communication.

For subscription queries send an e-mail to help@jasubhai.com

interesting I find your magazine to be. But please, try not to make it any better, or I'm going to fail!

The January issue was great, especially the *Fast Track*. This was perfect for people like me, who have no IT background. Thanks to the *Fast Track to Tech Jargon*, I can hold conversations about technology with my engineering friends with confidence! Thank you so much for that.

Bhushan Thombre
Nagpur

Unfortunately, Bhushan, although we love our doctors, we think it's time you switched professions. Sadly, we've already promised everyone that we're going to get even better, even if it means causing one of our beloved readers to fail his exams! Still, we hope you pass with flying colours, and wish you best of luck for your exams.

Team Digit

Open Up That Source

I have been purchasing *Digit* every month since January 2000, (when it was called *Chip*). The couriers refuse to deliver to my remote location, which is why I cannot subscribe, and have to buy it from the stalls. *Wars of The Future* (January 2008) was a really interesting read. I actually believed that it was a true story written by a hacker himself, until I noticed the January 2013 date! Also, the tip about using the GreaseMonkey script was great, and I have been looking for such a plug-in for a long time.

I also appreciate your drive to increase awareness against piracy. The best way to do that is promote Linux and OSS. The inclusion of a Linux distro in the DVD is a positive step, but there is still a part you are overlooking—making the CD and DVD user friendly to Linux users like me. I really hate to boot into Windows just to browse the disks. I do love the disk UI though, and the cool background music. I have a suggestion though, why not put an SWF version of the UI on the discs as well, so at least us Linux users can browse the disk and use the UI—even if we cannot install the software.

Nirupam Biswas
Ranchi, Jharkhand

We've been pondering the same points you're making for a while now, and are working on a solution for our Linux-based readers. Hopefully we'll have something concrete rolled out in a few

months. We're glad you like the UI for the discs, as some of us slaved day and night for over two months creating it.

Team Digit

Warriors Of The Future?

I am a regular reader, and I must say the January issue is wonderful. The *Wars Of The Future* article was very interesting and informative. After reading this article I have found a strange desire within myself to become a hacker and protect Indian servers. Please tell me, are there any courses that will help me become a hacker?

I'd also like to suggest that you increase the frequency of mobile content in your magazine—such as mobile accessories and the latest software for mobiles and PDAs.

Raju Kumar
Bihar

We thank you for the positive feedback, and are glad it appealed to your patriotic nature. There are no courses that will teach you "hacking", which is often considered an art form of sorts. Every "hacker", ethical or otherwise, is a programmer and does immense amounts of research and learning. You need tremendous networking knowledge and know everything there is to know about the C (C, C++, etc.) languages. You can aspire to work for Indian security specialist firms and become an "ethical hacker", which is basically testing and fixing the security of Indian servers and sites.

Team Digit

I Love You Digit

Everyone in *Team Digit* is like the drops of water that make the sea. I am proud of your all. I really love the *Digit Diary* section. Please keep injecting tech fuel into me. I was really sad to bid Deepak Ajwani adieu, and though I have never met him, I actually cried. I guess I love *Digit* that much.

Pankaj Kumar
Rourkela, Orissa

That's the most emotional letter we've received. Just when we thought we'd heard it all you come along proclaiming your undying love. All we can say is, whether our other readers share your feelings or not, we love all our readers unconditionally as well!

Team Digit

Whoops!

I was reading through your article about Pen drives, and unfortunately find that the article is very badly put up. There are a lot of comments that have gone haywire at different points of time.

To quote some: On Page 68, in the Slightly Overweight 2GB features, it was mentioned about the Kingston Data Traveler Reader, that "*It's not built very well though.*", but in the table on page 71, in the comments row, the plus point says "*+ Well built*". Now this is really a contrast. Either one of the statements is not true.

In the 8 GB section, the Buffalo Turbo with a price of Rs 5,220 has a minus point of "*- Costly*", but at the same time, the Sandisk Cruzer with a price of Rs 7,990 is said to be "*- None in particular*". This seems that the additional Rs 2,500 that you pay for Sandisk is justified—how? Their speeds don't really show any difference, and in fact the Sandisk is slower than the Buffalo.

I don't mean to demean what you have written, but when a person looks at these tables, or what's written in a magazine as revered as *Digit*, it's taken as the words of the Gods of technology. We rate your magazine very highly, and errors like this don't look good.

It looks like the proof reader was half-asleep as well: the contact sheet on page 75 is totally out of order.

Anyways, the tests are really helpful to me. I own a 1 GB Transcend V10, which I bought three years ago. And thankfully, it's still working great. I am impressed with the performance tests of the V10, as it outperforms the V30 and V60!

Overall, I would still like to thank Michael Browne for a great article.

Vincent Thomas
Bangalore

Sorry about the contact sheet, it's obvious something went horribly wrong there.

As for your first comment, I think you're getting mixed up with the Kingston DataTraveler and the Kingston DataTraveler Reader 2GB, which is right next to it in the table. No errors there as far as we can see.

The second error you've caught is spot on, and we've goofed up. It's readers like you who keep us on our toes, and we'll try our level best to not give you cause for complaints in the future.

Team Digit



Tabloid TECH

People And Events That Grabbed The Headlines—For Better Or For Worse

HM Wii



Never mind that she taps people on the shoulder with a sword and all after which they become Knights. Queen Elizabeth II is very much a modern person, just like you and I. Some Britons might like the idea of a monarch writing letters with a quill and having her Royal Butler collect it and despatch it via a Royal Messenger on the back of a Right Royal Horse, but it doesn't happen. The Queen uses e-mail; in fact, she's had an e-mail account for decades now.

Then in 2001, she got her first mobile phone, and sources say she's been regularly upgrading to one with the latest features. In 2005, she bought an iPod, though we don't know what version; and in June of 2007, she added a trendy BlackBerry to her tech collection.

Now comes even more news that she's human, all too

human. Prince William was gifted a Wii by his girlfriend, and—gasp!—instead of trying it out and ordering one for herself, HM shares it with her grandson. A source at Buckingham Palace told *The People*—a newspaper—that when she saw William playing a game, “she thought the Nintendo looked tremendous fun and begged to join in.”

“She played a simple ten-pin bowling game and by all accounts was a natural.

“It was hilarious. William was in fits of laughter. He was enormously impressed at having such a cool gran.

“And although she is 81 the Queen's hand-eye co-ordination was as good as somebody half her age.”

So what'll she be called now—“Qwiin Elizabeth”? Sorry your majesty, but we couldn't resist that poke!

Ozzy Osbourne Kills Bear On Stage

That's called an “Attention-grabbing headline,” but it isn't true. Actually, Osbourne got a cell phone. Which is news, because he's 59, and we're wondering what someone who eats rabbits on stage would do with a phone except to throw it at the head of someone in his deluded audience. (Officially, he's known as a *Black Sabbath* rocker, not as a stage-rabbit-eater and former slaughterhouse apprentice.) In any case, he got the phone as a gift, and though we know the model, we'd rather not tell you because of the uncalled-for negative publicity.

O. O. apparently loves his new gadget, and his primary use for it seems to be to call his daughter Kelly. The news is that he recently phoned her to say he's a fan of her album *Sleeping In The Nothing*. (Oh well, this is *Tabloid Tech* after all.)

Kelly says about her natively bloodthirsty father's calling that it can be annoying. (She didn't call him “natively bloodthirsty”; we are.)

According to the daughter of the man who once allegedly encouraged suicide among the members of the audience, “He never had a mobile before and I f***ing hate it. He calls me all



the time. I was out having dinner with my friends the other night and he called me... I spent half the night talking to him instead of my friends.” Is there a lesson here for near-60-year-olds with new cell phones?

A Different Type Of Queen...

Loves gaming, too. Well, we don't in any way encourage or condone the viewing of pornographic material, whether in print or audio-visual form, but we must give you the full picture.

If a real Queen—as in Queen Elizabeth II—can love video games, so can a porn queen (that's slang for a pornographic actress who is popular among those who are regular consumers of pornographic material).

A certain Jenna, whose last name rhymes with “ways,” loves video games too, as gaming site GameDaily found out. (Actually, it seems everyone loves computer

games these days.) At an expo of some sort (something like a CES with pornography involved, or so we hear) the organisers asked several actresses of the adult persuasion about their take on video games, and here's what Jenna had to say: “Do I like nerds? I am a nerd. I have shelves full of books at home about vampires and werewolves. And I always have my PSP with me. Right now I'm playing *Jeanne D'Arc*, which is just awesome. Also, I've got a PS3 and I'm dying for the new *Final Fantasy* to come out. See? I told you I was a total nerd.”

Well, this is just to remind you they're regular human beings too...