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YOUR TECHNOLOGY NAVIGATOR

Vol. 9 Issue 12

Microsoft Visual Studio
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2009 COLLECTOR'S *Edition*

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Good Enough?



Robert Sovereign-Smith, Editor

Although a lot of us use the phrase, "It's not quantity, but quality that matters", how many of us practice what we preach? Think about it, which of your senses is most active right now? Thanks to the cramming of our cities, sound and smell are certainly not our favourite senses anymore. Everything is visual these days, from the ads that you're bombarded with, to the HDTVs you shell out the big bucks for — to watch those same advertisements, incidentally. The victory of consumerism seems to have happened a long time ago.

What this does, however, is put on a very distant backburner the technological marvels that could be accomplished for one of my favourite senses — sound. With all the supposedly space-age technology at hand, why can't we have a recording studio-like experience in our living rooms? What happened to DVD audio? What happened to those guys who promised to turn my walls into magnificent sounding speakers? Did they fail because my walls are now also someone else's, and my neighbours don't share my taste in music?

Decades ago, we could have had high-definition TVs, but not many bothered to try, because it wasn't economical to send signals of that resolution over the air to your home — and still isn't. Why hurry to change that?

These are questions I've asked myself, and the answers are usually simple. All of the above already exist, as finished products, or at worst, as prototypes in labs around the world, but they're way too expensive, or basically just not popular enough to find their way to the mainstream.

We're slowly but surely becoming a society that is willing to "settle" for less. Previously in this space I've talked about the idiot box, and how the programming we're subjected to is just trash; the same seems to be invading every other aspect of our lives. Parents, who push their kids to get near 100 per cent scores in school, then go out and buy sub-standard stuff for their homes, because it was cheap, or because it "looked good".

The YouTube generation — of which I am also a part — is impatient, and wants everything quick, and easy. We moved from analogue sound to digital, because it was easier to store — I have a quiet laugh every time I think of that, because the same forces that drove that change are the ones suffering today, because MP3 came along and absolutely trounced their earnings with piracy.

The same applies for video. Most people ooh and aah at the beauty of 1080p HD, not realising that even old movies captured on professional, analogue film cameras can actually be scanned and displayed at several times HD resolution. It's not done because the sub-standard analogue-to-digital conversion technology hasn't caught up yet. Decades ago, we could have had high-definition TVs (not LCDs, but HD still), but not many bothered to try, because it wasn't economical to send signals of that resolution over the air to your home — and still isn't. Why hurry to change that? You're already buying expensive 1080p TVs, are happy watching lower resolution videos on them, or you're willing to buy expensive (Rs. 1,800) Blu-ray Discs, just to get a video experience that you really should have got a decade ago. That translates to win-win for certain people, and spend-spend for you.

Yes, everyone should have access to technologies — even the sub-standard ones of today — because it's what's revolutionising the world. However, that shouldn't stop us from demanding more from our products. It's the only way to ensure that technology regularly surges ahead.

At Digit, we're aware of the rather large responsibility we carry on our shoulders, which is to ensure that each one of you is always aware of what's good, and what's not. Through our monthly tests and reviews, we try and ensure that you choose the right products, and every December, we do the mother of all tests to bring out the Zero1 Awards. All this is done in the hope that you will see the merits of buying good products. If you only buy what's good, brands are forced to innovate and improve to cater to your gourmet tastes. This makes better technology cheaper, and advancements faster.

Yes, you may have to spend a little more (not always) to help this along, but would you rather spend your hard earned money on products that are worth it, or would you rather continue buying things that are barely "good enough"?

editor@thinkdigit.com

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Cover design
PC Anoop



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Disclaimer: For every *Digit* contest, there will be only one winner, unless specified otherwise. In the event of a dispute, the Editor's decision shall be final.

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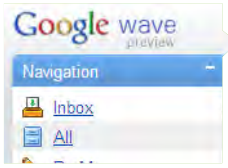
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40+ PRODUCTS TESTED



Customization

Windows Shells

Replace boring old explorer with these fun desktop environments





- Talisman Desktop
- BBCLean
- Aston2 shell
- BB4Win
- Blueberry 3D Desktop
- Desktop X
- Emerge
- Bumptop

Skins

Eye candy for major skinnable application

- bbLean: 350+ themes
- Chrome: 100+ themes
- Firefox: 400+ skins
- Foobar: 50+ themes
- Miranda IM: 450+ skins
- Opera: 300+ skins
- Talisman: 250+ themes
- Trillian: 50+ skins
- VLC Skins: All 96 Skins
- Winamp: 500+ skins
- WMP: 300+ skins

Plugins

Increase the functionality of popular software with plugins

- BB4Win (130 Plugins)
- Free Download Manager (All plugins for the Lite version)
- IrfanView (8 plugins and 4 plugin packs)
- GIMP (200+ plugins)
- Firefox (100+ top Add-ons)
- Thunderbird (100+ top Add-ons)
- Winamp (200+ most used plugins)
- Windows Media Player (All free plugins and visualisers)
- foobar2000 (50+ Plugins)
- Chrome (All 81 Plugins)

Desktop Apps

Add little applications to spice up your desktop and your desktop sidebar



- Microsoft Gadgets (300+)
- Google Gadgets (300+)
- Yahoo Widgets (300+)
- Opera Desktop (300+)

Retro Gaming Pack

Utilities for playing DOS games, as well asv a whole bunch of DOS games

Utilities

- DOSBox - Play DOS games on modern machines
- DBFrontend - A frontend for DOSBox
- Moslo - Slow down your computer for playing DOS games
- ScummVM - Interpreter for old DOS games

Games

More than 300 Shareware, Freeware and Abandonware DOS Games including:













- Abuse
- Antrun
- Assault Trooper
- Bio Menace
- Dangerous Dave
- Descent
- Doom
- Duke Nukem
- Galactix
- Heretic
- Hexen
- Hocus Pocus
- Inner Worlds
- Invaders
- Ken's Labrynth
- Lemmings
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- Paul D. Miller aka Dj Spooky
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- Skandalo Publico - Ay ay ay
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- TriFace - 3 Saucisses Dans Une Bulle

Gaming



Games

- Eufloria Updated Demo
- FIFA Soccer 10 Demo

Games Trailers

- Marvel: Ultimate Alliance 2
- Dragonology
- Tiger Storm
- Gran Turismo 5







Tools
The latest applications for all your needs, including portable apps, licensed software, 64 bit versions and applications for netbooks

Internet
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- CoffeeCup Photo Gallery 5.94
- TomTom Home 2.7.2.1825
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- Social Traffic Network 1.0



Multimedia
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Computer Science

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RIPLinux
Recovery Is Possible is for recovering from system crashes.

Trinity Rescue Kit
Trinity Rescue Kit or TRK is specifically for recovery and repair operations on Windows.

UBCD
Run floppy-based diagnostic tools from CDROM drives.

Licensed Software
AtRise Lutcurve



Calibrate your monitor display to give you that crystal clear image.

Aneesoft HD Converter
Downsize and convert HD videos to play on any portable media player platform

Plato DVD Copy
Take a backup of your DVDs, or make a better copy of scratched disks

Abylon Shredder
Securely erase history and free space on your hard disk to shred files beyond recovery

SoftOrbits Flash Recovery
Flash data recovery tool to recover photos, MP3 and documents from flash drives, USB drives, digital cameras.

ByteScout Movies extractor scout
Movies Extractor Scout Lite is free utility that allow to view and save flash movies.

Linux Distros
Just burn the image file onto a CD, slide it in the CD tray, hit [F12] during system startup, and select "Boot from CD/DVD Drive" to experience Linux, a viruses free OS with a low system footprint.

Ubuntu 9.04
A easy to use distro for office and internet work.

Open SUSE 11.1
A secure and easy to configure distro with multiple desktop environments.

Movies
Watch three free classic full length movies



ERRATA
There was an error on the DVD facia and DVD contents page in the November issue, where K7 Total Security branding appeared in the DVD contents page and Norton Symantec branding appeared on the DVD facia. This was unintentional and is regretted.

✉ I am a serious gamer, so, first of all I want to say THANKS for packing "Fast Track to Gaming Consoles" with Digit November 2009 issue. In this issue, I've also found an interesting article: "Virtualisation Goes Mobile". By 2012, you say that 50% of new smart phones will use mobile virtualisation. But, what about game console virtualisation? I am not talking about trans-console virtualisation here, but console virtualization on PCs. We can use Yellow Dog Linux in PS3 making it a full featured PC, but what about the converse? We've seen graphics quality rendering war between Gaming consoles and PCs. So, there must be another virtualisation innovation. In another words, "How can I play PS3 & Xbox 360 games on a PC (probably on Windows)?"

Sachin Shekhar

d The Idea has been cooking for some time now. While virtualization of gaming consoles is in itself unlikely, one can never say for sure. On Live is just one of the many experimental services that allow you to play PC, PS3 and X-box games on your desk-top, irrespective of the Operating System that you have installed. This however requires a high bandwidth internet connection.

Siddharth

✉ First of all hats of to the Digit team for creating the best tech mag and keeping us up to date, while filling our hard drives with the software you provide. I am a die-hard fan of Digit and will always be indebted to it. It all started on June 2005 when I started my engineering studies in Chennai. Before I boarded my train, my dad bought me my first issue of Digit, saying it might help me for my course.

I had lived in a rural area for most of my life so I had absolutely no idea about computers. I joined my college hostel and started reading Digit on the very first night. You people caught me hook line and sinker. Every hostel outing, I would run



to the store and buy a copy of Digit. Then came second year when we were allowed to have computers. Some guys from another department came to my room and asked me to buy them a computer because they'd always see me reading your mag. That was the time when AMD had better processors than Intel and most of the students had never heard of AMD and didn't trust it either.

I bought my very own AMD system with an nVidia 6600 with my limited budget. After that I bought another 15 computers for my friends that year itself – with Agent001's help of course, and spent most of my nights fixing them even during my mid term exams. I even searched for old Digit mags on the second hand shops. I made a lot of friends, became the most popular computer geek in my year and the most dedicated gamer too (although my aiming leaves a lot to be desired).

Your hardware, software troubleshooting articles, and tips and tricks helped me immensely. Even when I come home during the holidays I would bring my old Digit collection and show it to my old friends who would marvel at how much progress the tech world has made. Three months ago, my father came to me and asked me if I wanted my very own computer sales cum repair shop. It was all I ever wanted and I hold the Digit team responsible for that. We are half way through the construction. I'm sure you guys have pretty nifty tips for self employed people like us.

Thanks guys, for giving me a self employed job which I enjoy doing. I dont know what would have happened if dad hadn't bought Digit on that day. Hope you continue to create more citizens of the Digit world. Once again thank you. P.s. Could you guys do a test on power supplies and have an article on ww2 games?

John Ranjith

d Thanks for writing in John! The entire team loves to read stories of our readers, and your mail touched everybody working on the magazine. Congradulations on your new venture.

Robert

✉ I am really a big fan of your magazine. This is the first time I am writing to you. I have been reading Digit for over two years, and all my friends who read your magazine, really appreciate your work. I am from a very small village in Bihar, but the craze of your magazine in my village is outstanding, for which I want to congradulate you. The content you provide is just fabulous. I am a student of B.C.A and I want to build my career in IT Field. So, I request you to please provide some Fast Tracks on C# and provide the new operating system Windows 7 Professional (Trial). I will be very thankful to you. All The Best and keep up the good work.

Sana Khan

d Thanks for your wishes. We will add Fast Track requests to our list. You will find Windows 7 in our June DVD.

Robert

✉ I am a reader of Digit from its very birth and now for many years, I am a regular subscriber of Digit. I have tried many computer magazines but found that no one is better than Digit. In both the contents of the magazine and two dual layer DVDs, it is unparalleled in the market. It is very good to see that despite being the number one IT magazine of India you still try to be better. In recent years, you have provided DVD ISOs of major distros, but now you are providing only live CD ISOs. I have waited month after month, but I just get frustated every time an issue comes out. Why are you depriving your readers in such a way? You are the No. 1 Computer Magazine in this planet. Can't you provide i386 DVD ISOs of the latest Linux OSs? I think you can, if you wish! If your answer is affirmative then you please provide those with all other Linux distros in your next issues with additional mp3 codecs and common video format codecs and extras. Please continue to give out screensavers, icons, cursors, themes, gif animations with every issue, along with the mind blowing wallpapers.

Roubhya Shankar Aluni

d A DVD ISO takes up about one half of a dual layer DVD, which is a big waste of space for those who do not use Linux. Moreover, these versions are bloated, and as most Linux programs are pretty small, it is more sensible to build up your systems from a light installation. Additionally, choosing to put in Live CD iso's allows us to give more open source content. However, we do plan to include the DVD ISOs for major distros, and incorporate their release cycles into our issues. However, we are working out on which distros to include and which to leave out. We understand that codecs are a major problem with Linux, and it is a great idea to include these essentials in the DVD. You will be pleased to find

plenty of skins, widgets, and a load of wallpapers for customization in this month's Playware DVD.

Aditya

✉ I am a new fan of Digit magazine. I picked up my first Digit copy this November, and I think it is the best tech magazine I've ever read. I also appreciate your efforts in making the magazine very fascinating. It's DVDs are awesome, containing precious day-to-day software which a common PC lover needs.
As a newcomer in your Digit family, my only suggestion to you is to provide all previous issues (along with FastTracks) in eBook format inside your DVDs monthly. It would be very helpful for the new readers like me to access the tech-knowledge from the previous issues. I'm sure many readers will welcome this too.

Biswaranjan Nayak

d We give away past issues of the magazine in the DVD of December special every year. You will find past issues in the By Demand DVD.

Aditya

✉ I purchased your magazine for the past three months purely for the Linux distros on the DVD. Please give tips and tricks on Linux too.

Lenin

d We keep a healthy balance between Tips n Tricks for Windows software, and for Linux based software. We have given Tips and Tricks software before, and the Fast Track to Open Source contains everything you need to get started on almost any Linux distro you will get your hands on. Rest assured, you will find plenty of Open Source content between our pages.

Nash

✉ I am a subscriber of Digit for past 3 years. I want to ask one question related to internet speed. However, I don't know where in thinkdigit.com to ask that and by what means they will answer me - either to my e-mail id or do I have to visit the site again.

Arun Raj

LETTER OF THE MONTH

) I am a 14 year old reader, and I am Digit's biggest fan. I am at a loss of words on how to thank you, because I am called the tech guru of my class, and I proudly say that I am the reader of the No. 1 tech magazine in India (for me it's the best in the world). I am truly disappointed that many people don't know about the illegal nature of the operating systems they use. I have moved from piracy to Open Source because of Digit. Most of the people in India use pirated operating systems and download pirated games, simply because most of them are too costly.

My friends call me the tech guru, but I tell them Digit is my tech guru. One last thing please provide the soundtracks of the Digit DVDs. I mean the tracks which are played in the background in the Digit interface. I really liked the soundtrack of nov 2009 DVD1.If it is possible please mail me the nov 2009 background tracks.

Moses Prabhakar

Good to know that you are avoiding piracy, and even better that you have embraced open source, which is one of the best ways to learn how computers work, and get them to work for you. The songs used in our DVDs can usually be found in the Entertainment section of the DVDs.

Robert

d Sign up for our forums, at www.thinkdigit.com/forums. Readers like yourself post questions on threads, and these are replied to by a very active community of readers. If you face any problems, you can send a private message to one of our forum admins, Cyberjunkie, Staticsid, Lucifer or Anorion.

Rossi

✉ I am a regular reader of Digit, all the way from Kathmandu, Nepal and am enthusiastic about each issue. This is my first letter to you in years. The letter conveys my congrats and wishes to the team along with a complaint cum request.

I have read many other technology magazines from the South-Asian region and found Digit to be the best of them all. I firmly believe that Digit may even be one of the best magazines in the whole world. For years Digit has been an enlightening source of the latest technologies to all its readers all over the world. The November issue with the design theme was awesome. The Industry Connect section was as usual helpful in making career plans.The inclusion of Web 3.0 was the learning part and the news that 1Mbps broadband access was now a legal right to Finnish people acted like salt on wounds due to slow internet speed. Please continue with the tips and tricks on Windows 7, as we all are new to it.
Now comes the bitter part of complaint. Digit has readership all across the world and one thing that hurts me is that in this period of globalization, even the No. 1 magazine is not able to break the boundaries. It is surprising that all the offers and contests are only for Indian Readers. We over here (in Nepal) can not avail the subscription offer and get monthly issues at MRP. If only the thousands of fans of Digit from outside India could avail the various offers and contests, I believe the readership will increase a lot, and help Digit be better than the best in the whole world. I hope that you guys will look into what is possible with respect to this matter.

Hiron Shah

d Thanks for writing in, and taking the trouble to read even the smallest elements in the issue. We are working on many ways to make subscriptions and delivery mechanisms easier for our readers in the South-Asian region, as well as a system of selling issues through our website.

Robert

✉ I have been reading Digit for quite some time now but this is my first letter to the magazine. I must admit that it has changed a lot (for good,of course).
Recently I have been facing some issues with my PC. I have an old motherboard Intel-865, Pentium 4 3GHz, 1.23GB RAM, and a 40 GB PATA Hard disk drive. A couple of days ago I bought a 1 TB Seagate Hard Disk. I have connected both disks to my system and have Win XP SP2 on the 40 GB HDD. The entire 1TB hard disk is just single partitioned and I can store data on it. However, I cannot partition it either using Disk Management or using PartitionMagic 8. It is shown as Dynamic Disk (and not Basic). While installing XP the system does not recognises the new HDD and while installing Vista there is no format option and selecting the disk the NEXT option is not highlighted. When I right click on the drive in DiskManagement the ExtendVolume option is not highlighted. With Partition Magic 8-No right click option is availabe. Cannot format it from the menu either.

d Dynamic disks work differently from Basic disks. To create partitions, you need to convert the drive back to Basic. Once you have a dynamic disk, converting back to Basic will destroy all the data on the drive. To do this, go to Disk Management under Administrative Tools > Computer Management. Right-click on the drive and click Convert to Basic disk. Make sure to backup all your data first.

Rossi

ERRATA

On page 99 of this issue, we have erroneously mentioned the text "The best performer" when referring to the Zenith netbook in the Zero1 Awards. The text was supposed to read "The best buy". The best performer in the Netbook category is the ASUS Eee PC 1005HA.

On Cloud 9.10

Q How did Ubuntu originate?

A Ubuntu is a community developed and supported project. Since its launch in October 2004, Ubuntu has become one of the most highly regarded Linux distributions with millions of users around the world.

Ubuntu will always be free to download, free to use and free to distribute. With these goals in mind, Ubuntu aims to be the most widely used Linux system, and is the centre of a global open source software ecosystem. It contains all the applications you need — a web browser, an office suite, media apps, instant messaging and more.

At Ubuntu we promise that:

- Ubuntu will always be free of charge, along with its regular enterprise releases and security updates
- Ubuntu comes with full commercial support from Canonical and hundreds of companies from across the world
- Ubuntu provides the best translations and accessibility features that the free software community has to offer
- Ubuntu core applications are all free and open source. We want you to use free and open source software, improve it and pass it on.

Q What does Ubuntu mean?

A Ubuntu is an African word meaning 'Humanity to others', or 'I am what I am because of who we all are'. The Ubuntu distribution brings the spirit of Ubuntu to the software world.

Q Do you imagine that Ubuntu could be what Windows is today?

A When we started Ubuntu, our objective was to give customers an operating system of choice. Today we have come a long way and are comparable to Windows in terms of usability and features. We are already doing a lot of work in the usability front to redefine the desktop. Going forward we expect to exceed what Windows does today in terms of ease of use and functionality.

Q What's unique about Ubuntu?

A Everything you need comes on one CD, providing a complete working environment. Additional software is available online. The CD is a live CD and Ubuntu can be used from the CD or from a pen drive. The graphical installer enables you to get up and running quickly and easily. A standard installation should take less than 25 minutes.

It's free, open source and we don't charge licence or subscription fees. It has a large collection of open source applications which can be easily downloaded and installed.

Q What's new in 9.10?

A Version 9.10 includes the latest OpenOffice 3.1 that supports Microsoft Office 2007 documents. Also, it has Firefox 3.5 with significantly improved performance. Additionally, 9.10 has better support for 3G connectivity, and has large scale user experience improvements.

Ubuntu One provides an enhanced desktop experience, simplifies backup, synchronisation, and sharing of files with an expanded set of features including Tomboy Notes and contacts synchronisation. It has a faster file system with Ext4 and finally faster boot time.

Q What about Ubuntu's limitations? Any possibilities of well known applications such as Photoshop, PDF converters being available for Ubuntu?

A Yes PDF conversion facility is built into OpenOffice, you don't need to purchase any additional software. In fact there are lots of interesting plugins available for OpenOffice that can also edit PDFs. While Photoshop is not available on Ubuntu, we bundle Gimp for similar functionality.



Prakash Advani, is Partner Manager, Central Asia at Canonical, the commercial partner of the Ubuntu project

Q What about Ubuntu's enterprise and server level capabilities?

A We have released Ubuntu Server with support for cloud computing. With this capability, we are the first operating system to support private clouds. While organisations love the concept of a cloud, they do not prefer it due to security concerns. With Ubuntu Server, they can take advantage of the cloud and also keep the data in their own data centre.

Q Any India specific plans for Ubuntu?

A We are working with several major OEMs in India. We already have a tieup with Dell and have recently tried up with Simmtronics to ship with netbooks pre-installed with Ubuntu.

Organize a TEDx!
You can organize your own TEDX event and screen TED.com videos. Head out to www.ted.com for details

TED India fellows
Find out who the Ted India fellows are and what they are up to at www.ted.com/fellows

TED Comes to India



Lakshmi Pratury, co-host, TEDIndia 2009 spoke to Digit on TED's first Asian conference, TED's plans for India and its various global activities

Q This is the first time TED has come to Asia. How was India chosen as the location?

A TED, as an organisation is interested in getting more global voices. When we conduct events in the US, most of the participants come from the western hemisphere. But if you really want to get more thought on what's happening in the world, you got to listen to what they have to say (the nations). If you consider the world's most populous countries, six of them are in Asia. In fact, between India and China we have one-fifth of the world's population. There are a lot of things happening in Asia that are clearly of interest. Within that, India is the microcosm of the future because of the young population. Definitely, if you want to know the future, you should go to where the future lives.

Q How has the experience been and what kind of response has TEDIndia 2009 received?

A We were very happy with the response. We had a lot of companies that financially supported us, and a lot of participation from all over the world. Lots of Indians coming here, from something like 46 different countries. We were targeting around 400 people, and we had over 900 people who came. We got really good feedback at the end — a lot of people felt this was one of the most fun TEDs and it was great at showcasing what's going on in this part of the world.

Q What are the plans for the future? Any more events or conferences soon?

A We have a very good product strategy in India. Some meets are independently organised events. They are not editorialised by TED. Twenty TEDx events are already queued up. These are independent events, where the organisers get to share some of the credit. It is hard for an organisation to have three conferences in a year and be true to the brand. But we have a lot of other activities planned, and there are many ways in which India could participate on our global stage. We are working on a lot of those ideas.

Q How can people be a part of TEDx events?

A Well, there is a whole licencing process. If you go to the web site, you can have a look at the process. There are rules on how many people you can have, that you cannot charge, that the sponsorship has to cover the costs as this is not a money making conference. The whole idea is that we have all these videos, and how we can make sure people can see them. They can be shown at parties, or schools and colleges, there is just so much that can be done, to take content that already exists to inspire people.

Q Are you looking at the smaller cities and towns in India as well?

A Certainly, There is a woman who flits between Dubai and India, who is organising one in a small village in Rajasthan, which is about three-four hours away from Jaipur. One person is holding one in a very small place in Karnataka. It is being spread all across, not only in metropolitan cities.

Q If our readers want to make a presentation, how do they go about it?

A Typically, we read the mails that are sent to us very carefully. Based on what comes to us, we decide on how to take it further. But the fact is that if a person comes to our notice with some credibility, from a path that we can trust, or somebody we know can vouch for their work, it just makes it a little easier. That does not mean this is the only way. We always encourage people to send in their ideas to us, then we figure out what makes sense and what fits in. There is an overall structure to our selection. We are looking for an equal amount of artists, architects, scientists, social entrepreneurs, etc. We try to maintain that variety.

Q How do people attend a conference?

A We have an application process. People have to answer a few questions. We get back to them, on whether they were accepted or not, then they payto get in. The reason we do that because we want to have a mix of audience. We got in a hundred TEDIndia fellows completely for free, because we felt we needed to have that youth element, and the inability to pay should not be a reason for deserving people not to be there. We try to make sure as many people from a wide variety of backgrounds can get in to the conference, at the same time ensuring that we can continue to provide the content that we do for free.



Indian Cloud Services
Indian companies are joining the list of cloud service providers. TCS, Infosys and Wipro are among companies with their eyes on the cloud

Airtel Tweets
Indian tweeple who use Airtel can now tweet from their mobile phones for Re. 1 and get updates of tweeple they follow for free

HP "shrinks your world"

When you hear phrases such as *watch geographical boundaries dissolve* or *shrinking your world*, it is almost always a clichéd reference to Video Conferencing. Naturally, when HP announces SkyRoom with the tag-line *With HP SkyRoom, geographical boundaries dissolve in no time*, you expect something more than just a Video Conferencing solution.

While HP SkyRoom is indeed a video conferencing solution, it brings enough to the table to deserve some attention. HP SkyRoom is designed with an enterprise audience in mind, and to that effect it focuses more on better quality communication and collaboration than in ensuring that it works on a wider number of systems. Current video conferencing solutions are designed more for boardroom meetings with people talking.

For people who need to use such solutions for collaboration on projects, simple video conferencing is not enough. We got a demo of SkyRoom in action, sharing 3D modeling files over a network at a recent conference in Mumbai.



The Nokia N900

Unlike most screen sharing software out there, HP SkyRoom allows you to select an area of the screen, while keeping the rest private. The software also allows for sharing the control between the participants of the conference, allowing anyone to take control of the sharer's computer – one at a time.

Each person can work on the open applications remotely. The software encrypts the video, audio and screen share information using a 256-bit AES cypher, and can thus work securely on an organisation's existing network. While competing with high-end video conferencing solutions which cost in lakhs, HP SkyRoom comes with a low price tag of Rs. 8,400 ($149) for a single permanent licence which can be node-locked or floating.

thinkdigit.com To know more about Skyroom visit http://www.thinkdigit.com/d/hpsk
'e Scan'



A video editing application being shared in SkyRoom

Nokia to abandon Symbian?

Despite Nokia's resolute commitment to the Symbain platform, it seems Maemo might be the future operating system for its N-Series. In a Q&A with bloggers during the official N900 meet-up recently, it was revealed that by 2012, Maemo will replace Symbian in their N-Series mobiles. Nokia has neither confirmed nor denied this. While it is certainly less of a leap than an official Android-based Nokia phone, considering that both Maemo and Symbian are Nokia technologies, this is still a pretty big deal.

Nokia has on many occasions reaffirmed its commitment to Symbian, and continues to develop it. Both Maemo and Symbian will hold a place in Nokia's court, and Maemo's is steadily increasing.

Nokia will continue to create tools for developing for both platforms, and in fact the upcoming versions of its Qt multi-platform GUI development toolkit will add support for both devices.

While Qt 4.6 supports developing applications for Symbian, a technical preview of Qt for Maemo 5 is available. This stands to hugely simplify development for mobile platforms, as applications developed for Maemo can also be deployed to Symbian.

Symantec crowns India as Prince of spam

Symantec's November report on the state of spam and phishing, has some unnerving details on the increase of global scam originating in India. In the four months since June, India overthrew Poland as Vietnam overthrew South Korea from their places in the worldwide spam charts.

This does not mean Indians are getting more spam, but a large portion of worldwide spam originates from computers in India. The report outlines how countries from the Asia-Pacific region, including Japan, are overthrowing the European Union, which is currently the "King of Spam", although the United States and Brazil are in the first and second places respectively, as the countries of origin for spam.

This should not be read as an increased number of Indians engaged in trying to get a quick buck by spamming. The real scenario is far worse. This means that Indian security is particularly lax, and that infected Indian computers form a large proportion

Orkut gets revamped, nobody cares d Mumbai based Geodesic launches Spokn, an online telephony service d Twitter debuts new beta features to a few selected users,

Blackberry owners rejoice
Canadian company RIM opens up the Blackberry app store for India situation.



4G
Transceiver chip maker Infineon ties up with Nokia to work on the next generation of 4G mobile phones

of major botnets. Botnets are computers that are captured by spammers, and used as a proxy for sending large number of mails and bypassing normal system checks to restrict the number of connections from a single computer.

All those viruses that don't really seem to do anything to your computer, and all those infected USB drives are not just giving users a hard time. Their intention is to spread from computer to computer, and form a part of a botnet that can be used for various purposes. This points to very loose, and outdated security when it comes to computers in India. Symantec however, notes that the trend could largely be because of the spread of internet and broadband infrastructure in India.

Thankfully, India does not feature as prominently on the phishing part of the report. India comes in ninth place. What is disturbing however, is that almost all the Phishing scams in India are related to Banking. India is a very susceptible target for Phishing attacks, because of the lack of net-savvyness in many people who bank online, and because online banking has just started off.

On the brighter side, the full spectrum of banking services are not yet offered online by many banks, and people have not yet adopted using the online services of banks that do. There are indications that Indian users are going to leap frog over desktop based online banking, and directly head out into mobile banking, which is a much more secure approach.

However, if you do bank online, we encourage you to check the URL of every banking site carefully before entering any personal details. You can download the Symantec reports from http://www.thinkdigit.com/d/sispr.

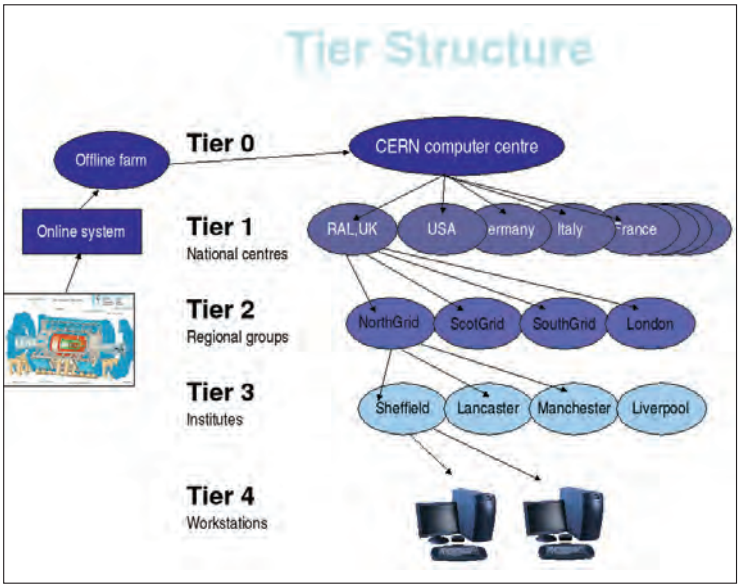
Worldwide Grid launched by CERN

The organisation that gave us the world wide web has put the internet to good use again by deploying the biggest ever grid till date. A grid is the exact opposite of a cloud, where data is processed simultaneously on individual computers, after it is distributed to them, instead of centrally, on servers with a high processing power.

Grid computing in itself is not a new idea, and has been used by scientific projects on a large scale before. One of the earliest and widest known implementation of grid computing was Seti@home. Since then, scientists have used the grid for everything from unravelling protein structures to weather forecasting.

Although CERN and associated organisations spent $6 billion on the LHC, the amount of data that the collider would churn out once it was operational was immense – around 15 petabytes a year. Processing this data would be immensely expensive. Apart from that, relying on traditional supercomputer architecture to process the data would be time consuming as well. Grid computing distributes all this data to machines located around the world, reducing the operating cost, putting more processors to work at the same time, and providing a fail safe backup for all the data.

CERN's grid uses high-bandwidth (10 Gbps) fibre-optic cables, to eight important nodes located around the world. There are four sets of nodes around the world that distribute the data processing to more computers located close to these nodes. The most active is Atlas, with nodes mostly in the universities of the United States. Europe hosts most of the nodes in the CMS set, with two nodes in India.



The world's largest Grid, used for processing the terrabytes of LHC data

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Call of Duty: Modern Warfare 2

Russia bans COD

Careless censorship has been a problem that most popular culture items have faced time and again. The latest victim of policing is Infinity Ward's *Call of Duty: Modern Warfare 2*, with Russia recalling all copies of the game from stores. The reason, of course, is the controversial 'No Russian' level in the game, which depicts the player and a few Russian terrorists opening fire on civilians in an airport.

The airport level is obviously a publicity stunt by Infinity Ward in order to raise more word-of-mouth publicity about the game. There have been online comments and blogs that call Russia's game recall as being hypersensitive and hypocritical. The biggest reason for this is that the game is set in current times using the name 'Russia', and does not depict a historical or fictitious context like in previous Call of Duty games.

including notifications and retweet icons d After Facebook, twitter plugs in to LinkedIn d Google buys out AdMob, a specialised mobile marketing company

26 **Web watch**
Everyone now seems to have Google Wave. Great! We tell you what you can do with it

30 **Mobile watch**
Stay tuned for more stories about mobiles in our Mobile Watch section

Fun on the run

Mobile entertainment in India is really heating up. Find out where all the action lies and what is in store for us in the years to come

Siddharth Parwatay
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India has probably added its 500 millionth mobile subscriber! That's quite a feat considering we're still hailed as an developing country. Over time the mobile telephony landscape has changed and mobile phones are not just merely used for voice calling. They form the framework through which entertainment content is delivered to the masses. Lately the action is heating up quite a bit in this space with a number of innovative offerings from various members of the mobile content eco-system. Going by the numbers, it looks like our appetite for entertainment is limitless. Just a small taste of this can be evinced by the fact that even caller tunes (technically known as CRBT – caller ring back tones) is apparently a home grown concept.

It won't be long before almost every Indian holds a mobile device. The sheer number of users in the country is very high as a function of the population. We have close to 500 million subscribers and our population is 1.1 billion. This creates a large eco-system for entertainment content providers to constantly innovate and come up with interesting offerings to catch the attention of users. The ultimate winner is the consumer who can enjoy the various offerings.

"In this age of convergence, the prominent growth driver in this sector is the consumers' desire of getting more from their mobile phones. Content is definitely the king in the mobile VAS segment," opines Simone, Co-CEO of Buongiorno.

"While GPRS usage is getting more and more popular, the number is still low, say 35 million users across the country who access mobile internet, WAP and premium content on their phone," says Rajiv Hiranandani co-founder of Mobie2Win, a leading mobile entertainment company.

The story so far...

According to Hiranandani, what is available to the consumer right now is a variety of data and entertainment services across various platforms. You have the SMS platform, the WAP platform, and the voice platform. Additionally, entertainment applications are inbuilt into handsets. You can access subscription services that deliver alerts in the form of Jokes, Cricket updates, Stock alerts, Edutainment, etc. Basically, a variety of information options are offered by an operator to consumers over SMS. "The basic premise is that a lot of information available out there on other forms of media can also be made available to the consumer via text messaging," adds Rajiv. This forms the basis of infotainment.

There are many players providing this content via operators. Mauj.com, hungama.com and mobile2win.com are just some of the players. Alert services may not necessarily be operator bound. Even third-party content creators can deliver this data. One way in which this can happen is by short code which of course has to be live. So when the consumer sends a keyword via short code to the content provider, the relevant piece of information is sent back to the consumer along with other options as promotional material. The WAP platform that came into existence some time ago is now gaining popularity with the masses. Still, with full-fledged web browsers built into smartphones of today, soon you may no longer need mobile optimised sites. However, the opportunities for entertainment for WAP come along with imagery. Basic wallpapers to MMS content, themes, mobile games, casual games, multiplayer games, are found on direct to consumer mobile sites such as Handango.com, Zedge.com or PhoneyTunes.com.



Illustration: Chaitanya Surpur



Channels featured on peoplesound.com

Then and now...

The next format in which action is heating up presently is voice offerings, which start with the same kind of content that you get on the other platforms. Operators have their IVR menus and their individual numbers. You have third-party content providers that offer their own content in this space too. Voice services include chat, dating (which is basically voice chat put to some interesting use), blogs and marriage services. The voice products offered by Mobile2Win have seven million registered users across operators. This shows that the average consumer is hooked.

Mobile communities are another area that have just taken off in India in a big way. Not surprising that according to Opera Mini's state of mobile web report for August 2009, the mobile versions of sites such as Orkut.com, Facebook.com and Peperonity.com (a mobile-based social networking web site) figure high among the top ten. Mygamma.com also seems to be popular in this space. The rudimentary versions of mobile networks started coming up some time back when colleges and academic interest web sites such as pagalguy.com had their own SMS networks to disseminate important alerts to students.

Communities even on mobile format are all about social networking and collaboration. The mobile platform adds a touch of ubiquity to social networking which is already popular on the web. A natural outcome of such communities is the huge amounts of user generated content, be it in the form of pictures, video, recommendations, reviews, and topsites. Many companies are going into the social networking play in a big way after realising the opportunities here. Nazara has just announced a tie up with New York-based mobile social community called Cellufun.com. Much of the content on cellufun will now be offered by Nazara through various operators. Cellufun appears to be something like a SecondLife, but in the mobile format. People socialise, buy virtual goods for self expression, gifting, and for competitive advantage all in a game-centred environment.


Simone Ranucci Brandimarte
Co- CEO & COO, Buongiorno

"The next level of mobile telephony is 'entertainment on the go'. Services are the key growth drivers, and it will be extremely important to customise offerings to target user demands"

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Another popular mobile social network is peoplesound.com launched by Buongiorno. It lets you update status messages and follow topic specific channels. mobile2win.com is also looking to enter this space in a big way with its soon-to-be-launched product that will combine user generated video content and social networking. "We at mobile2win are in the market right now pitching couple of new products which will be available with Indian as well as international operators. One of the products is going to be a UGC video product, and our friends chat product which we're taking to the international market," informs Hiranandani.

Gaming is perhaps the most popular and most consumed form of mobile entertainment in the country. We all like the distraction offered by mobile games on the seemingly long and endless commutes that many of us in the urban setting have to endure daily. According to a research conducted last year the Indian mobile gaming industry alone is worth around $40 million a year. This accounts for about half of the electronic gaming market across all platforms including consoles, handhelds and PC. Naturally, we will be seeing significantly better offerings with game sizes moving up from a few KBs to multiple MBs. Perhaps turn-based MMORPGs (massively multiplayer online role playing games) may be the next big step on the mobile platform.

Cutting edge innovations

The value of content was identified long ago and there have been many innovative initiatives launched by content providers, networks and even handset manufacturers in an effort to gain the attention of consumers. Early on, there were some failed experiments with content delivery mechanisms. For instance, the Hungama.com-backed MobileMagic initiative announced a scheme in 2007, through which you could buy memory cards loaded with legal content. Users could recharge their card with content such as movies, ringtones,songs, games and wallpapers through retail partner tie-ups with Cafe Coffee Day outlets. The premise was that it's difficult to download rich content due to the limitations of GPRS. It failed.

A while ago, Reliance launched a scheme by which novels would be delivered to consumers via SMS. The first novel doled out was "Deaf Heaven", and was sent to subscribers through a total of 90 SMSs over a period of thirty days. Reliance also planned to make the book available as an audio book — at a cost of one rupee a minute. The audio book was 60 minutes long and the cost of subscribing to the service was Rs. 30. It's an interesting viral way for books to be promoted, but we're still not sure how many people will be comfortable with reading / listening to books on their cell phone.

Other interesting things happening in the mobile entertainment space are more contemporary than others. Bharti Airtel recently tied up with twitter to bring the power of microblogging updates to the masses by bringing it down to the SMS

Dell to make cell?

The long rumoured phone called Mini 3, based on the Android OS will probably come out at the end of the year

Zii to get 3G

If rumours are to be believed then Creative's Zii Egg will get a 3G chip soon and transform into a smartphone running on Android

platform. The move puts Twitter in the hands of millions of potential customers. All customers have to do, is text the short-code START to 53000. "There are over one billion people with internet access on the planet, but there are more than four billion people with mobile phones, and Twitter can work on all of them because even the the simplest of these devices feature SMS," says Twitter Co-Founder Biz Stone on the official Twitter blog. The deal will remain exclusive for a month, after which operators other than Airtel can offer the same services to their subscribers.

Tata DoCoMo on the other hand was dabbling in Momics – comics on mobile. It was planning to bring Manga – Japanese comics which have their own peculiar style – via a downloadable application called 'Comix On The Go' to Indian consumers. Meanwhile Airtel has announced a comic portal on their deck that will provide 300 Indian and International comics. The comics are being offered through a partnership with ROK comics. The site (wap.rokcomics.com) can be accessed by anyone but data charges will apply. We noticed a few interesting Indian titles such as Shivaji, Birbal the witty, and Rani of Jhansi, while international titles include BC and Hagar. If comics are not properly ported to the mobile format, they tend to get a little fuzzy. The text becomes especially unreadable on the small screen.

Who wins? You!

Mobile entertainment consumers as well as content providers are going dizzy with the possibilities that 3G is likely to provide in this space. Once the spectrum auctioning niggles are ironed out, it will really mark the next stage of entertainment evolution. Faster data speeds equals richer content, including multiplayer gaming. "So for instance players can be located as far apart as Mumbai and Delhi, and play something like cricket or tennis in real time. You can bowl from one place and take a shot from another. We're doing some R&D in this area as well. We see gaming take off in a big way," says Rajiv of Mobile2win.



Samir Bangra, COO of Indiagames.com, however has a slightly different view on the whole 3G roll out. According to him, "As a mobile entertainment company, we're of course very excited, still, there's what we call a ripple effect of the 3G roll out, that has to be dealt with. This essentially is solving the problem of spectrum availability of the operators. Networks are so badly choked, that operators are not able to divert any of their bandwidth for data. While charges for data services will be taken by operators, networks may not support them." Bangra expects at least 20 per cent of the market to switch to 3G plans mostly from the category A circles and not the tier II and II towns. For these adopters Indiagames has some interesting plans. "We'll take them to a far superior gaming experience than they're experiencing today. From 300 kb we'll go up to 2 meg. A Bruce Lee game we're working on right now for the iPhone is likely to be a 90 MB game. This will be released on several platforms as well. These games of the 3G era will be far richer in graphic quality, sound and gameplay." We were very curious about the multiplayer capabilities that can be achieved through 3G. "This is a question that is on everyone's mind right now, and I hate to be a wet blanket, but we'll still be stuck with turn-based gameplay. Pingpong, tennis, cricket can be conceived, but not shooting or racing where the lag might render it unplayable. Realtime is too much to ask of a network, even 3G," he added.



Rajiv Hiranandani
Co-founder of Mobile2Win

"Players located as far apart as Mumbai and Delhi can play active games in real time when 3G gets rolled out in a big way"

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According to Simone, 3G will give an immense boost to music content too. "Music content which includes CRBT, ringtones, full song and music on demand (combined) is the largest premium content market in India and as per our estimate it is expected to grow at the rate of 50 per cent for the next 3 to 4 years. Next, with the introduction of 3G this will increase only further", he explains.

If we had to play soothsayer, we'd guess that mobile TV will come up in a big way thanks to the huge data pipeline 3G promises. We'll see loads of special made-for-mobile episodes that will be 3 to 5 minutes long, created specially for mobile delivery. Quickly following moibile TV, advertisers will figure out how to adapt to the small screen format, because people will increasingly spend a lot more time on their handsets. We will shoot rich content, in higher resolutions, and be busy posting it all on the social networking site of our choice. Honestly, we've ceased to think "if" and are now only wondering "when?". Keep your fingers crossed, because all this could become commonplace in just a couple of years.

CULTURE OF CONNECTIVITY

Earlier mobile internet enthusiasts would download widgets or applications for accessing specific services online. So you would have an application for Gmail, an application for Yahoo!, Wikipedia, and so on. The trouble with going this way was that you constantly needed to switch between applications to use the services. We now have browsers (both native as well as third party) that give you a full internet experience so people are moving away from using widgets and dedicated apps to using browsers just like from their PCs. Most people prefer a third-party browser such as Opera Mini or SkyFire.

These displays almost all web pages exactly as they would be rendered on a desktop PC only scaled down for a smaller screen. Another similar browser is TeaShark or the newly released Bolt browser from Bitstream. With this new wave of always on connectivity, people with unlimited advanced GPRS plans a.k.a mobile internet enthusiasts will also go to random web sites like icanhascheezburger.com, failblog.org or the Photoshop disaster blog, and basically find various means to stay entertained. This includes getting on to you tube and watching loads of streaming video

Digit content planning wave
This is where we will collaborate on brainstorming with ideas for upcoming issues. Come, help us. Search by - with:public "digit content planning wave"

The Digit magazine wave
This is more like our chill out zone. Come hang out, play Sudoku, whatever. Search by - with:public "The OFFICIAL Digit Magazine Wave"

Surf's up

We've been on Google Wave for about a month now, and are enjoying it. Once you get past the thrilling, albeit unnerving experience of seeing people typing in real time, you are faced with your second problem. "What do I do next?", you ask, and we're here to tell you



With: Public?

After you login, you're going to ask, "So where are all these waves I heard about?" Just type with:public followed by a keyword for any area that interests you (photography, for example) and you'll see a real time list of all public waves on that topic.

Make a wave

Once you open the wave and click one, it'll prompt you to add new people to it.

Add people

Adding people to a wave is the simplest thing. Most people figure it out intuitively. Like many functions in Wave this one too is drag and drop. Simply drag your contact on to a wave's tab.

Edit and reply

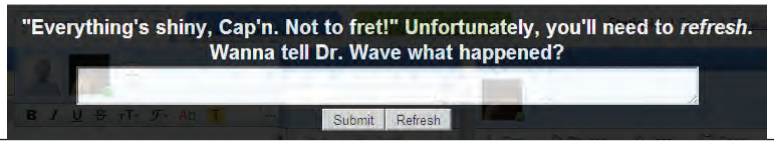
The beauty of a wave is the ability to reply with a comment on any part of the wave. Simply highlight some text on which you want to comment on and hit enter. This creates an in-line comment. If you wish to reply to an entire thread hit Shift + [Enter]. To edit a comment or main wave double-click in the wave and select the edit option in the menu that appears.

Create a public wave

Making a wave open to public is slightly tricky. Ideally you're supposed to add a robot whose address is public@a.gwave.com to your contacts and then drag it onto any wave to make it public. However, if you try to add the address via "add a new contact" Wave will tell you "User does not have a Google Wave account." The work around is simple. Find a public wave, look for the Globe in the people list and add the globe to your contacts. Now drag him onto any wave you want to make public. Come up with some interesting topic for a public wave and you'll find people pouring in.

Manage your Inbox

Jumping to any public wave will add it to your inbox. You'll eventually need to unfollow or even trash waves to reduce the clutter. Access trash through the three dot menu on the search pane.

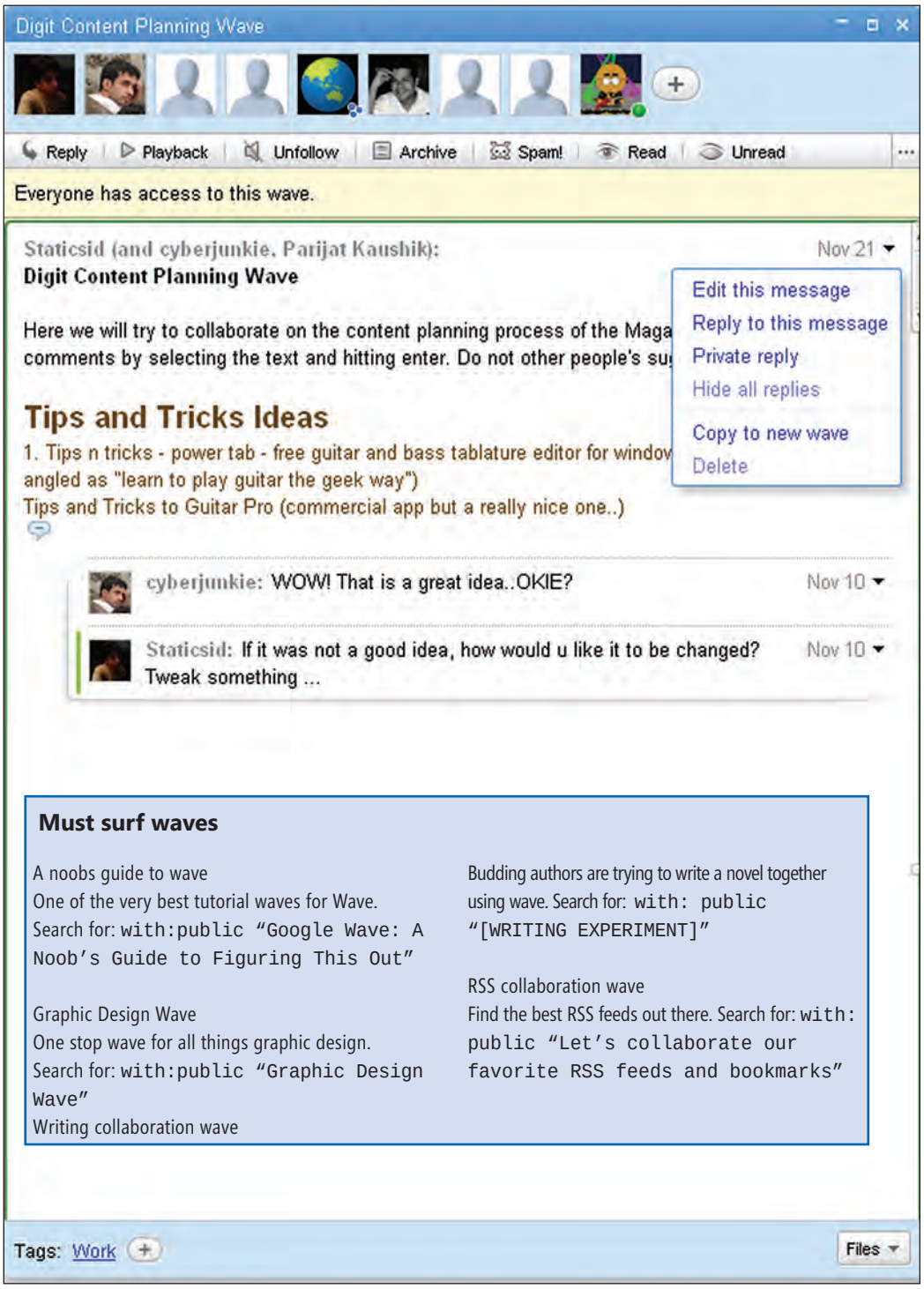


Playback

Often you will join a wave at a very late stage of development. This might confuse you as to where you should begin, since you don't exactly know the kind of discussions that have taken place till that point. Playback is a nice feature that will allow you to rewind and watch at your own pace how the wave has formed over time.

Add gadgets

Gadgets are extensions in Google Wave that help you increase the functionality of a Wave. By default your Wave client will have only the "Yes/No/Maybe" and "Maps" gadgets installed. The YNM gadget lets you take quick polls on certain matters. To add gadgets click on the more actions, three dots button (...) at the corner of every wave, when editing the wave. It will produce a drop down list from where you can add YNM and Maps gadgets. However there's a whole universe of Gadgets out there just waiting to be added to your wave client. To add more gadgets one way is to go to the gadgets galley which has Google's featured gadgets from the Dr. Wave welcome wave. Or you can click on the jigsaw piece in the same drop down list and add the URL of a third party gadget. For instance if you want to retro chat add this URL: http://tinyurl.com/ybehm6l.



Must surf waves

A noobs guide to wave
One of the very best tutorial waves for Wave.
Search for: `with:public "Google Wave: A Noob's Guide to Figuring This Out"`

Graphic Design Wave
One stop wave for all things graphic design.
Search for: `with:public "Graphic Design Wave"`
Writing collaboration wave
Budding authors are trying to write a novel together using wave. Search for: `with: public "[WRITING EXPERIMENT]"`

RSS collaboration wave
Find the best RSS feeds out there. Search for: `with: public "Let's collaborate our favorite RSS feeds and bookmarks"`

Gadget list at wavety

A great web site for finding new gadgets to add to your wave client is wavety.com. You have things like the brainstorming / mind mapping gadget, the jumble poetry gadget, and even a gadget to play Sudoku.

Very irritating

Apart from the fact that Wave is painfully slow and laggy, the scroll bar is the most irritating thing here. This is closely followed by no undo feature, works better with Chrome and the fact that you cant kick people once you invite them to waves. So if you add the public bot and make the wave public, you can't make it private again. Also Wave just shows you how many unread messages have accumulated in a particular wave but doesn't take you to them. It would be nice if you could simply jump from one unread message to another. We hope Google fixes these bugs soon.

Google's big WiFi Gift

Google gave away free WiFi to many American airports as a year-end gift, but we suspect this is a win-win situation

Berners Lee apologises

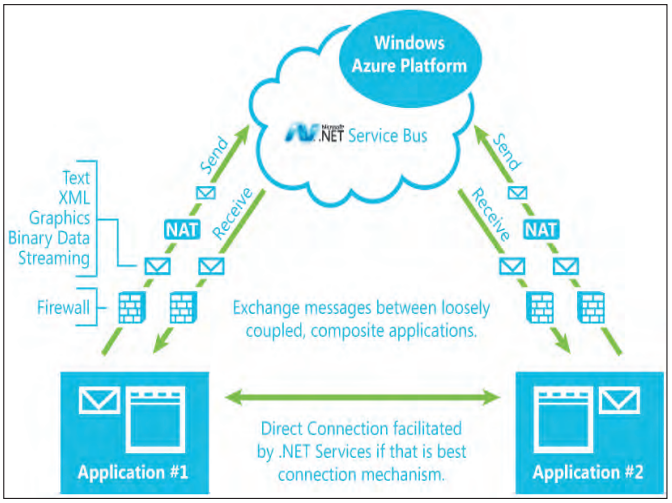
Tim Berners Lee says he's sorry for the inconvenience of the double forward slash in web site addresses, which he now says was not really necessary

Windows Azure on the horizon

Windows 7 is not the only recent operating system that was launched by Microsoft. Windows Azure is a variant that was also recently launched, and it is meant as a cloud operating system for web services. There is surprisingly, almost no media hype around Azure, and very few people have even heard of it, probably why there are few developers using the API and SDK to create web based applications for the platform.

Azure is a set of three products including Windows Azure, an operating system for web based applications, SQL Azure for handling databases, and .NET services which acts as a bridge between two Azure based web applications, which can interact with each other directly instead of interfacing indirectly through the cloud. The great aspect about this approach is that finally, software companies are coming out with products that are compatible with each other. This means that almost every new platform or service that comes out will be compatible with other platforms and services on the web, almost anything can plug in easily with everything else. Users can look forward to great mashups that consist of Microsoft and Google services for example. The few demos currently on the Azure web site proves this point. Twitri, one of the featured services, posts updates on Twitter, Facebook, and on e-mail, if you enter your flight information. High flying tweeple apart, the only other featured app is some kind of a race tracker. While not in beta stage, Windows Azure is open to the public for use till the end of January 2010.

We have been waiting long for the company that revolutionized the desktop PC experience to jump wholeheartedly into the web and dazzle us. A step in that direction is the Bing search engine, which seems to be making steady gains in the search engine share because of the supposed higher search relevancy, although many point out that this may simply be because Bing is two keystrokes short of Google.



The .NET Services that are part of Microsoft's cloud offering

thinkdigit.com Post your comments at http://thinkdigit.com/d/dec09/

Social engineers still own you

Leading newspapers around the world had headlines screaming out a major compromise in the accounts of Yahoo!, Gmail and MSN Live mail users. Various lists of compromised ids were hosted on pastebin.com, rapidshare and megaupload. Users were encouraged to change their passwords immediately.

Almost two months on, it would be fair to expect internet-savvy users to change their passwords. The sad truth is that despite all the publicity, a large chunk of the compromised accounts had passwords that still worked. This lead to a kind of mayhem that can be very troublesome and very personal.

It is not about understanding the protocols of the internet, or working some magic in the wires, it really never was. People are easily fooled, and security experts often cite them as the weakest link in the chain. The problem was that a lot of the usernames and passwords for the email ids was the same as the login details of a major social networking site - Facebook.

When the list was unleashed on a forum with the suggestion to wreck havoc on the Facebook accounts, a number of anonymous people went crazy, posting lewd photos on accounts, hijacking the accounts by changing the passwords, having conversations with the friends of the compromised accounts and so on.

Further, those who discovered that their Facebook accounts had been compromised had no clue of the origin of the mischief, and believed that someone in their own friend circle was responsible. There are little chances of legal repercussions to those who participated in the invasion, as they were from all over the planet. Most mischief makers didn't even use a proxy.

There are very simple steps that you can take to avoid such an incident from happening to you. Every time you enter a username and password, check the URL to ensure that you are on the correct site. If you get a mail that says your password for a web site has been replaced (Facebook is the most common target), do not click on the buttons no matter how close to the real thing they appear. Instead, cross check by going to the web site in question, and logging in.

Check Point empowers business to monitor web 2.0 use

Check Point is actively developing a security suite to address concerns of employees using social networking sites. This is not a simple matter of employees wasting time on web 2.0 services while at work, but a much deeper concern. A web 2.0 presence is an integral part of major companies, and Check Point offers software that makes it easier for companies to monitor the activities of their employees not only on Facebook and Twitter, but on games, widgets and other applications. Many employees have to interact with customers on web 2.0 platforms, and Check Point provides a way to ensure that mistakes do not happen, such as the notorious case where a Microsoft employee broadcasted architecture plans of the next Windows OS, code named Windows 8 on his LinkedIn status.

iKorea
South Korea, a 47-million user market, will soon get its hands on the iPhone



Lo Behold
Let there be a phone ! AMOLED screen, 5 MP camera and instant web connectivity. Samsung's newest baby Behold II might shake up a few things

The Android's shiniest soldier

The world's moving towards mobile phones. In fact, experts feel most of the content in the future will be driven significantly by the mobile industry. You'll find some interesting developments in this field...

We've told you about so many touted iPhone killers in the days gone by. But before you skip this piece as another such claim, hear this – this one may at least be the killer of all other iPhone killers if not the real deal. We're talking about the Motorola Droid. The phone has gained so much popularity since its recent release, that it will more likely be the general, and not just a soldier in the Android army. Many people were contemplating that the phone manufacturer would not be able to stay afloat in today's cut-throat smartphone market. But judging by its sales in the opening week of its launch, all doubts are put to rest. Apparently Motorola sold one lakh phones in the first week.

The device features the Eclair version (ver 2) of the Android operating system – the first phone to feature it. From initial reports, the Texas Instruments OMAP 3430 processor is giving the device all the extra juice that other Android phones lacked in the past. Being a smartphone it has a huge 3.7 inch screen and 5MP camera which can capture video at a resolution of 720 x 480. The phone is ever so slightly thicker than the iPhone and yet features a slide out QWERTY keyboard. This is sure to keep the hardware keyboard fans really happy, but the keys look flat and might not be very usable. Multi tasking ie the ability to run more than one application at a time is very important for a Smartphone. The OS has always supported multitasking, and finally there is a processor on-board this machine that should perform it seamlessly. Version 2 of Android allows home screen customisation with widgets that let you access tons of stuff simultaneously. From the hundreds of visuals available online of this nifty device, it looks like Motorola has outdone itself in the looks department too. The black body goes completely away from the rounded design philosophy that phones were going towards lately. We cant wait for this aesthetically elegant power device to fall into our hands.

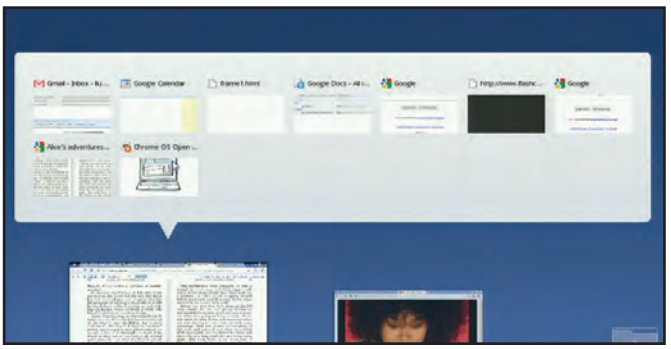
thinkdigit.com — To watch Chrome OS videos, go to http://www.thinkdigit.com/d/chrome/ — 'e Scan'



The Droid, featuring the Eclair variant of the Android OS

It's Open Chromium

Contrary to many web rumours, Chrome OS the path-breaking operating system from Google, is not just yet ready for launch. What it has however done is gone ahead and made it Open Source – its source code will now be available for download to anyone interested. So basically, the people at Google and external coders can now work on the underlying operating system at the same time, said Sundar Pichai, Vice President of Product Management. The why of this question is rather complicated, so we'll come back to it later. But in a gist it's a similar strategy



The Chrome OS

Safe driving

Messaging while driving causes a lot of accidents all over the world. Now there's an app that will read out SMSs to you while you're driving. It's called drivesafe.ly The only trouble is that the application is only available for Blackberry and Android. But worry not iPhone and Windows versions are coming soon.

Opera announces Opera Mobile 10 beta for Windows Mobile phones with a look and feel similar to the Opera 10 desktop browser and Opera Mini 5 beta | Apple tablet is

Lenovo Smart

With a view to promote smartbooks, Qualcomm's new Lenovo gadget will help users combine key features from smartphones and laptops



Triple assault

Nokia added three handsets, the Nokia 1506, 6316, 3806 to expand its CDMA portfolio. Of these 6316 seems to be the top of line with web browsing, music, imaging and GPS

adopted with Android. Being an OS for the portability space, Google wants users to be able to log on to the web as much and as quickly as possible and so in turn use the host of Google's services.

thinkdigit.com To watch Chrome OS videos, go to http://www.thinkdigit.com/d/chrome/

In a demonstration of the new Chrome OS at the Google headquarters at Mountain View, California, Pichai mentioned a few things that are worth noting. First, that the operating system is, as expected, a glorified version of the Chrome browser itself. The look and feel are pretty much the same, with just more eye-candy and features in the Chrome OS.

Also, the Chrome OS will work only on SSDs said Matthew Papakipos, Engineering Director for Google Chrome OS. That's right, no hard disks with moving parts will be supported. So if you planned on running this on your computer with a dual-boot system, think again! More importantly, Pichai said that the amount of hardware supported will be selective and Google will support only 'referenced hardware'. The company will be tying up with hardware manufacturers to offer the new Chrome OS on selected devices – netbooks, tablets, laptops or anything else. An open-source operating system on a closed line-up of devices? Irony, thy name is Google!

One extremely impressive factor of the demonstration was the boot-up time. From a cold boot on what looked like an Asus EEE netbook PC, Chrome OS was at the login screen in seven seconds. Google said it will take only another three seconds to be on the Web and browsing. Quite cool, that... Pichai stressed that the goals of Chrome OS are the same as that of the browser – speed, simplicity and security. The speed is obviously the reason that they are using only SSDs and not HDDs. To make simplicity a strong factor, the Chrome OS will be reliant completely on the cloud with almost no support whatsoever for offline usage. There will be no desktop applications available – none whatsoever! It's all in the cloud with this one, and aimed primarily at portability with devices like netbooks



A hacked iPhone

Hacked iPhone – Pay me or else

Apple's products, including the iPhone have always had this unhackable virus proof appeal. Yet a teenager (PureInfinity92) managed to do exactly that - hack tons of iPhones. Many users got this message on their phones "your iPhone has been hacked because it's really insecure! Please visit so and so website/iHacked and secure your iPhone right now". The teenager was however only able to only hack jailbroken iPhones and asked for $4.95 for instructions on getting rid of the message. Jailbreaking an iPhone is the technique used to be able to install third party applications on to iPhones. While this greatly broadens your reach to applications, this teaches iPhone users of the risks of Jailbreaking. It may seem like a cheap stunt or a mean trick but this goes a long way to educate users about using Jailbroken iPhones. The phones affected were mainly in the Dutch IP range. To be fair to the hacker this is what the hacker had to say in his original post - If you don't pay, it's fine by me. But remember, the way I got access to your iPhone can be used by thousands of others. And they can send text messages from your number (like I did..), use it to call (or record your calls), and actually whatever they want, even use it for their hacking activities! I can assure you, I have no intention of harming you or whatever, but, some hackers do! It's just my advise to secure your phone (: Have a nice day!)"

On screen keyboard?

With the iPhone, came the first somewhat usable on screen keyboard that didn't necessitate using a painful stylus. Till then most people were happy with the full QWERTY keyboards offered by phones such as Blackberry. QWERTY keyboards offer greater control and accuracy, while the argument for full touch on screen keyboards is that they help keep the form factor small and retain the design philosophy of the phone. Now there are two distinct factions within Smartphone user's market. One totally despises the other's philosophy and are mostly at war. There's even a small group that likes the traditional 12 button keypads. However we came across a research abstract that could spell a truce between the warring clans in the near future.

Strategy Analytics a research firm has found that consumers in both the US and Western Europe want a touchscreen keyboard on their next device, be it stand alone, or in combination with another physical keyboard. Respondents for the Strategy Analytics survey in the US favour a touchscreen combined with a QWERTY keyboard while those in Western Europe are most interested in a touchscreen only. Also despite strong interest in touchscreens and hybrid devices, a traditional 12-key keypad is still appealing to the Mass Market segment. No wonder the Omnia HD which we had with us recently, featured an on screen QWERTY as well as a 12 button keypad. "With interest in various keyboard combinations differing by segment, it is important for both device manufacturers and operators to offer a variety of keyboard options within their device portfolios." says the report.

still unofficial and yet it keeps getting delayed - how does that work? Ubuntu debuts Ubuntu 9.04 Netbook remix at the same time as the desktop edition

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Learn more about Facebook applications – from apps and games to professional utilities, all in one place

39 **TEDIndia 2009**
A Digit exclusive featuring TEDIndia speakers with all the tech extravaganza from Mysore

43 **In touch...**
Windows 7 is finally here. We look at how hardware around it would change

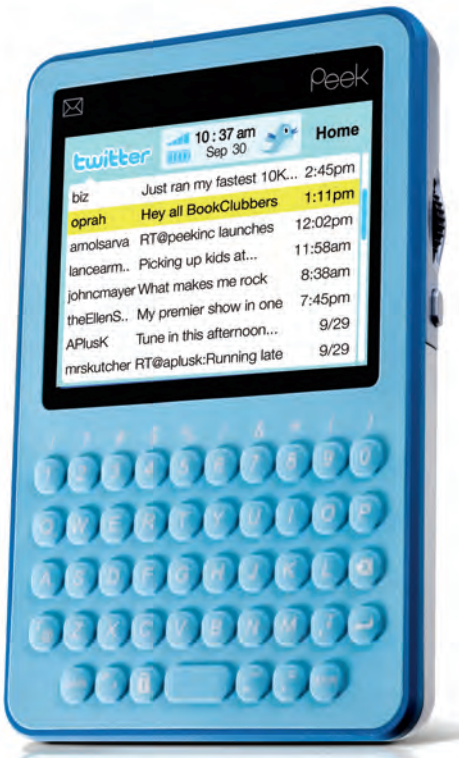


Motorola Aura Celestial Edition

The Motorola Aura was a deliciously expensive phone to begin with, and now they are coming up with a whole bunch of even pricier variants. The pick of the lot is the Celestial Edition, but the device goes a little deeper than adding a few dozen diamonds and gold plating. The Celestial Edition commemorates the 40th anniversary of Man's first mission to the moon. Earth received all transmission from the moon on Motorola equipment, and the phone comes pre-loaded with images and videos of the moon mission.

TwitterPeek

If you are one of those people who live in the tweetosphere, and are responsible for half the *trending* topics, then this is definately the gadget for you. A dedicated, real-world twitter client to keep you tweeting away to glory. The device has a full QWERTY keyboard, a screen, and is available in charcoal black and Twitter blue. What's more, for just $200 (Rs. 9,360) you get a lifetime's dedicated connection to boot.





Dell Adamo XPS

Looks like the Macbook Air has some heavy competition headed it's way, with the new desirability factor in laptops being how thin and light they are. The Dell adamo XPS seems to proudly sport just one feature - that it is incredibly thin at 9.99 mm - making it the thinnest laptop in the world, and half as thin as the Air. The keyboard is designed to "fold seamlessly into the display", and open with a finger. Packed in is a 1.4GHz Intel Core 2 Duo processor. You can pick one up at Dell.com, for 1,16,328, but they have an installment scheme of Rs. 5,024 a month.

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We've witnessed all the hype surrounding Blu-ray as a standard. But has it really caught up in India?

48 **Unwind at home**
A slight modification of your room would improve the performance of your home theatre system

51 **Online movies**
The legal online options for movie aficionados. Keep the pop corn ready!



Canon EOS 1D Mark IV

The race amongst dSLRs is now moved on to the low light sensitivity and video capabilities. Canon's latest entry into the Arena boasts of a 102,400 ISO rating, full 1080p HD video capture, and a staggering 45 auto focus points. At $5,000 (Rs. 2,32,750) one would expect a camera to at least have flash, but strangely enough, this one does not. However Canon has provided a great compensation, and we think it's the coolest feature on the cam – night vision!

Lenovo IdeaCentre B500

Lenovo unleashed the new Idea range of computers, with the IdeaPad laptops and the IdeaCentre desktops. The IdeaCentre B500 desktop looks like something out of those cheesy space-age interfaces for software, but when you have something like that sitting on your desk, it suddenly starts looking pretty aesthetic. Under the hood specs are not great, an Intel Core 2 Quad Processor, 8 GB DDR3, 1 TB HD Space, and a "discreet graphics solution" – good enough for a great multimedia experience and some mid-level gaming. All yours, at a very reasonable price of Rs. 35,000.



digit
Watch out for next month's Drool maal, when we'll feature concept gadgets that promise to change our future



Facebook Lite
A version of Facebook that makes it easier for those with bandwidth problems. Lite allows just the basics like Photos and Events

Tagging friends
You can now "tag" friends or companies that you have mentioned in status updates simply by adding the '@' symbol before the name

Featuring Facebook

Social networking web sites such as Facebook aren't always about wasting your time. There's a lot you can do with it. There are apps from games to professional utilities – all at one place...



Illustration: Chaitanya Surpur

Madhusudan Mukerjee
readersletters@thinkdigit.com

A significant shift has occurred in social networking trends among the Indian youth over the last one year: almost everybody who ever had an Orkut account now has one on Facebook – and few have even opted out of Orkut altogether. Over the last four months, the number of active users of Facebook has more than doubled and July 2009 saw more than 3.2 million Indian users. Comscore, the internet marketing and research company, says 68.2 per cent of the time spent by Indians on social networking, was spent on Orkut. But just ask your friends and family about which hangout they prefer while on the net and you'll probably find the Comscore results surprising. Let's face it: for a growing number of Indians, Facebook is the new Orkut.

One reason for Facebook's growing popularity is its aggressive marketing strategy. Facebook has ensured it stays visible in the media through tie-ups with various major companies such as Aircel for mobile internet services, Vodafone (and their ZooZoos) for free access to Facebook – with all its pokes, updates and egg sending – on your cell phone, and Viacom's MTV (India) for 'Celebrity Connect' – finding out which celebs you resemble. Its failed attempt to buy Twitter, and the recent acquisition of FriendFeed – has also helped to keep it in the public eye.

The other reason is that it's packed with dozens of unique features, an immensely interactive, instantly gratifying and deeply interesting range of applications (or 'apps'), and surprising tweaks that let you have fun while being in constant touch with your friends and family. Let's take a peek at a few of the things that you could do on (and with) Facebook to bring the 'social' back into your network and to make it more exciting, entertaining and cool.

Applications

Log in to Facebook.com and take a good look at the bottom left corner of the screen. You can't miss that little button on the toolbar, which says f applications. On the f applications toolbar, click on the link that says 'Browse More Applications'. This will open up a Pandora's box of applications for you to choose from.

Games

We'll start this quick tour of applications with a look at three of the most happening games on the Facebook site, in order of popularity.

Farmville: While about 62 per cent of the Indian population is actually employed in the agricultural sector, all of a sudden, the population of virtual farmers has boomed, thanks to Farmville. This online game in which anyone can set up and cultivate his/her own virtual farm has nearly 35 million users and is definitely the most popular game on Facebook.

Developed by Zynga, San Francisco, it allows you to become an online farmer – plant, grow, harvest and sell crops, buy or breed livestock – to earn 'coin income'. Each crop requires a few hours to grow (Tomatoes need eight hours, Raspberries need two, sunflowers need 23 and so on) and each give you an XP (short for experience).

The more crops and trees you plant, the more experience you earn. Farmers can invite other Facebook friends to become neighbours and send special gifts according to the level. Access to which crops you can grow depends on the number of points you've got – and therefore, which level you've reached in the game – pineapple seeds, for example, are only available to you once you reach level 15 (Professor of Agriculture) having gathered 4,500 points.

Prototypes

Facebook Prototypes is something like Google Labs. It allows you to access and use some experimental applications – or 'product experiments' – to check out if they're popular or if they work at all

Voice Chat

Vivox – the Boston based company that gave integrated voice chat to Second Life is all set to roll out high quality voice chat services in Facebook

Mafia Wars: This is a multi-player browser game that's on MySpace and Tagged as well but has an incredible 23,367,984 monthly active users (and growing) on Facebook alone. This is another hit game by Zynga, but unlike the slow, domestic space of Farmville, it encourages you to loot, rob, kill and create an Al Capone like empire. Set in New York City, Little Italy or Cub, players must choose a character, do jobs to earn cash, build a gang by recruiting members and fight other mafia conglomerates – all with limited stamina, energy and health



Every character has its own speciality

As in Farmville, you can 'level up' by getting more points and gaining XP by doing more jobs. As you rise up in levels, you are rewarded with access to new features, new weapons and new jobs.

MindJolt Games: More than 50 games clamour for your attention on the MindJolt Games application. Prevent balls from reaching the bottom, break up brick walls, play pool, destroy balls in combinations of three – there are innumerable options to choose from.

If you get bored of getting shot up in Mafia Wars, turn to MindJolt for several hours of unlimited gaming pleasure.



Crazy Taxi is one of the fun apps on MindJolt

There are other funky hangout games like Yoville and Living Social, which let you interact with friends and contacts in entertaining ways. Don't forget to check out Pet Society, another game application that contains plenty of games and decorations to play around with.

Utilities

Here's a list of some useful application in Facebook:

NewsCloud: This is a social news application which allows you to discuss socially relevant issues, aimed at gaining solidarity for particular endeavours and movements. You can vote, read, submit or comment on stories right from your Facebook account. Every story you post earns 10 points, a vote gets you 5 points and sharing a story or inviting a friend gets you 25 points each. Newsfeeds are a part of this application. You can also access videos from reliable news sources here.

App Builder: About 5,00,000 people have used this one. This is the most interactive application on Facebook which gives every user a chance to feel like genius. If you've got a great idea and you think people will like it, just transform it into an application, sit back and watch how you can change the world using Facebook.

Files: This is a storage service from Box.net that allows you to upload and store files directly from their profile. Although it's just 1 GB and doesn't even compare with remote storage facilities like MSN's Skydrive, this is useful if you want to display these files on your profile. Friends can then download these files. This is really easy to use, but these files are visible to all your Facebook friends and you may not really want everyone to see them.

Pixlr Editor: Pixlr is a free, Firefox-powered online photo editor. Whether you want to upload new photos or edit older ones, Pixlr is an excellent application to help you through the process. Anyone who's accustomed to Photoshop or Paintshop will find the interface smooth sailing. Alternatively, you could use the Pixlr Express to crop, resize and juggle photos around with ease.

DandyID: With accounts on services such as Twitter, Flickr and MySpace, and more or less the same set of friends on the list – and you're getting bugged with the repeated logins and updates. DandyID has the answer to your woes.

This is an application that will synch all your accounts and display them on your Facebook profile.

Positive Thoughts: Send a positive thought to each of your friends every morning using the Positive Thoughts application and make their day. While not all of them are in English, they're all deep, philosophical, bright and cheery. Try it out and get cheered up yourself when your Facebook friends write in to thank you.

Business

Social networking gives you access to all your contacts. Although not comprehensive, here's a list of business applications on Facebook that can fire up your business and ensure better brand recall without the prohibitive expenses of an advertising campaign.

Promotions: Facebook Fan Pages are full of potential customers who stay online for prolonged periods on the site discussing everything about their favourites. Any agency or company could cash in on this by putting their advertisements on the fan page.

Promotions for Fan Pages lets you do just that. You could use it to create and launch marketing campaigns in a few minutes using the simple, user-friendly interface of this application. These must be interactive and in the nature of lotteries, contests, coupons and discount tickets. Lately, Facebook has begun to scrutinise these – especially the promo-quizzer – and are set on shutting any agencies that appear to abuse this feature.

Tag Biz Pro Business Cards: Use Tag Biz Pro to create a life-like business card form a whole range of features to set up a business network on Facebook. You can attach your business 'card' to all your



As big as a country
According to Facebook CEO Mark Zuckerberg, there are over 300 million Facebook users, close to the US population of 307 million



Saving Lives
A teenager in the UK was saved when he announced his suicide attempt in a Facebook conversation, in April 2009

Facebook messages and pick a keyword which is then displayed in a business keyword tag on your profile page.

SlideShare: Now you can hook up your favourite presentation-swapping web site to Facebook in such a way that it automatically uploads to SlideShare, Facebook and LinkedIn at the same time. And it's not just for your presentations. The site supports PPT, PPS, PPTX, ODP, PDF, DOC, DOCX, ODT, Keynote, iWork pages and even allows you to embed YouTube videos on your profile page. This could be of great help if you want to exhibit the unique selling points of your business enterprise or you want to showcase your own skills.

InSide Job: This application helps you to find and communicate with Facebook users based on their old job, where they had their last interview, or who they are currently working with. You can then get the inside information about these companies and make an informed opinion about a prospective employer. You can also find the right employee, find a job or advertise a vacancy in your firm.

Memorable Web Addresses: Here's an application that's so useful that one wonders why no one thought of it before. It's a free application that allows you to create a direct link to your Facebook profile page, choosing a name of your choice. So you could create a link such as `http://profile.to/YourName/` or even `www.profile.to/YourName`, thus making it easier for friends or contacts to search and finds your profile with just a few clicks. Only thing is that you'll need to hurry because this has been catching on and already has more than a million users.

Wildfire: This application allows companies to conduct marketing campaigns on Facebook for as less as $5 and as much as $250. It encourages users to visit your Facebook page, interact with it and then share the results with your friends, leading to even more publicity for your brand.

thinkdigit.com Post your comments at http://thinkdigit.com/d/dec09/ POWERED BY e Scan™

Entertainment

Anybody who's using Facebook knows about the apps that are most entertaining like iLike and SuperPoke. We've listed some of the popular and some not so well-known entertaining applications that can make life with Facebook more colourful.

Music by iLike: This one allows you to add a music tab to your profile, create and share playlists with your friends, receive concert updates, and participate in DJ contests. It's already got about 10 million users so don't hang back.

Bumper Sticker: An incredible range of typical bumper sticker blurbs abound in the Bumper Sticker application which allows you to view, share and use stickers on your profile and those of others. These are virtual stickers that range from the comic to the bizarre. A must-have application.

Caricature: Choose a picture of your friend, apply the kind of treatment you'd like to give it, and there, you've got a caricature. You could post it on his wall or share it around with friends. There are a couple of other applications, which do the same thing (like Get My Caricature), and you could try those too. The effects are pretty hilarious at times and you could add this application just for kicks. Just be careful what pictures you choose to make a caricature out of unless you don't mind getting your kicks in the real world too.

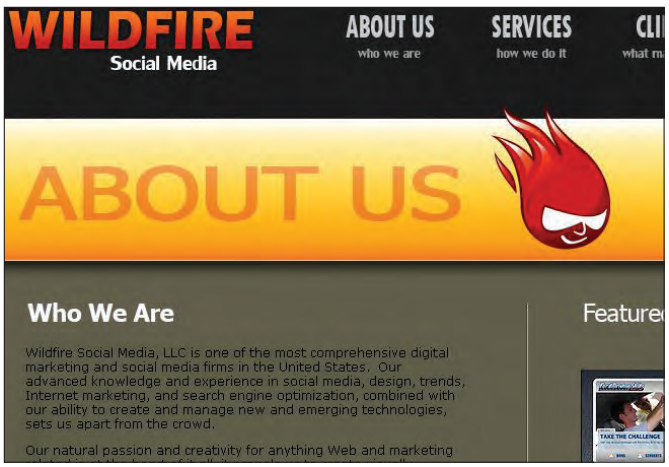
Sketch Me: For more sober representations, opt for Sketch Me. You can choose how dark you'd like your sketch to be and then publish it for your friends.

Flixster: Flixster allows you to check out who likes the same kinds of movies among friends, post and read reviews of the latest movies, find new movies that you'd never have heard about otherwise and check your knowledge of movies.

Quizzes: People just can't stop taking quizzes on Facebook. These quizzes range from being sensible to funny. You can spend years answering all the different quizzes created by users. Add this application to find out which *Sex and the City* character you are, whether you resemble Maya Sarabhai or Sahil Sarabhai more, who you were in your past life, etc. – there are too many to cover here. If you're really busy, skip this one. On the other hand, if you want to act busy at your computer, this is the one for you.

My Plans: Organising a party or get together is usually dependent on innumerable calls to friends or family and often, by the time you end up making a concrete plan either your cell phone battery has run out or you've used up all your talk time. Try My Plans on Facebook that allows you to notify, share and discuss meeting plans with all your friends and family who are on Facebook, making the task a whole lot easier.

So that rounds up our list of six-pack applications for Facebook. Apart from applications, there are other cool tweaks that can enhance your interactions on Facebook.



Spread your brand identity with Wildfire

thinkdigit.com news

Sony confirmed reported rumours about updates to the PS3 firmware, via a post on the official PlayStation Blog. With this update, PS3s can be integrated with Facebook. Read the full story at http://www.thinkdigit.com/d/psf/



Indian aesthetics and values are shaping and giving rise to new ideas and trends in the fields of technology and design – cheap, eco-friendly, and for those at the bottom of the income pyramid

TED Tribe comes to India

Sriram Sharma
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An international clique of 40 highly accomplished bof-fins, raconteurs, artists, and technocrats assembled at the Infosys campus in Mysore on November 4th to give an 18-minute talk, which in all likelihood, was the speech of their lives.

The TED Talk format tries its best to be some kind of band-aid for a generation of Twitter-addled, fragmented minds, and has its own ten commandments, asking of its speakers not to trot out the usual marketing schtick – no sales pitches or selling from the stage, but to dream a great dream, and dazzle the audience with something never seen or shared before.

With millions of viewers watching these translated talks over the internet, the ideas discussed at TED India will resonate throughout the world. Behind the scenes, though, it was at the TED U sessions, (kind of an open-mic session of shorter talks for upcoming speakers) where some incredibly innovative ideas were aired.

"The stories we tell ourselves define us and our potential," said Shekhar Kapur, in his talk. It was Ramachandra Budihal, a 'techno-heritage imagineer' who captured the spirit of the event. "We don't enter the future, we create it. And we create what we imagine," he said.

TED's popularity owes much to the zest and energy of its videos – a combination of rhetorical discourse, laptop-powered techno-wizardry, slides and visualisations that shatter popular myths with stats, counter-points and analysis. Wit is a pre-requisite to be a TED superstar. statistician Hans Rosling, who gave the first talk at TED India is destined to be a classic. His software, Gapminder amazed Google so much that they purchased it after seeing it demoed at a TED conference in 2007.

The most popular videos to come out of this meme-plex include the Sixth Sense augmented reality demo by MIT whiz-kid Pranav Mistry. Steven Pink-er's lecture on the myth of violence that argues we're living in the most peaceful time of our species' existence, and Hans Rosling's lecture, told in the style of a TV weatherman that narrates how the whole of humanity, the third world included, is getting more educated, rising out of poverty, and seeing greater life expectancy.

Changing world-view

Google gave away a whole-Earth catalog inspired designer patch to all TEDsters



TED talks to Digit

To get a closer feel of TED, read our discussion with Lakshmi Pratury, co-host TEDIndia 2009

When asked about his favourite TED videos, Chris Anderson recommends Dan Gilbert, a Harvard psychologist's talk on happiness that suggests "We synthesise happiness, but we believe happiness is a thing to be found." This revelatory piece of pop psychology goes on to explain that choice is an enemy to our innate sense of happiness, and that our psychological immune system works best when we are trapped. "We are really bad at knowing what will make us happy," he said.

The event granted free entry to 103 TED Fellows - young visionaries born or working in South Asia to even out the demographics a bit, which usually veered towards "fat, white, North American and over 40," quipped Tom Reilly, the Fellows Director. TEDIndia Fellows are, according to web site, "A diverse group of men and women... Engineers, environmental scientists and pollution experts, human-rights activists, musicians, athletes and filmmakers."

One jolly-good fellow, Gyanesh Pandey had left his cushy job in the semiconductor industry in LA, to electrify 5,000 households in 30 villages in his native Bihar, using rice husk, an agricultural waste. Viraj Puri, CEO of Gotham Greens is creating rooftop farms in New York. MIT Alumni Kamal Qadir, CEO of CellBazaar.com has introduced a mobile-phone based electronic marketplace in Bangladesh.



Shashi Tharoor, Minister of State for External Affairs was among the speakers to address the audience at TEDIndia 2009



Pop singer Usha Uthup entertained the audience after the daily sessions

"We come from a land of insight, intelligence and spirituality. It would be a tragedy to lose an entire generation to the goal of financial success," said Lakshmi Pratury, who co-hosted the event with Anderson.

Pratury said she's optimistic about the prospects of Indian youth, and that we need to encourage their spirit of creativity and innovation. "We need to push our kids into economically sustainable fields; we need writers, journalists, artists too. We need to let our children figure out what they're good at, and create professions that suit them."

TED has diverged from its core fundamentals of Technology, Entertainment and Design, its scope has grown wider, and is now a culture-jamming network for artists, free culture activists, social entrepreneurs and self-improvement gurus like Anthony Robbins and Sadguru Jaggi Vasudev. What is technology, anyway? Is it just silicon chips and software? One could argue that yoga is an open source technology for self-optimisation. An TED talk by Noah Feldman reflects on how both politics and religion are technological frameworks.

However, there was plenty of core technology on offer, not just from the speakers but also from the 103 fellows, and the 800-strong audience. Here are some of the trends – ideas that came from India and could some day shape the rest of the world.

Technology

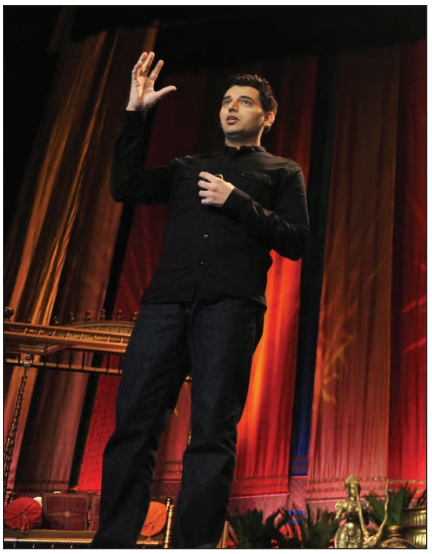
MIT whiz-kid Pranav Mistry, and digital-historian Ramchandra Budihal, dazzled the audience with a cypherpunk vision of future, augmenting reality using hardware that was cheaper than an Apple iPod Touch (less than $300). While Pranav Mistry's SixthSense interface uses a pocket projector, a mirror and a camera, Budihal's E3iT system uses a head-mounted camera and goggles.

Going solo in his latest demonstration, he explained how he used the scroll wheels from a ball mouse to create an interactive 3D claw-hand user interface for just two dollars; less than a hundred rupees. "This is what we learnt from India, there is a lot of energy in the scene. I was more excited about taking the technology to the masses." Pranav told Anderson in a post-demo discussion, where he famously declared that he would go open source with his software in a month.

A Nokia employee who spoke to us later that day said he wasn't convinced if SixthSense going open source would have a disruptive influence to the world of consumer electronics. Given the variables and the monopolised tech landscape



Hans Rosling, known for the GapMinder bubble graph making a point during a morning session



Watch Pranav Mistry's presentation at TEDIndia 2009 in Mysore at tinyurl.com/TD0912PM



Budihal manages to augment reality with E3iT (Engage, Entertain, Educate, Immerse Technology)

today, it seems true. 3M's MPro 120 VGA pocket projector costs around $350 as of now, but that could change in a few years.

The mobile computer needs something similar to a PC revolution, where consumers can customise their mobile hardware, choose a chipset, RAM, and battery out of easily available parts. There's a Tegra chipset the size of a RAM stick, which on the Zune HD consumes less than 300 milliwatts of power, while rendering amazing graphics and HD video. Like everything, such movements start from the fringe, who knows where this could take us? Will the stringers of the future wear cyborg-chique gear and get paid for their live feeds? Allow me to regale you with another nugget of wisdom from a TED talk: The computer was dreamt and conceived of centuries before we achieved the means and the technology to develop it.

Budihal's system, which he called E3iT (Engage, Entertain, Educate, Immerse Technology) can be worn like a pair of goggles, and takes the user into a virtual reality tour. His theme was Digital Hampi, where he overlayed historical monuments with a layer of interactive data. "We are trying to explore the possibility of using human computer interface technology to explore the past." he said.

Scott Cook, founder of Intuit, demonstrated how farmers in India were able to net 20 per cent more income by tapping into local data about market prices on their mobile phones. It takes years for them to get that kind of growth, but a simple, low-end application created by his group had enabled them to reap higher profit margins.

TED India fellow Sean Blagsvedt runs a start-up out of Bangalore called Babajobs.com. The web site connects job seekers from the informal sector to employers. Using a mentor-based system, friends, relatives, NGOs, and cyber-café operators can socially network maids, cooks, drivers, and child-caretakers, give them a positive reference so that they can apply for nearby-jobs using mobile phones. The web site lists 3,09,716 jobs and 58,268 job seekers thus far. We checked the web site twice in the span of three days - it had added 1494 jobs, and 500 job seekers.

We asked Sean what was the biggest ideas he had taken from TEDIndia. He cited Anil Gupta's presentation on rural entrepreneurship. "The elites are not the only ones with innovative ideas with spreading. We must determine more ways to showcase



Each day had its dose of entertainment

Photoshopped Nano
An obvious Photoshop job, showing a car driver in a TATA Nano going to his owner's house, was sold as fact by Malsekhar

Incubating lives
Banny Bannerjee's $25 incubator could transform lives in the rural world and reduce infant mortality rates

innovations from the poor and let them spread into viable businesses to help the base of the pyramid." He said.

Entertainment

The first session of TED India was broadcasted live on the internet. Hans Rosling and Devdutt Patnaik both gave spirited talks that had the crowd on their feet. Both seemed destined to be TED classics. This feel-good trip almost reached burnout levels when Usha Uthup came on stage. Half the crowd was in tears when she did a medley of an Arabic song, followed by an Israeli number – what with her joyful gait, big puppy dog eyes, magnified by plus power glasses.

It was the perfect demonstration of the built-in empathy circuits in all of us, which neuroscientist V S Ramachandran had spoken about a day before. Mirror neurons in our brains are fired when we see someone perform an action – dance, play music, or slip on a banana peel. "It's only because of a constant feedback from touch receptors that the human brain is able to differentiate between self and others", he said.

Like a Bollywood movie, song and dance were essential ingredients of the TED conference. There was plenty of comedy as well. In his talk about ancient water conservation techniques, Anupam Mishra humbly requested the audience to turn off their internal spell and grammar checks for the duration of his talk. He spoke in vernacular, but made the crowd laugh throughout, with superb wit and timing.



Noted Director and Writer Shekhar Kapur tore his notes before stepping on the stage at TED

Design

Design for extreme affordability - Gandhian Design was the mantra that resonated on Day 1 – "More for less, for more." said Raj Malsekhar, in an inspiring talk where he spoke openly about his poverty, and how an educational scholarship given to him by the Tata group was the ticket out of his humble origins.

You'll find a detailed article on SixthSense in the May 2009 issue of Digit. Pranav Mistry is also among Young Indian Innovators featured in our October special.

From the Jaipur foot to the Tata Nano, India has always been an incubator for low-cost solutions. Anil Gupta's talk on rural innovations showcased a $1 non-stick pan made out of clay, a pedal-driven bicycle-mounted washing-machine, and a mobile grain grinder created by a villager to grind meagre quantities of cereals for the poor.

Banny Bannerjee, a design professor from Stanford showcased a low-cost infant baby warmer that costs 1 per cent of what incubators in the hospital do. This $25 baby incubator does not require electricity, and could save millions of lives in India and the rest of the developing world.

Murray Freeman, a new-age Thoreau, shared his architectural solution for low-cost housing in squatter cities. He had constructed a three floored 3,000 square feet dwelling in Bangalore out of pallet racks used in warehouses for Rs. 6 lakhs. According to him, pallet racks are cheap, durable, stackable, and can be assembled or disassembled in a couple of days, leaving a minimal imprint on surroundings. He has also conceived the idea and is developing the courseware for a One MP3 Player Per Child program, and runs a company in Bangalore called Upstart, which invests in know-how and does seed funding in web startups like Ycombinator.

A talk by Guy Spiers stressed on the importance of checklists as a personal organisation tool. He had lost his wallet in New York City cabs thrice, despite his self-professed genius and academic credentials. His life improvement suggestion? Use checklists - they have drastically reduced hospital infection rates by drilling hand-washing rituals into doctors; there was a checklist which outlined what to do in the event of an airplane crash. (It's a long bullet point checklist that should be followed to the T) and more how using one yourself could help you prevent losing your belongings. He has never lost another wallet again.

Other design ideas came from the TED goodie bag: sadly, there were no iPods or iPhones – it was more Gandhian in that respect. Horst Rechelbacher, an ecopreneur and founder of Intelligent Nutrients, gave away a nutritious lip balm made out of herbal food ingredients. The package proudly displays its eco-friendly logo credentials – no animal testing, manufactured with 100 per cent Certified Renewable Energy, Certified Organic. "Everything we put in and on our bodies must be nutritious and safe" says a quote by Horst on the package. The lip-balm costs $10, probably ten times more than petroleum jelly versions, but has a great pitch: it makes kissing more nutritious!

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For those of you who want to see what happened at the TED India conference, watch out for our DVD in January, which will contain a lot of videos from TED Mysore.

There was plenty of India shining at TED India; the speakers were full of choice anecdotes that are par for the course for email forwards on Independence Day. All this pride and congratulation begs the question - is TED coming back? TED India's first event at Mysore was a celebration of India, but now that we are done with the 101s and the introductions, we need more insight, less inspiration next year We're Indians, and full of it, anyways.



Covert help

Apparently NSA (National Security Agency) America's premier security agency has been helping Windows 7 strengthen its security measures.



Wind Top

A new machine from MSI's Wind Top line has just been released. It's based on the ION chipset and features a 21.5 inch multi-touch screen



With the launch of Windows 7 and its much vaunted touch functionality, we'll be seeing a wave of new touch interface gadgets like tablets and PCs built for the new OS. Will Windows 7 change the way gadgets are designed?

Siddharth Parwatay
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7 In touch... with tomorrow

Windows has for long been the platform of choice for a vast majority of the modern world. It has a lot of elements working in its favour, when compared to say Mac or Linux. The OS is hardware agnostic – within reasonable confines, it will run on any hardware you put together, and you can actually run nearly all applications created including games without waiting for a OS specific version to come out. Another major benefit of the Windows ecosystem is diversity – PCs come in all shapes and sizes.

Since October 22, when Windows 7 was officially released to the world, a lot has been said about the all new OS. Now that the dust has settled, we agree that Windows 7 is way better than Vista. A clear indication of this, is the way 7 is selling, despite it still being the early days of its launch, as compared to the sales of Vista – 234 per cent higher according to research firm NPD Group.

Windows 7 is an operating system that many have hailed as one that quite simply does what it is supposed to and with all the visual eye candy that people expect from operating systems of today. Yet, it has maintained the spartan feel of a robust OS that can be customised for performance according to the hardware that you run it on. Surprisingly, it runs as fast even on some machines of yesterday compared to Windows XP, the last half decent release from Microsoft. Half decent because it still needed a service pack or two to iron out all the creases. With the launch of Windows 7, many users will probably be changing their operating systems for the first time in five or six years. Those that will be moving up from XP directly have surely only heard of the horrors someone or the other has faced with Vista and in the process are entirely skipping 7's younger sibling. The new OS is so light in fact that we are running it on an old legacy machine that has a single core processor and barely five hundred megs of memory. Yes, this is probably the first time we have a Microsoft OS that can run on a lower configuration than its predecessor. Of course, on such a system you can't imagine doing Aero and some of the other bells and whistles; the classic mode sure comes in handy. The fact that it is light makes it an ideal operating system to enter the portability arena on top of the Atom processor. Reportedly, the OS devours less battery power too when running on portables.

Strangely, the journey to develop Windows 7 has not been an easy one for Microsoft. They enlisted a legion of testers, looked at a horde of usage sessions from previous versions, took a long time and resources to realise something that any average user can tell you within minutes – we just want an OS that is fast, light, boots quickly and does what it's supposed to do. Well, no matter the long and arduous

Enterprise friendly
Thanks to Vista, IT managers are now familiar with terms such as Device Manager, Services and Control Panel

Surface parody
Watch the hilarious Surface parody where they poke fun at the ten thousand dollar table computer from Microsoft.
www.thinkdigit.com/d/surface/

journey, they've probably got it right this time. Or so it seems...

What's new?

Some of the best features that Windows 7 offers include Aerosnap for smarter window management and usability enhancements such JumpLists, taskbar enhancements and ubiquitous search. An all new Media Center adds to the appeal of Windows 7 as the new OS of choice for HTPCs. Yet one of the most talked about features of the new OS is the new multi-touch capability. Microsoft's love affair with touch began long ago with surface, the multi-touch, multi-user, projection-based tablet that has applications in the high end entertainment and retail space. But this is the first time multi-touch is being embedded into an operating system that is accessible to the masses.



Windows 7 brings in touch interface capabilities, and is set to change the face of desktops

Touch hardware

The prospect of touch and particularly multi-touch has always evoked a certain thrill for all of us. We've been seeing such technology in science fiction for ages; right from ***Star Trek*** to fancy hand gestures in ***Minority Report***. Microsoft's Surface that debuted in CES 2008 fired up viewers imaginations as to the applications that the table top device can have. Windows 7 has finally made this somewhat of a reality by bringing multi-touch to personal computing.



"Both Surface and Windows had worked collaboratively to bring Surface and applications to the Windows 7 PC experience"
Rajiv Popli, Director, Windows Client, Consumer & Online Business, Microsoft India

With its full multi-touch capability, Windows 7 will perhaps sow the seeds for a whole new set of devices and applications in varied form factors from desktops to different designs in the portability space; from netbooks to tablets.

According to Rajiv Popli, Director, Windows Client, Microsoft, the journey to touch began from an endeavour towards simplicity. "This is the first time we've got multi-touch available to a larger audience. And the form factors we'll be seeing in the touch space will be truly exciting. We've now brought the technology to a level where the adoption will increase due to the kind of applications that can be built on top of it. The ease makes it potentially pervasive. More and more OEMs are building PCs that make use of this technology," he adds. The first of these Windows 7 touch products are already out from the stables of hardware manufacturers such as HP and Dell and if the grapevine is to be believed then the newest entrant will be Acer.

Of Atoms and Ions

Windows 7 being light is Atom friendly. Still the processor is not beefy enough to run fancy graphics. Enter NVIDIA's Ion Platform. We spoke to Igor Stanek, Product Manager for ION / notebooks, EMEAI region from NVIDIA to understand how this works, and enhances the Windows 7 experience. "Our story with Windows 7 is all about CPU and GPU harmonics. The CPU operates on very complicated sequential codes, while the GPU operates on massively parallel operations. Windows 7 uses this untapped power of the GPU, in this case the GeForce 9400M. If you were to encode video on an Atom processor, you would take about 7 hours for a movie. The same on Ion will be done in real time – one and a half hour, thanks to its 16 cores", he said.

The GPU is no longer just for graphics. In Windows 7, the CPU and the GPU create a co-processing environment. What makes this co-processing possible is one of the most significant additions Windows 7 brings – DirectCompute which enables applications in Windows 7 to take advantage of GPU computing to accelerate applications. "Try Loiloscope – the fun video creation application which supports our CUDA architecture." says Igor.

A lot of manufacturers are working with touchscreen devices and the possibilities with the Ion platform with Windows 7 are limitless. The platform features lower power consumption, runs cool and still gives incredible compute power. Perhaps the new generation of imminent full touch tablets have found their perfect engine.

Revolution...really?

While touch sounds exciting, before getting carried away, we must ask ourselves, is touch just a gimmick? Or is there some functionality to it? So far whatever we've seen in the market based on earlier operating systems without multi-touch leaves you with the same nagging doubts. Microsoft's Surface for example, although multi touch, has applications in novelty environments like entertainment kiosks or airport lounges, and is not accessible to the ordinary consumer. The other instances of touch PCs based on Intel's Intel Classmate PC concept are mainly learning aids for kids. Net-tops such as the Asus Eee Top (also earlier based on XP) can't possibly be conceived as something that can be used in day-to-day computing. They're something that can at best be a second PC or a "Kitchen PC" as they are popularly being called; meant primarily for viewing purposes. So in effect they remain some what of a novelty. With multitouch what will change remains to be seen.

Touchy issues

It's great that touch has been incorporated into Windows 7 but it's not really woven into the DNA of the operating

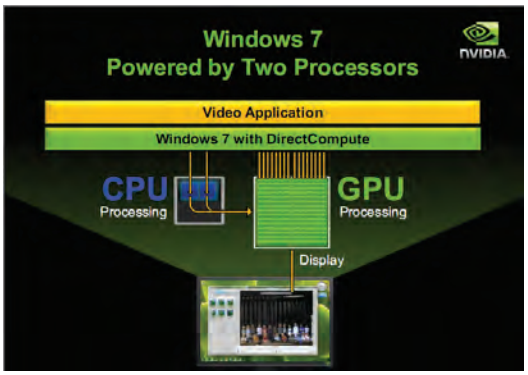
system. We were speaking earlier about the iPhone and how it's beautifully achieved the status of the numero uno touch device even today. This is because the device was built with touch in mind. Thought went into things like contextual menus and design elements like big buttons etc. Windows on the other hand has always been a mouse and keyboard interface. Now multi-touch is simply being ported to the OS.

According to Popli, the two platforms simply can't be compared. "Yes, for the iPhone the whole device was itself built around touch functionality. But one is a phone while here we're talking of a PC operating system. We have a billion users and we're not expecting a billion users to move over to touch functionality over night. Not every PC has to incorporate touch. But touch can and will greatly enhance the user experience." he said.

So basically all your basic mouse functions like clicking or scrolling are mapped to the touch interface. But the mouse is surely more precise at doing most things than fat old butterfingers, especially on an operating system that was designed for the pointer.

There are a few gestures that work universally throughout the operating system, which applications get automatically as a result of mapping mouse gestures or presence of scroll bars which are mapped to the mouse wheel. These include two finger scrolling or zooming via pinch gestures (ala iPhone), and right click via pressing and holding a tap, in addition to some programmable ones for commons actions such as Copy and Undo.

But for applications to use touch to the fullest, touch functionality needs to be specifically incorporated via the SDK. How smartly they do it is entirely up to the application makers, since they too will have a fair bit of reinventing to do. So for now there's no immediate getting rid of the little rodent problem just as yet. Other issues like the hand obscuring the view in the table top form factor, greasy screens, lack of tactile response to make up for the loss of the cursor, will also come into the picture.



Windows 7 assigns operations to multiple processing elements

Touch applications

Still, there are some applications that wail out for a multi-touch interface but in the correct form factor. Maps and Google Earth is one example. Browsers are another area where touch can be a lot of fun. Imagine lying on the bed with a tablet and browsing Facebook pictures or YouTube videos. For whatever little typing, you can always bring up an on-screen keyboard. Touch may even greatly improve functionality of graphics and image editing suites like Photoshop or Illustrator. Alexander Phillip, a 3D modelling expert from Mumbai other the other hand says that he'd much rather use a mouse for precision or a Wacom Tablet. "Besides, why do away with those thousands of keyboard short cuts that you've grown used to over the years?" he adds.



"Low memory consumption is very important, to drag icons or windows around the screen"
Igor Stanek, Product Manager, ION/Notebook, NVIDIA

Consider the gaming scenario. Can you imagine the kind of micro you will be able to perform while playing an RTS? The inference we can draw here is that touch support for application will not do away with conventional forms of input. With Windows 7, you will be able to use either touch, mouse, or keyboard as and when each makes sense.

"We've been asked if we are creating a new Touch UI, or "Touch Shell" for Windows – something like Media Center that completely replaces the UI of Windows with a version that is optimised for touch. We are focused on bringing touch through the Windows experience and delivering optimised touch interface where appropriate." says the Windows 7 Touch Team on the official blog.

Future

Other applications of this technology can be envisioned too. "What you can do with it is entirely up to what uses it can be put to through the API. Photo manipulation, making collages with drag and drop are just some of the things that you can do. Application are being built for portfolio management, others include a newspaper reading application that would allow you to easily flip between pages with intuitive gestures," says Popli

Touch applications can be pictured virtually anywhere. "You can pick an industry and see how touch applications can be relevant within those industries." "In the Automobile segment I believe we're partnering with some of the companies here for applications leveraging touch functionality. Let's take for example if you happen to go to a showroom you can see a car and the exterior, experience a different look and feel. It will help you manipulate those customisations and data points in a much better way without going though the learning curve." In medicine teaching applications can be envisioned. You might be able to see a heart and touch a ventricle apply pressure to simulate a blockage at that point and the programme can respond.

With mobility comes miniaturisation over a period of time. "You'll see smaller laptops or netbooks and even tablets. Each will appeal to a different type of user," says Popli to round up. But to truly have such tablet-like portable computing devices to operate on a full touch environment, we believe there is no escaping a separate touch shell for Windows.

PS3 Slim
Sony plans to price the 120-GB PS3 Slim around the same as the 80-GB PS3, but without any bundled games

XBOX 360
Microsoft has once again denied rumours it will release a Blu-ray drive for the XBOX 360

Blu-ray – The Indian Picture

We take a look at the Indian Blu-ray market and what it means for you

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We decided to go out to the market and take a look at the various options available to a consumer who wants to get onto the Blu-ray bandwagon. We went looking for both players that support this format as well as the availability of supported media at various locations.

Sony announced the Blu-ray format to the technology world in February 2002 with a lot of fanfare. The next generation format promised more storage space for playback of high definition video content and other storage purposes. However, by the time the standard was finalised and the first players were marketed in June 2006, the HD DVD format supported by the DVD Forum led by Toshiba had also launched competing players. With both sides having poured their fair share of time and money into the development of competing high definition formats, neither side was willing to back down. This led to the HD format wars. Blu-ray emerged as the victor in February 2008 with Toshiba finally withdrawing its support for the HD DVD format. With this, Sony could finally look forward to the broad adoption of Blu-ray by next generation devices.

Blu-ray vs. DVD

Compared to conventional DVDs, a Blu-ray disc of the same size can hold more data (50 GB vs. 9 GB for dual layer DVDs). While the resolution of DVD video is limited to 720x480 or 480p, Blu-ray video can go up to 1920x1080 or 1080p. Blu-ray discs also use better compression technology resulting in better picture quality. Availability of larger storage media, and high definition sound formats such as Dolby Digital True HD, result in superior audio quality. Blu-ray also has other enhancements such as picture in picture commentary, improved navigation menus and downloadable content. Most Blu-ray players also have the ability to upscale DVD content to improve its display quality for viewing on high definition TVs. All in all, Blu-ray is a definite improvement over regular DVDs.

Players

Since the second half of 2007, many companies have introduced Blu-ray players in India. Here, we only look at players officially launched in the Indian market. Models that were not available in the market have not been listed below.

Philips: Two models available in India, the BDP3000 and the BDP7500 have 7.1 surround sound as well as DivX support in addition to standard features, the BDP7500 is a premium model with support for USB flash drives as well as the AVCHD camcorder codec enabling it to play videos directly. One issue with these players is that they are region locked (For more on region locks – see Box). Both these players are priced at approximately Rs. 16,000 – Rs. 17,000 and Rs. 24,000 – Rs. 25,000, respectively.

Panasonic: It's two models in India, the DMP-BD30 and the DMP-BD60 have AVCHD codec support and an SD card slot. In addition, the higher-end BD60 has a USB port and support for 7.1 surround sound. Both these players are region locked as well.

LG: The BD370 comes with DivX and USB support, but is region locked and has no support for 7.1 surround sound.

Sony: The BDP-S300 and the newer BDP-S350 have AVCHD codec support. The BD-S350 adds USB port and 7.1 HD sound decoding via HDMI. Both of them are approximately priced at Rs. 20,000 and Rs. 25,000.



Philips' BDP7500 supports USB flash drives, DivX with 7.1 surround sound output

DO YOU REALLY NEED BLU-RAY?

Even if you like to stay on the cutting edge of technology, you need to figure out if you'll get any benefit from buying a Blu-ray player.

Video

Many DVD players have an 'upscaling' option that improves the quality of SD (Standard Definition) content for display on high resolution LCD/Plasma TVs. Although not as good as actual high definition content, it does make a difference, and may appear fine to some.

To get the best out of a Blu-ray player, you should connect it to an HDTV with 1080 lines of progressive scanning, or 1080p. Usually, on TVs less than 40 inches or so, you will not be able to make out the improved quality provided by Blu-ray playback.

It's best to go to a showroom before making the purchase and check if you think it makes a significant difference to justify the expenditure.

Audio

Blu-ray discs also include high definition audio. However, you need a player with compatible audio outputs as well as a capable home theatre speaker system to take advantage of the improved audio quality. A Blu-ray player supporting 7.1 surround sound is pretty useless if it's not paired with a 7.1 speaker system as well.

So to conclude: Yes, the Blu-ray format offers improved quality. However, if you are mixing it with older equipment or you're buying new equipment, take advantage of all the features in Blu-ray.

Launched in India in April 2007, the Playstation 3 is the crown jewel in Sony's Blu-ray lineup. Sony took the risk of including a Blu-ray drive in the console by default. As a result, the PS3 is now the largest selling Blu-ray player in the market, whether explicitly purchased for this purpose or not. The PS3 supports multiple file formats including DivX, supports wireless media streaming from your PC and enables 7.1 HD audio over HDMI.

The fact that it doubles as a next generation game console and has support for internet browsing works in its favour as well. The only negatives one can think of are the lack of 7.1 analogue sound support as well as the region lock on the console. The PS3 is priced at Rs.



Sony's PS3 is the largest selling Blu-ray player

20,000 for the 80 GB version while stocks of the older 40 GB version are being sold at Rs. 15,000.

Finally, which player should you buy? It really comes down to whether you plan to play games on the PS3 or not. For purists, assembling a home theatre set-up, a standalone player might make more sense, providing more features/options in the audio department. For everyone else, the PS3 is a value for money player, if you really want to buy a Blu-ray device. In fact, you'd prefer the newer 120GB PS3 'Slim'. While it will be priced at the same Rs. 20,000 price as the current 80 GB model, it will not have any games bundled along with it.

Sales trends

Several large multi-brand electronic stores we visited either did not stock Blu-ray players or had only one or two models in stock. The saving grace for Blu-ray is that the PS3 is ubiquitous at almost every store that you visit.

While Sony and other manufacturers have not released any sales numbers for Blu-ray player/PS3 sales in India, many store managers we talked to confirmed that they haven't seen any major push from manufacturers, or demand for Blu-ray players from consumers. While the recent price cut of the PS3 from Rs. 25,000 to Rs. 20,000 was expected to boost demand, sales stayed relatively flat even during the recent festival season, trailing the XBOX 360 at most places. Only one of the store managers we talked to was optimistic about sales of standalone Blu-ray players, with his store selling around seven players a month.

Pricing of media is a factor that needs to be kept in mind when we look at the availability and sales of Blu-ray media. Games for the PS3 in the Blu-ray format are priced in the Rs. 1,500 to Rs. 2,500 range, Hindi movies are typically priced at Rs. 1,000, and most English movies range from Rs. 1,300 to Rs. 1,500 depending on the popularity of the movie. Compared to this, Hindi DVDs for popular releases are available from Rs. 99, while English movies cost a maximum of Rs. 500. While manufacturers may talk about targeting quality conscious buyers until prices of Blu-ray media come down to more reasonable levels, a majority of Indian consumers will be hesitant to invest in the format even if they are considering the switch to HD.

As with any new technology, Blu-ray players are quite expensive. While prices of Blu-ray players have come down since they were initially launched. For example, from $1,500 to under $150 in certain cases, manufacturers hope to bring down prices even more with experience and technological advances in the future. Unfortunately, pricing of Blu-ray players in India is still quite high and this is not conducive to the acceptance of the format.

By the way, the only reason a next generation console like the PS3 can incorporate Blu-ray playback and still cost the same as other regular Blu-ray players is because Sony subsidises the hardware cost of the PS3 platform. Like most console manufacturers, Sony expects to recover its costs through sales of accessories and royalties from game developers.

While digital downloads for movies haven't really taken off in India yet, companies such as Bigflix have started experimenting with online models allowing users to download movies of their choice to buy or rent for a certain time period. Though currently restricted to DVD quality content, these companies can move into the high definition content space in the future. All they need is a more robust broadband infrastructure. In case such services catch on, it may not even make sense for consumers to invest in an expensive high definition Blu-ray player when they can just hook up a laptop or LCD TV and stream a movie off the internet. With so much money invested in the Blu-ray format, companies like Sony need to do all they can to increase awareness and adoption of Blu-ray in the Indian market.

Looking at the challenges posed by online content over the long term, Blu-ray may actually never turn out to be comparable to the blockbuster that DVD was. If they want adoption of the Blu-ray format to take-off in the Indian market, manufacturers will have to look at providing both hardware as well as content at a lower price. Only then will a large chunk of customers find it worthwhile to shift to high definition content.

DEMYSTIFYING REGION CODES

Blu-ray discs sold in a particular region are also supposed to be played only in that region. For example, a Blu-ray player purchased in the United States may not play certain discs, no matter how hard you try.

For Hindi movies, discs from Sony and Big Home Video are region free while those from Excel Home Video are coded to Region C (India). Out of the major English movie studios, releases by Paramount, Universal, Sony and Warner are region free. Titles released by Lionsgate Films and Walt Disney are a mix of both while those released by 20th Century Fox are region coded.

Depending on the model of your player and its firmware version, you may be able to find instructions online on how to change its region or make it region free to play all discs.

2.1 vs. 5.1?
A good quality 2.1 is better for music than a similarly priced 5.1. However, the 5.1 is better for games and movies

5.1 vs. 7.1 surround sound?
A 7.1 is overkill if there's not enough room behind the listener and the room is small in size

Home sound home

Simple modifications like room configuration and speaker placement can boost your home theatre experience

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With advances in technology, home theatre systems have evolved so that they no longer are the domain of the super-rich. When you go out to buy a home theatre system, the demonstration is conducted in specially built rooms where the sound quality of the system blows you away. However, when you listen to the same set at home, it doesn't sound the same.

As far as the question of buying a home theatre setup goes, it's a very subjective matter. Speakers and sound quality are relative. What's music to our ears may be noise to others. That's why it's very important to try out any system before actually buying it. Go to the showroom with a DVD of your favourite movie or a CD (or another high quality audio source) of your favourite band and then get whatever sounds best to you. Other than the well-known consumer names, there are many brands audio enthusiasts swear by that actually provide much better quality for similar (and higher) prices. You won't necessarily get the best quality from a Sony or even a Bose for that matter as compared to what you may end up paying for it. You can find detailed information about such audio setups from online forums.

Acoustics

Room acoustics is one of the most important and most neglected parts of a home theatre setup. The only design to absolutely avoid from an acoustics standpoint is a square-shared room. Anything else is acceptable. While you can hire professionals to handle how your home theatre room will sound, there is no reason why with a little work, you cannot do it yourself.

Make sure the room is isolated from outside noises. While there's not much one can do after construction, try to make the room as air-tight as possible to prevent sound going either in, or out of the room. Use the basic 'Clap Test' to check the room for echoes. Stand in different parts of the room and try clapping to see the amount of echoes that you get. Our aim is to minimise these echoes in the final setup. Concrete walls are not recommended for such a room. In case there is no other option, consider lining the wall with sound absorption material to avoid bass from booming against your walls.

For shaping a room's acoustics, you first need to take care of primary reflections from the walls. This requires the use of diffusers designed to diffuse sound reflections and redirect the sound energy throughout the room. The ideal seating position should be some distance away from the back wall to avoid reflections. The back wall and ceiling are preferred spots to place diffusers. Something like a bookcase against the back wall is an excellent method to diffuse sound as well as act as a bass trap.

You can use soundproofing material like cork board, glass wool, fibre glass, or even simple foam in a pinch to absorb reflections from the side walls. This doesn't mean you need to line the whole room with the stuff. A completely dead room is useful only for testing speaker response, and may actually be uncomfortable to our ears. Treating roughly 30 per cent of the room is a good rule of thumb to follow in such cases. Stuff like heavy drapes on the windows, rugs and carpets can also be used to cover reflective (literally) surfaces and absorb sound. Unless your speakers are designed to radiate sound in all directions, it's a good idea to place absorption material behind the speakers as well to absorb unneces-



sary sound before it starts bouncing around the room.

For more natural bass and to handle lower frequencies, bass traps can be used in the corners of the room where bass is usually maximised. They can also be hung in corners of the ceiling for greater response. Other than professionally designed bass traps, something like a chair with big cushions can also do the job adequately.

Sound from a speaker may reach you through solid surfaces like the floor much faster than air. To avoid such issues, you need something to absorb the speaker's energy before it reaches the floor. Things like spiked feet, speaker absorption pads, plain foam, fibre glass or even a thick carpet will serve the purpose.

Speaker Placement

For a home theatre, at least a 5.1 or a 7.1 speaker system is a must to get the true surround sound experience. Speaker placement plays an important role in deciding how the system is going to sound. Ensure all speakers are pointed at the listening area and avoid any obstructions between the speaker and the seating location that may block or deflect the sound coming from the speakers.

5.1 SETUP

A 5.1 system consists of a five speaker channels and a sub-woofer (the .1). The sub-woofer can be placed anywhere in the room as long as it sounds good to you when placed there. The closer it is to a wall, the higher the bass output. Avoid



Diffusers prevent sound waves from reflecting over surfaces and creating distortion

putting it in a corner since that usually results in very heavy 'boomy' bass as well as in the middle of the room where it won't have much of an effect.

Move the sub-woofer around to different distances from the walls and listen to it from the seating area to figure out where it sounds best. A somewhat silly looking, but more accurate method is to place the sub-woofer at your listening area (after moving the sofa/chair) and go around the room near the floor looking for the place where the bass sounds just right. That's where you want to place the sub-woofer.

The centre speaker is the most important speaker in the setup since most of the dialogue comes through it. It should ideally be placed just above, or in case of a wall mounted TV, just below the screen facing the listeners, as close to ear level as possible.



DVD's usually contain 5.1 surround sound. Newer high definition formats like Blu-ray contain 7.1 surround sound

Place the front left and right speakers at an inward angle. Ensure that they are both equidistant on both sides of the TV and from the listening area. They should be placed at ear level for maximum effect and should form an approximately 45 degree angle from the seating location. The left and right surround speakers need to be placed on both sides of the seating location or slightly behind it. They should be placed approximately 2 feet above ear level for the proper effect.

7.1 SETUP

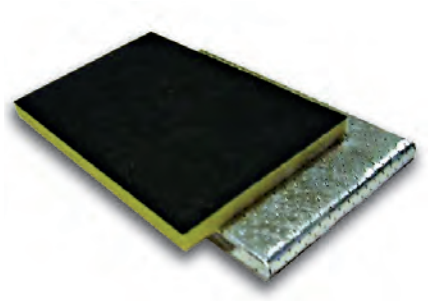
Most DVDs use 5.1 surround sound while newer high definition formats like Blu-ray contain 7.1 sound tracks. 7.1 systems have two extra surround speakers to give the perception of depth to the home theatre. However, these are useful only if you have a large room or at least more than 3-4 feet of space between your seating location and the back wall. The rear surround speakers should be placed directly behind the listening area at the same height as the side surround speakers, at approximately a 60 degree angle to the listening area.

Wiring

The cables and wiring of the home theatre system are also a neglected part of the whole setup. While cheap wiring is of course a no-no, it also doesn't make sense to buy some of the exotic and extremely expensive cables/connectors available in the market. A cable's job is to make sure the signal is transmitted.

A gold plated cable over a normal good quality one will not make a difference in this case. The longer the length of the cable, the smaller 'gauge' cable you need. Normal 12 AWG oxygen free multi-strand cables are good enough for anything till 200 feet. Any audio speciality store will stock the required cables. Just don't fall for the extremely expensive pre-packaged ***quality*** cables that claim to do everything including improvements in sound quality.

More importantly, power and audio/video cables must be separated at the back of the home theatre system. A jumbled mess here can result in electrical interference and less than stellar sound quality from the speakers. Avoid cabinets or racks with one or two holes to run cables through them.



Absorbent materials reduce noise

These tend to cause interference since they combine power and audio/video signals. The metal edges may also tend to cut the cables if pulled. Ensure all connectors have good contact and are tightly coupled. Lighting dimmers as well as loose power plugs can also result in hum.

General dos and don'ts

Double check all speaker wires to ensure that the wires are connected to the correct polarity, positive to positive and negative to negative. While it sounds minor, a mistake here can result in mismatched sounds from the speakers while you go crazy with the settings trying to figure out what went wrong.

Power down all equipment while making the initial connections. Switch on the system only after all connections have been securely made.

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Join the Digit Forum at www.thinkdigit.com/forum, and discuss this article. You can find others who are also interested in setting up home theatre systems. If you haven't already, the next step in spicing up a home theatre setup is to go the DTH route, but hang on, don't miss our comparison of DTH providers next month (January 2010 issue)

Good quality audio equipment including audio receivers and speakers are often quite heavy. Make sure that the cabinet/shelves/speaker stands used can take the load. You don't want any of that expensive stuff falling down after a couple of days.

Avoid placing sub-woofers and speakers in general inside cabinets unless they come prebuilt. Optimal placement may require you to move them around, something that is not possible when placed in a cabinet. The power of the sub-woofer may also be reduced. In case you do need to place it inside a cabinet, make sure that it's properly braced and padded to avoid unnecessary vibrations.

Cooling is an often ignored part of home theatre systems even though high-end equipment does tend to generate a lot of heat. While passive cooling will be adequate in most cases, semiconductors are designed to operate in a particular temperature range, and proper placement can ensure longer life for your hardware.

Consider additional cooling if the equipment is being placed in a cabinet without ventilation outlets. Heat generating equipment like power amplifiers found in audio/video equipment should be placed on top so that warm air can rise upwards and be exhausted quickly.

Most home theatre systems have integrated setup menus and some kind of sample CDs to calibrate the audio and make sure that surround sound is working properly. If you are investing in high end equipment, it may be a good idea to buy a Sound Pressure Level (SPL) meter to help with proper calibration of the complete setup.

Home theatres, speaker setup or even room acoustics are vast topics that have entire books and many web sites devoted to them. We hope this article gives you an idea of what to expect while setting up your own home theatre system to get the best out of the system. Feel free to experiment with room interiors and speaker placement till you find a setup that is just right for you.

A flick in a click

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We take a look at the various ways by which you can get a dose of your favourite films and TV shows through the internet

Pirated movies have a lot of pitfalls. You can never be sure whether the quality of the movie is going to be good enough; in fact, you can never be sure whether the DVD inside is going to show you the movie that the cover says! And the low quality of the physical DVD also has its own problems, as it can get scratched easily and gets errors after a few times you use it.

Renting online

While chains such as BlockBuster have started prominent DVD rental stores in the US, this trend hasn't caught on in India. Local rental outfits were very popular during the time of VHS, but not all of them managed the transition to VCD, and subsequently DVD. Renting a movie still remains the most economical way of catching a flick, and thanks to some sites, you can avail of this from the comfort of your home.

There are three outfits that you need to check out if you do intend on renting movies in India: MovieMart (www.moviemart.in), BigFlix (www.bigflix.com) and SeventyMM (www.seventymm.com).

All three sites give you the option to rent movies through the online portal, which are then delivered to your home address. Once you're done watching the film, you can go back to the site and request for it to be picked up, and get the next movie delivered as well.

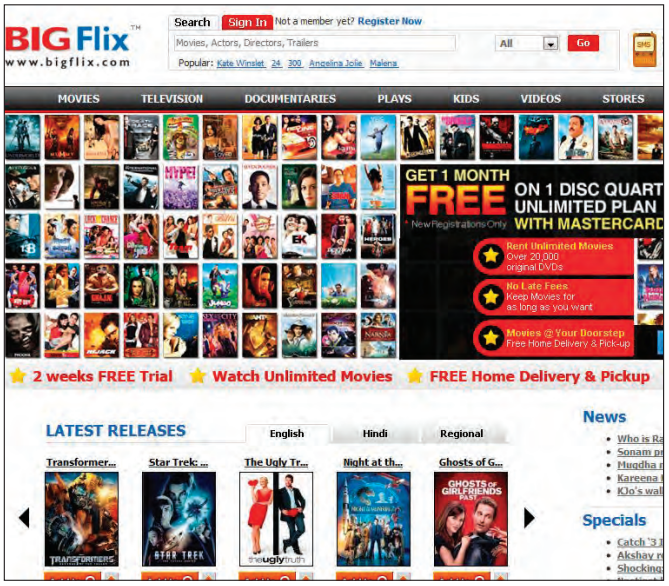
First, you will be required to register at the site, giving your details as well as picking out a suitable rental plan. These rental plans are quite varied, made to cater to the various movie-watching habits of consumers.

With a wide variety of subscription schemes, it's really up to you to decide which one works out best for you. The most advisable way is to try the lowest price one-month scheme first, check your usage, and then go in for a higher scheme based on that. The web pages of all the three sites have their plans laid out in neat tables, but just to get you started, here are the lowest and highest comparative membership plans for the three services:

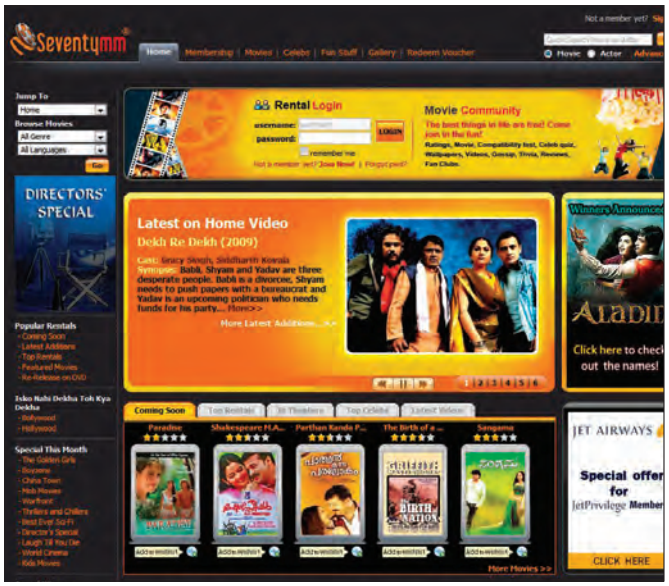
Once you have chosen a plan, the next step is to figure out which movie you want to rent out. All three portals have an extensive library of English, Hindi, regional language and other films, neatly categorised for easy browsing. All three sites offer the ability to create a 'Wish-list' of the movies that you want to see, and arrange them in order of priority.

Some services such as BigFlix, also have retail stores where you can go and exchange the movie yourself if need be.

The one disadvantage of the movie rental system is that often, you might get DVDs that are a bit scratched, which could damage your player. While you



BigFlix is the only service that offers the option of renting unlimited discs



One of the three best movie rental sites in India, SeventyMM



Best Blu-ray player
Even now, the Sony PlayStation 3 remains the best value-for-money option in Blu-ray products

Safe online
You can use dedicated internet-only credit cards such as HDFC NetSafe and ICICI 3D Secure for safe online payments

may know how to handle a disc, most of us have parents, siblings and friends who would hold a disc on the wrong side, keep it flat on a corrosive surface or try to clean it without knowing how to. That is a fair portion of the audience of these sites as well, so be prepared for some discs that you would want to get rid of as soon as you are done watching the movie. Thankfully, if you do get a damaged disc, all the three services will offer to exchange it for you, free of cost.

Buying online

MovieMart also doubles up as an online movie store with a collection of both Bollywood and Hollywood movies that finds little parallel on the net. Movies, TV shows, documentaries are available across various media, such as VCD, DVD and Blu-ray.

Navigating the site is quite a hassle, though. A lot of dead links, a clunky interface and a so-so search feature make this a browsing nightmare. But put up with all that and you are bound to get most of the titles you are looking for, and at pretty decent prices to boot.

Downloading / streaming

Broadband internet is starting to look better in India. Limited download plans of up to 2 Mbps have been around for some time, but now, firms like Airtel and MTNL are making it viable for power users to buy 512 kbps and 1 Mbps tariff plans with unlimited download options. With such speeds and such capacity, the idea of moving to a non-disc method of media is always tempting.

However, while the iTunes store and NetFlix have availed American citizens of incredible ease in downloading and streaming their favourite movies and TV shows, it is not quite the same for us in India. There is still no viable option to download flicks or stream them, and most of the ways have grey legal areas.

TARIFF

LOWEST	RATE	AT A TIME	LIMITATION
MOVIE MANTRA	Rs. 179 per transaction	2 discs	3 days time period
SEVENTYMM	Rs. 250 monthly charge	1 disc	5 discs in a month
BIGFLIX	Rs. 300 monthly charge	1 disc	7 discs in a month
HIGHEST	Rate	At a time	Limitation
MOVIE MANTRA	Rs. 3,499 per year	6 discs	96 discs in a year
SEVENTYMM	Rs. 3,499 per year	2 discs	96 discs in a year
BIGFLIX	Rs. 3,500 per year	1 disc	Unlimited discs

A better, and safer, option for streaming movies is to check out the free streaming catalogue offered by BigFlix. Of course, most of this is Hindi, but you do get quite a few gems in there.

Among new movies, you can stream *99* for free. Hindi movies such as *Bheja Fry* in addition to other popular movies are also available. All you have to do is select the movie you want to watch, ensure your internet connection is working and start streaming! On a 512 kbps connection, we could watch the movies without any lag. However, as expected, the quality left a lot to be desired. Still, with a catalogue of over 1,300 free-to-watch movies, we really can't complain much. If you would prefer downloading movies on to your hard drive, we have not come across any such option as yet for Hindi movies.

For English movies, you could try out ZML (www.zml.com), which lets you download unlimited movies for a monthly rate of $39.90 (Rs. 1,850 approximately). The price is a bit steep, but the site does offer high-quality movies in different formats. But be very careful when you're signing up. While ZML offers a trial period of one day for $0.99 (Rs. 46), it will start charging your credit card automatically from the next day for the full amount of $39.90, unless you cancel it yourself.

Conclusion

Renting is still the best option of the lot because of the large collections offered there while being extremely cost-effective. Even with an annual subscription to rent unlimited movies, you would not be spending more than Rs. 3,500. At the lowest rate of renting two DVDs a week, users would still be shelling out only Rs. 33 per disc, approximately. It should also be noted that BigFlix is the only service that offers the option of renting unlimited discs, so serious cinema-watchers might want to go in for that.

As for streaming and downloading movies, the Indian market is infantile at best. BigFlix is the only saving grace here, with no one offering services like NetFlix or Hulu yet. And as mentioned earlier, the free streaming movies on BigFlix have a limited catalogue and suffer greatly when it comes to quality of video. But as they say, beggars can't be choosers.



Movie Mart has a superb catalogue of movies to buy, be they VCD, DVD or Blu-ray

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If you're not into watching movies online, you're probably renting DVDs or, ahem, getting them from elsewhere. Big hard drives seem to be the need of the day, but before you run out to get yourself one, you might like to know that we're going to be testing terabytes of storage in January.

57 **Gains for loss**
Get a deeper understanding how file compression – especially MP3 (for audio) and JPEG (for images) work

Thick fingers?
Projected Capacitive technology can detect touches made on a screen up to 2 cm thick

The Touchables

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Touchscreens (TS) have been around for a long time, and quite inconspicuously so, till the iPhone amazed people with the multi-touch capabilities of its interface. Now, if you are dismissively wondering ***how long before?*** you will be surprised to hear ***more than a quarter of a century***. Before we proceed, we need to clearly understand what qualifies as a TS. A largely satisfactory definition would be – any transparent interface that generates an input either on touch or proximity with another object can be termed a TS. Now, those of you who have encountered a TS before, mostly at kiosks at the ATM or railway station, will recall that during some encounters, mere touch was not sufficient and significant pressure had to be employed to get a response. This would disqualify that interface as a TS in light of our definition.

Technologies

Broadly there are two parts to the whole touch experience. First, and most conspicuously, the mechanical interface itself - that merely generates the input; and second, the underlying software - that interprets the input into something meaningful. It is important to note, that the software plays an important role and it can make and mar the touch experience irrespective of the quality of the mechanical components. For example, a slide of a finger on the interface is interpreted as a "flick" by the software.

Resistive TS

This is the most mature among the technologies and also the cheapest and the most widely used. Here, the TS is constructed using two flexible films whose proximal surfaces are coated with Indium Tin Oxide (ITO). ITO is a solution of Indium oxide and Tin oxide, which is conductive and, in thin layers, transparent. The two films are microscopically separated by an array of insulating spacers. In working, when the upper flexible layer is pressed, it touches the lower layer which completes a circuit and the location of the point is computed.

Not so fast! The technique with which the point of touch is computed distinguishes the subtypes of this technology. So a 4 wire Resistive interface uses two wires on opposite edges of each on the top



Illustration: Shrikrishna Patkar

and bottom layer to find the X and Y coordinates of the point of contact. An 8 wire Resistive interface is similar to the 4 wire, but adds 4 more electrodes to improve the accuracy in TSs larger than 10 inches (diagonal) and also counter the effects of drift - a phenomenon where over time the flexible film shifts position causing inaccurate readings.

A slight variation in the 4 wire design is the 5 wire design which has 4 electrodes on the bottom layer - one each corner - and one on the top flexible layer. This design increases the screen's durability and accuracy. A further refinement of this design is the 6 wire interface which uses one additional ground wire to reduce interference and increase accuracy. A 7 wire interface adds two additional wires to the 5 wire design to reduce effect of drift.

Resistive TS require some pressure to be applied to make the two layers meet, mere touch doesn't suffice, and this explains your encounter with the TS at the ATM. And this issue aggravates as the ITO layer gets worn with use.

Most PDAs that feature a stylus use this technology. Also seen in some mobile phones, notably the Motorola ROKR. Due to the flexible top layer of the interface it is easy to spot a Resistive TS.

Advantages

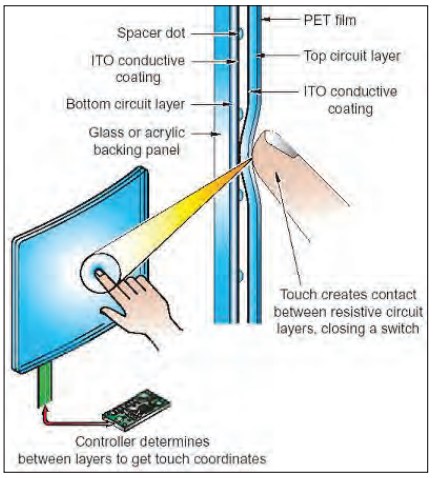
Cheap to make. Any object can be used to make contact. Accuracy is high, so this interface is ideal for note taking and character recognition activities.

Disadvantages

Top layer is susceptible to damage. The interface is not usable once the top layer is damaged. Since there are many layers piled upon the actual display, visibility is reduced. Usually around 75 per cent transmission is promised. Cannot sense multiple points of contact Wear can result in the ITO coating to become less sensitive, therefore over time accuracy decreases and recalibration is needed.

Capacitive TS

Capacitive TS can be of two types - Surface Capacitive and Projected Capacitive. In both cases, the top layer is usually



Resistive touchscreens rely on variation in resistivity

glass making it more scratch resistant than Resistive TS. The core property used here is that of a capacitor - two conductors separated by an insulator.

In Surface Capacitive screens, the glass is coated with a conductive layer, usually Indium Tin Oxide, on the underside. A small amount of voltage is applied to uniformly charge the entire surface. There are electrodes on the four corners of the screen to check for voltage changes. When a conducting object, like a human finger or any metal object held by the human hand, touches the screen, the charge is drained at that point (the glass acts as the insulator between the conductive layer and the conductive object), and a voltage change is registered. Each electrode detects this change, to arrive at the point of contact.

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Projected Capacitive screens consist of two parallel layers of conducting material (ITO), similar to the set-up seen in Resistive TS. The difference is that there are no flexible layers - both layers are glass, and the conducting material is etched into their proximal surfaces so as to form a grid of electrodes separated by a film of air (thereby creating a grid of capacitors). The capacitance field is active above the surface of the top layer of glass, and bringing a conductive material like a human finger even close (2 mm is enough) to the touchscreen causes a discharge and resultant voltage change which is picked up by the electrodes. The iPhone and many premium smartphones use this technology.

Advantages

True touchscreens, where mere touch generates input. Projected Capacitive screens allow detection of multiple points of contact, allowing multi touch operations/gestures. Compared to Resistive screens, these screens allow faster inputs. Since glass isn't easily scratched, this is more rugged than resistive TS.

Disadvantages

Needs a conducting object to register touch, so ordinary stylus or even a finger nail will not do. Scratches on the top layer can impact performance.

Surface acoustic wave TS

This technology employs ultrasonic waves (USW) to form a grid above the screen. Piezoelectric USW generators and reflectors are used to generate US waves and stream them over the surface - usually glass. US waves are generated on both vertical and horizontal directions by generators, while receivers placed at the opposite side monitor them. When a finger or object is placed on the screen or near it, some of the US waves are blocked. This is detected by the receivers in both axes, and the location of the point of touch is calculated.

Advantages

Since there are no layers involved, just a glass sheet, visibility is very high. Works with any object. The only TS technology that can also detect Z axis or pressure changes if any.

Disadvantages

Since the network of US waves is above the surface, it is possible that false touches are registered if objects come close. This doesn't bedevil Guided Acoustic wave screens. Expensive.

Scanning infrared TS

Similar in concept and function as Surface Acoustic Wave TS, here IR diodes and sensors are placed on opposite sides of the bezel to generate and receive IR waves respectively. The obstruction in the IR waves at the point where the object is

Touchy surface

Microsoft Surface is multi-touch capable and can recognise up to 52 simultaneous touch points

Price of touch

15-inch TS monitors featuring the projected capacitive technology are available in India for around Rs. 20,000. Resistive TS cost about half of that

placed on the screen is reduced to X and Y coordinates. The HP TouchSmart All-in-One PC uses this technology as does Microsoft's surface computing concept, the TouchWall.

Advantages

There is no need to overlay any screens, just the bezel containing the IR transmitters and receivers are needed. So visibility is maximum among TS types. Since the circuitry can be completely sealed in the bezel, this technology offers the reliability even in tough environments. Most preferred TS technology for large screens.

Disadvantages

Since normal sunlight also contains IR rays, these screens do not perform optimally when placed in areas with abundant sunlight. The density of the IR diodes determines the sensitive areas of the screen and detectable size of the object. Some of the narrow spread or newer technologies are touched next.

Hybrids

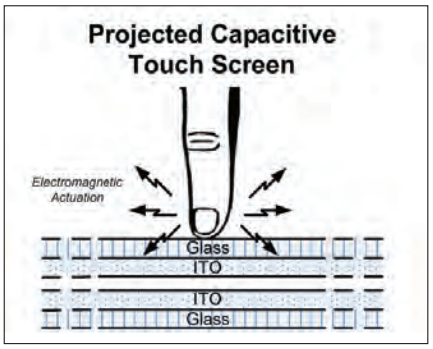
To get the best of both worlds - accuracy of tablets (not tablet PCs) and flexibility of human touch, some companies have come up with hybrid technology that combines the detection system used in tablets with capacitive TS technology. The Dell Latitude XT and HP TouchSMart TX2 are examples of devices using the hybrid technology created by a company called N-trig.

Wave transduction

This technology uses the property of glass to propagate sound or shock waves generated when touched. Receivers placed at 4 different sides of the screen can detect the waves, and by comparing the readings of each receiver the location of the point of touch on the screen is computed. This technology is fairly new, and also goes around under trademarks like Acoustic Pulse Recognition (audio waves are detected) and Dispersive Signal Technology (shock waves are detected).

Near field imaging

This is a proprietary technology, that relies on a proprietary layout of ITO film to detect touch events. The entire glass sheet is converted into a sensor,



Projected capacitive TS design

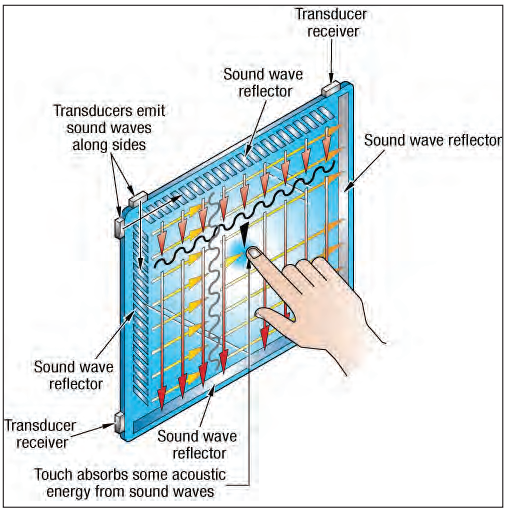
with it's top side coated with ITO film in a particular layout, and the bottom layer entirely coated with ITO. A protective sheath is overlaid over the sensor. When activated, the sensor generates a electrostatic field, that is disrupted by touch with finger or grounded conducting object. The driver circuit continuously images the field, and change in the field is detected by comparison with previous images, and the point of touch is detected. NFI TS are considered the most rugged of TS and can withstand and work around dust and debris.

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Force detection

This technology uses sensors (called strain gauges) placed at the corners of the screen to detect the force applied to the screen during a touch operation. Based on the readings recorded at the four edges, the location of the point of touch is calculated.



Surface acoustic wave TS design

Optical technologies

This kind of TS relies on the principle of Frustrated Total Internal Reflection. and is utilised for transmitting light through fibre optic cables. Essentially, rather than have the IR source below the screen, it is placed around it, and the IR beams are projected through it at an angle such that the beams are internally reflected and don't escape the surface. When a finger touches the screen, at that point the internal reflection is frustrated, causing the IR rays to pass through the screen to the outside. This is picked up by the IR cameras placed behind/below the screen and used to detect touch and gestures.

Haptic technology

While not exactly a technology that is used to create touchscreens, Haptics is expected to play a major role in enhancing TS interfaces. Haptics, simply put, is similar to force feedback experienced in gaming devices. As TSs become popular and soft keypads take the place of normal keyboards, people used to touch typing will be put off by the lack of proper sensory feedback from the flat screen. Haptics attempts to fill this void by creating the touch and feel of a normal key by simulating the edges and depressing action. This is just one application of haptics, which is already implemented in high end phones like the LG Cookie. Several phones offer Haptic experience, but this is mostly limited to a timely vibration as feedback for any action.

The future

Multi touch screens and collaborative software make a strong team. It is easy to picture a person using multi-touch to rotate an image, but the true power of multi touch is in having multiple people collaborating on the same project. Two people collaborating on the same screen would be better. But nothing would beat having a third person adding his inputs over the net. As internet connections speed up and appropriate software is created, such an intercontinental brainstorming session would be possible. TSs and gestures are predicted to make mice redundant. This is debatable.

Gains from loss

Mohamed Rameez
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While most high quality movies five years ago could fit into a couple of VCDs, today's demands of high quality prints require high density media such as Blu-ray disks, capable of storing scores of gigabytes.

Compression has indeed been a boon to the media world. You use compression in various ways almost every day. You would've noticed how a JPEG image of the same quality as a bitmap picture is just a fraction in size. Other methods of file compression such as ZIP or RAR are also popular.

Codec

At the heart of a compression tool such as an MP3 ripper is a component known as a codec – short for coder-decoder. A coder is a program / algorithm that is capable of accepting uncompressed raw data (such as a bitmap picture or a wave file) as input and giving a compressed low size file (such as a JPEG image or an MP3 file) as the output. Codecs are often patented technologies, such as the MP3 codec. Sometimes, the same type of encoding (AAC for example) is possible through multiple types of codecs (some open source, some closed).

The compression ratio is the ratio of the file size of the original file to the final compressed file. Compression methods and their associated codecs are largely classified into two – lossy and lossless.

Lossless compression

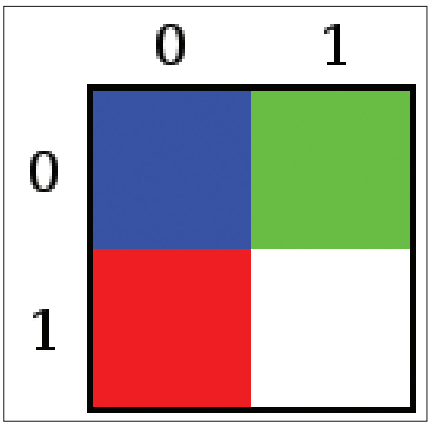
If the original uncompressed file can be regenerated from the compressed file by the codec, the compression method is considered lossless. In its simplest form, this is often achieved through algorithms that search for repeating patterns in the data and then replace them with references, making the file smaller. More advanced methods create statistical distributions of the various patterns available, with the highest probability patterns giving maximum compression. These types of compression are often used to store data, for example, ZIP and RAR, and in certain important media applications. Some formats that use lossless compression are PNG, GIF and ATRAC.

Lossy compression

Lossy compression, is popularly used in media files such as images, audio and video. This type of compression have been designed after a fair amount of study into human sensing abilities. The final product might look and sound the same, but some data is irrevocably lost in the compression process and the codec cannot generate the original data.

JPEG

A common form of lossy compression used in image files, especially on the internet, is the joint photographic experts group (JPEG) and is used in various file formats (file types with different file structures). The most popular among them is JPEG /Exif, used in digital cameras. This allows for the inclusion of information such as shooting time, date and exposure time in the image. Another common format, is JFIF, utilised mainly on web pages.



A simple 2 pixel by 2 pixel BMP image in 24-bit colour

As we know, an image consists of a large number of small pixels. In the most rudimentary file type for an image, known as a bitmap picture, each pixel is denoted by a block of data varying in size from 8 to 32 bits. In an 8-bit BMP, a pixel can take any of 256 colours, while a 32-bit pixel can take 2^{32} colours. The number of pixels in an image increases with higher resolutions. JPEG compression utilises statistical patterns found in nearby pixels so that a region in an image can be generated using much less data. As such, JPEG is a compression format better suited for when nearby pixels are similar, like a photograph with soft gradients. In images such as drawings with sharper gradients, JPEG leads to observable loss in quality.

An image encoded in JPEG using successively higher compression ratios from left to right. Notice the successive reduction in quality

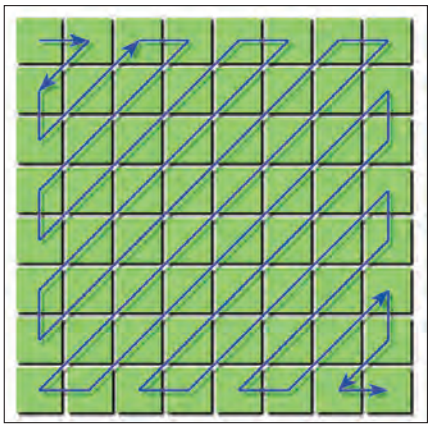


The JPEG file structure

A JPEG file consists of many small building blocks known as segments. Each segment can be different in size and characterises a small area on the image consisting of similar pixels. Some segments do not stand for any portion of the

JPEG2000
Successor to JPEG, version 2000 is effective with higher image resolutions, but fails with lower resolutions

PNG
Is an image compression format developed in the early 90s to replace GIF (graphics interchange format)

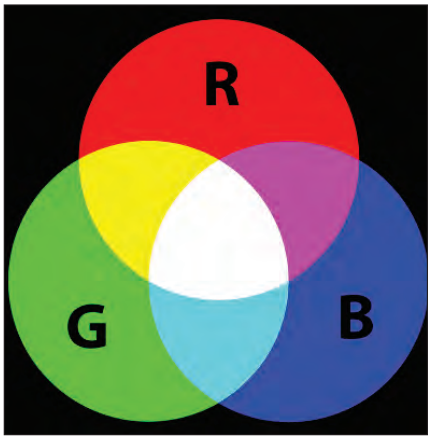


The zigzag order of JPG picture segments

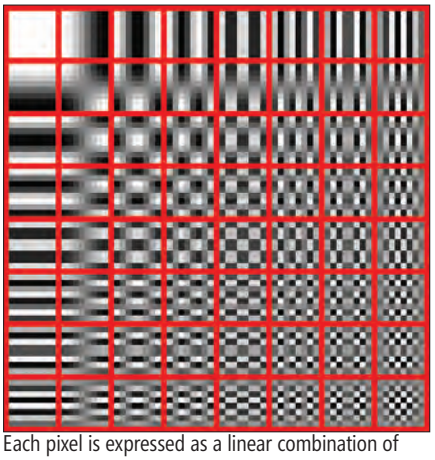
picture, but for information such as date and time of shooting. The segments of the image are in a zig-zag order starting at the top left corner of the image.

When a bitmap image is opened in an application such as Microsoft Photo Editor, or Adobe Photoshop and saved as a JPEG, there is a reduction in file size by up to 90 per cent, with no perceivable drop in visual quality. Let us see how this is done.

1. The bitmap image, with each block of 8 bits (or 16 or 32 bits, depending upon colour quality) standing for a different block, is converted to an RGB image, i.e. a method of representation in which each colour, instead of being represented by a number from 1 to 255, is represented by the red, blue and green contributions to it. The Red Green Blue Representation of colours for a pixel. A pixel colour is specified by specifying the percentage composition of the colour in terms of Red, Green and Blue colours.
2. The RGB image is converted into a YCbCr image, i.e. an image in which, instead of specifying the three colour contributions of a pixel, its brightness (Y), and two components of colour (Cb and Cr) are specified.
3. The resolution of the Cb and Cr components are reduced, often almost to half its original value i.e. many nearby pixels are given the same average colour. This is because the human eye is more sensitive to changes in brightness than changes in colour.
4. The image is split into 8x8 pixel sectors, and statistical techniques such as discrete cosine transforms and discrete fourier transforms are applied depending upon whether the colour gradient across them is gradual or sudden.
5. The image is re-specified in terms of similar pixels, their frequency of occurrence and their locations.
6. The resolution of the specifications for very low frequency pixels is reduced. In this way, the image is taken through multiple types of representations and unnecessary information is eliminated. Most JPEG codecs allow you to choose the compression ratio you desire, so that the trade-off between size and quality is your decision.



A pixel colour is specified by the percentage composition of the colour in terms of red, green and blue



Each pixel is expressed as a linear combination of these 64 squares, to enable better compressions.

MP3

One of the most popular forms of lossy compression used in audio files worldwide is MP3. Developed in the '80s by the Moving Picture Experts Group (consisting of engineers from Fraunhofer IIS, Germany and Alcatel-Lucent, New Jersey,) MP3 stands for MPEG 1, Audio Layer 3.

This method of compression was initially developed by MPEG as a method of compression for the audio in MPEG 1 video files, the format used in VCDs, but soon found independent application.

The MP3 file structure

An MP3 file consists of various frames, one after the other. Each frame consists of an MP3 header, and the actual data. In an MP3 file, the actual data in each frame is 1152 samples long and is known as a block.

A sample is a discrete digital signal that is generated by a microphone when audio is incident on it. The MP3 header contains the essential information required to play the block while the block contains the actual audio data.

A header and a block together make up a frame of the MP3 file and is of variable duration in playback, which is specified in the header. The header contains the following information.

1. A sync word, data to make sure the audio and video are synchronised (MP3 was originally meant to be used on VCDs)
2. Version of the MP3 codec
3. **Layer:** The number of the layer to which it belongs
4. **Bit rate:** The bit rate (in kbps) used by that specific block.
5. **Frequency**: The speed with which the samples in the block are to be played.
6. **Error protection:** A reference to a similar audio block somewhere in the file that can be substituted for the current one, if the current one cannot be played due to errors. More technical information is specified in the header.

When you open an MP3 file using a player, it reads the first frame, opens the header, plays the block associated with the header according to the specifications (in the header), moves to the next frame and then repeats the process.

Sometimes the first block in an MP3 file is an ID3 tag. ID3 is a universally accepted format by which miscella-

neous information regarding the file can be stored on the file itself. This information includes the title, album name, artist and date and are useful in identifying audio tracks.

In older audio CDs, 3-4 minute tracks were about 60 MB in size. These were uncompressed audio files stored losslessly. When you use a CD ripper to convert this into an MP3 file, certain sections of the audio are removed. The MP3 standard, does not specify an exact algorithm for converting RAW audio into the final MP3 file. It however, gives extensive information on what sort of audio signals are inaudible / unperceivable by the human ear and can be removed. Based on research in psycho acoustics (the study of how sound is perceived by the human mind), it has also generated a list of the types of audio signals which even though physically perceived by the human ear, is still ignored by the brain.

Different types of MP3 encoders use this information, to remove these types of redundant/useless signals and then convert the file. The following signals are removed:

1. Signals with frequencies above and beyond the auditory spectrum (less than 20 samples per second and more than 20,000 samples per second).
2. Low amplitude signals (of any frequency) in the presence of certain types of signals of much higher amplitudes.

Codecs remove fractions of the original file. While some remove only the most inaudible of the sounds, leading to an output MP3 that is still considerably large, some remove a sizeable portion of the whole file, retaining only the signals deemed most essential for the listening experience, and produce much smaller files. Most codecs allow you to make this decision regarding what quality to retain, through the concept of bit rates.

Bit Rates

Most codecs used to rip CDs into MP3 files allow you to select a bit rate. This lets you control how much of the original file will be removed, as well as the quality and file size of the MP3 file. A 128 kbps MP3 file will use 128 kilo bits of data for every second of playback. Thus, the size of the file (in MB) will be Bitrate (in kbps) * length of the file (in seconds) / 8 * 1024.

A bit rate of 128 kbps is often high enough to make the final MP3 file virtually indistinguishable from a CD version of the same song and is hence popular. Lower bitrates often lead to perceivable differences in quality in high end speakers.

While you larger bitrates to maintain quality on a complex file with a large amount of randomness, single-instrument audio files, often retain the original quality even at lower bit rates.

While earlier MP3s used the same bit rate throughout the file, more recent ones have started using the concept of variable bit rate (VBR) where a different bit rate is used depending upon the types of sounds in each frame of the MP3 file, leading to much higher efficiency in compression while maintaining the quality of the file. The downside is that the file size is lesser than in the case of constant bit rate.

OTHER FORMATS

In addition to MP3, some of the other compression formats are:

MP3PRO:
A combination of MP3 with a technique known as spectral band amplification. Here, sounds in different frequencies are encoded separately, MP3PRO offers comparable sound quality at file sizes often half of that in MP3.

OggVorbis:
This open source, free compression mechanism produces similar quality to MP3 at much lower bitrates and file sizes.

Windows Media Audio (WMA):
A competing proprietary technology developed by Microsoft, WMA offers different codecs for different applications such as music and voice. It also has support for digital rights management, allowing an online vendor to prevent copy and redistribution of a track. This is a crucial technology that is lacking in MP3.

While each codec has its own advantages and disadvantages, current popularity, support on personal players and widespread usage has ensured that none will compete with MP3 for a long time to come.

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Getting High on BSD

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Things are slightly different in the IT arena, more specifically as a PC user. Switch to Linux, and you are part of an exclusive club that only grants membership to one in a 100 PC users. But, if 1 per cent is still too crowded for you, get BSD. With a 0.01 per cent market share of PC users (1 in 10,000), switching to BSD is as close as you can get to running your system on a custom OS.

Requirements

System devices

Since hardware manufacturers are not too enthusiastic to release non-Windows drivers of their products, the availability of BSD drivers of the latest hardware is not guaranteed. To be on the safe side, it is best to get a distro with a release date later than the purchase date of the hardware, on which it will be installed. And having a system built with components of popular brands such as Intel, Realtek and Creative goes a long way in facilitating the search for drivers. FreeBSD is accompanied by a hardware compatibility list, which can be perused to be certain of success, or as is usual we can visit it if the installation fails!

FreeBSD takes up about 1 GB of space to install a basic GUI version. Depending on the packages you intend to install, you need to allocate more space. 5 GB space should be adequate for installing the OS with either of the main bundled window managers – KDE or Gnome. Those not acquainted with either window manager can install both, after reserving about 10 GB of disk space.

Preparing the hard disk

If your hard disk already has unpartitioned disk space or an existing partition can be deleted, the in-built partition editor is all that is needed. But, unlike the disk managers that are available with Linux distros, the FB partition editor cannot resize existing partitions. The process of freeing up disk space is complicated due to this. The best solution is to get a Linux live CD and use the resizing tool to squeeze existing partitions to free about 5 GB of space. Of course, any partition modification process is risky, and it is best to make a backup of your data to cover any eventuality.

FB uses the term "Slice" to denote disk area. In a Slice, partitions are carved out to allocate space for different files. In common parlance, a Slice would be equivalent to an extended partition, with logical partitions within it. FB recommends a root `/` partition to store core OS files, a `/usr` partition to store user files (including programs etc) and a `/swap` partition for temporary storage.

Installation

FB is available as a DVD or as a pack of 5 CDs. To start off installation, pop in the bootable CD1 into the optical drive, and modify the boot order in the BIOS and restart the PC. FB boots up and presents a boot menu to choose the mode of boot. For most users, the normal boot should be selected. If the





NetBSD is considered the most widely ported OS, capable of running on over 50+ hardware architectures—including a PS2, and this toaster

Yahoo!
A long time user of and contributor to FreeBSD which powers many of its servers

system crashes midway during the installation, you can restart the system and try booting with ACPI disabled.

The next step is to allocate disk space. This is done in two steps—first a slice has be to created, and then partitions need to be created in the slice. For creating slices, the Fdisk partition editor is launched. Here you can view the partition table displaying the existing partitions in the drive, and the file systems on each. If unused space is available, that entry will already be highlighted and you can create a slice in that area by using the `Create Slice` command option displayed on the page. The size to be allocated for the slice can be set next ("5G" to represent 5 GB), and finally the file system needs to be set. FB can only be installed on a file system with id 165, and this is the type preselected.

After a slice has been created, the boot manager installation screen appears. Here one can choose whether to install the FB boot manager, or just write a standard MBR with no boot manager, or leave the MBR unedited. Using the first option is recommended, since this automatically includes any existing entries in the present boot manager. It needs to be noted, that unlike the boot manager installation process in most Linux distros, there are no options to edit the entries or change the default settings. Nonetheless, the FB boot manager is satisfactory.

After the boot manager is installed, the disk label editor is launched which can be used to carve out space within the slice for different mount points/disk labels. There is an auto option that can set the recommended partition labels and sizes without any intervention, and in most cases that is sufficient. If you would like to manually allocate space, you can first Create a partition, then allocate the space for it, and finally set a disk label. A `/` label denotes the root partition, without which the installation will not proceed. It is advised to allocate separate partitions for other mount points such as `/usr` and `/var` to segregate the system files from the rest, for ease of maintenance. If separately set, the size of the `/usr` partition needs to be the highest since this is where bulk of the programs and user settings are going to be stored. If the partitions look fine, the changes can be saved by using the Finish option.

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Once the Finish option is selected, the distribution selection screen comes up. Here one can set the different broad categories of applications that need to be included in the installation. A brief description of the choices is also provided. Here it is best for first time users to choose the "X-User" option. This will install all packages and the X window system, without their source files—which are needed only if the user intends to customise the installation by tweaking and compiling the source code. Selecting any option in this menu also brings up a screen asking for user permission to install the ports collection. Here it is recommended to choose Yes. The Ports system is described in the section on installing applications. After selecting the distribution option, you must proceed to the next step, by exiting this screen.

The next screen asks for the location of the installation files. The choice here is obvious—FB CD/DVD.

A final confirmation is sought before the process continues. Please note that so far no changes have been made to the disk. And if the process is aborted here, the changes made in Fdisk are not applied. So curious users can navigate unto this point without fear of data loss on the hard disk. Once the user gives his assent on this screen, the installation begins and doesn't require user interaction in between.

Once the installation is completed, a screen pops up offering the user the opportunity to set post-installation options. Do not skip this stage. On giving the go ahead here, a sequence of screens appear requiring user responses to different queries. Through these screens various system parameters are set. First, the detected network devices can be configured. If you are using dynamic IP based broadband connection through the LAN port, it is advised to plug the cable in and switch on the modem so that the DHCP settings are correctly detected.

Alternatively, if you are using a static IP for your system these values can also be entered. Other screens that offer to configure other services like FTP and NFS can be dismissed for the time being. Other options like time zone selection, mouse function testing can also be performed. Creating a user account is recommended at this stage, and one of the screens accomplishes that. It is critical to add a system manager password, since sans this it would not be possible to login into the freshly

```
fset       Size(ST)       End      Name  PType       Desc  Subtype    Flags

      0          63        62         -     12     unused        0
     63    51199092  51199154    ad0s1      4 NTFS/HPFS/QNX        7
51199155    40949685  92148839    ad0s2      8    freebsd      165
92148840     1012095  93160934    ad0s3      4 linux swap      130
93160935    24049305 117210239         -     12     unused        0
                                                                    
                                                                    
                                                                    
e following commands are supported (in upper or lower case):

= Use Entire Disk   G = set Drive Geometry   C = Create Slice   F = `DD' mode
= Delete Slice      Z = Toggle Size Units    S = Set Bootable    | = Wizard m.
= Change Type       U = Undo All Changes     W = Write Changes

e F1 or ? to get more help, arrow keys to select.
```

Allocating disk space

installed system. The screens for these functions are straightforward and require no elaboration. Once these steps are completed you are presented with an option to browse through the packages collection.

This will produce a screen listing the many packages that came bundled with the installation disks. As you can see the list is humongous. Of special interest to us are the entries KDE and Gnome. Both are windows managers that offer a much better user experience than the basic X windows system installed as part of the basic install.

The KDE system contains many packages, and rather than selecting each, a quicker way is to select the package titled `kde-3.5.10`. This will automatically select all the other packages as they are dependencies. It needs to be noted that the package selection is not as liberal as the routines found in Linux. So, selectively picking packages within the KDE framework is not allowed. If you try to deselect any superfluous package, say the personal information manager KPIM, a message stating that it is required by another package comes up. It is left to the user to figure out which the other package is. And there is no way to dismiss the warning and proceed at one's risk.

Similarly, the Gnome desktop manager can also be installed. If needed the other packages in the list can be browsed, and selected. Once the relevant packages are selected, the install command can be given. All selected packages are extracted and installed, and when this process is over, the menu can be exited. This brings us to the Post installation configuration menu. Most of the entries in this menu have been covered by the preceding sequence of screens, but there are some tools towards the end that are worth exploring.

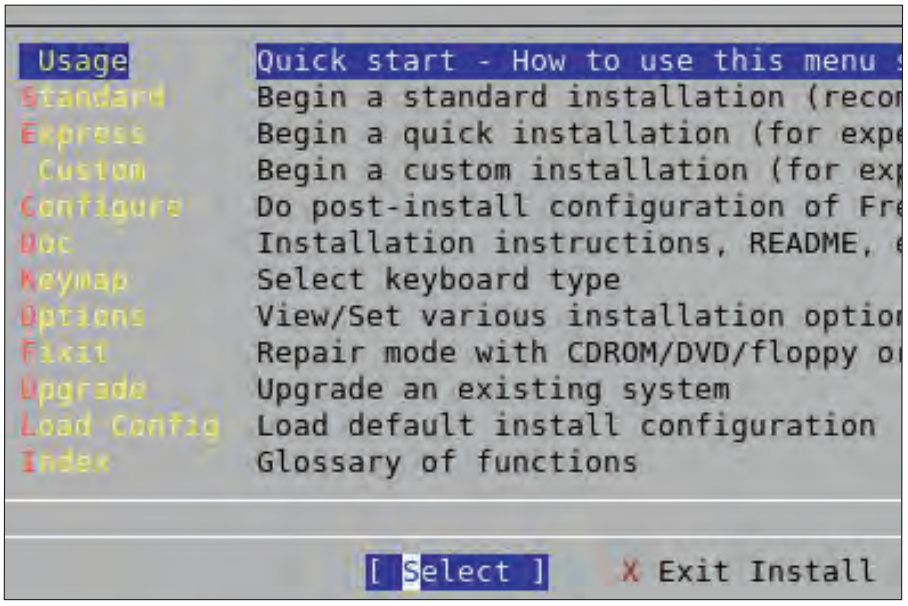
The `Configure system ttys` option needs to be used to load the KDE windows manager on reboot. If the installation routine is exited before this step, the installation of the windows managers does not automatically modify the default start up routine.

You need to manually edit the `/etc/ttys file`, which can be accomplished easily with the `Configure System ttys` option. Once selected, after a descriptive message, a command line text editor comes up with the ttys file loaded. The screen can befuddle many, so it is best to stick to the basics. Use the down arrow key to scroll down to the line starting with `ttyv8` under the section `# Virtual terminals`. As can be seen, a file "xdm" is being referred to, change the line from:

```
ttyv8 "/usr/local/bin/xdm
-nodaemon" xterm off secure
```

to `ttyv8 "/usr/local/bin/kdm -nodaemon" xterm on secure.` Change the `xdm` to `kdm`, and the `off` to `on`. Then save and exit the editor, by pressing the `[Esc]` button to bring up the Menu, select `Leave Editor` which will bring up the screen to select `Save Changes`. After the editor is closed, the post install configuration menu is brought up, which can be exited to reach the main menu from where the installation can be terminated. The system will reboot so the installation media should be removed before proceeding.

On reboot, you will be presented with the welcome sight of the KDM login window. Here you can login using the username and password of the user created previously. And you can select the window manager to be used for the session as well.



versatile OS and application management tool

Driver installation

The first challenge is to check if all the devices are detected and relevant drivers installed. The simplest way, without leaving the windows manager, is to use the device—play a song to check audio, try connecting to the Net to check the LAN connection etc. If any test fails, make a note of the device that seems to be non functional. In the case of this writer, the on-board sound was the spoilsport.

To check if a device has been installed, you need the `dmesg` command. This needs to be run as super user, and since a root user cannot log into the system through KDM one cannot issue commands at the terminal inside KDE as well. For all such purposes you need to access one of the other virtual terminals. There are 7 other terminals (ttyv1 to ttyv7) that can be used and each can be accessed directly by using the `[Alt] + [Ctrl]` + Fn key combination. So to access the second virtual terminal use `[Alt] + [Ctrl] + [F2]` combo, and so on. The Windows manager is loaded on the ninth virtual terminal (ttyv8), and can be accessed with the



"If 386BSD had been available when I started on Linux, Linux would probably never have happened"—Linus Torvalds

China
Is developing a secure OS for use in it's government sytems, based on FreeBSD

appropriate key combination. The beauty of multiple terminals is that one can issue a command in one, and not wait for the routine to end to execute another command, the latter can be entered at another virtual terminal and will be executed parallelly.

Get to a virtual terminal and log in as root and issue the `dmesg` command. This will output a flurry of system messages most of which will not be readable. So issuing a `dmesg | more` command is better since this will load a page of information and wait for the user to press the Space button before loading the next page. If you know the on-board audio chip name, then you can also search for the specific name with dmesg "Intel" or similar. This will only display those messages containing the text.

The next step is to load a generic sound driver (snd_driver) and check if the hardware gets detected. To load the driver issue the `kldload snd_driver` command. This will generate a list of entries if the hardware gets detected, and rerunning the `dmesg` command will show the details of the newly detected hardware. You can test if the audio system is working by playing a music file. To ensure that the appropriate driver is loaded at boot time the `/boot/loader.conf` file needs to be edited. Issue a `ee /boot/loader.conf` command and add the line in the following format `<sound_driver>_load="YES"`.

thinkdigit.com Give your feedback at http://www.thinkdigit.com/d/dec09/ POWERED BY e Scan™

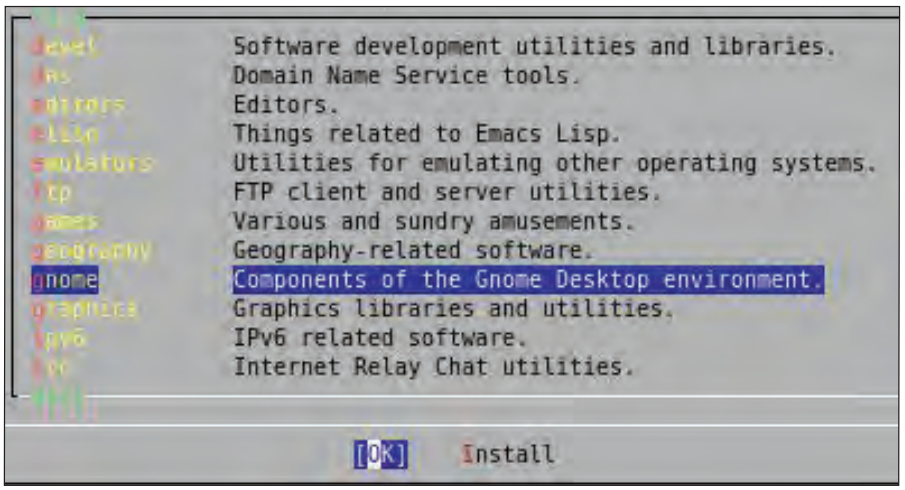
Application Management

FB offers two ways to get additional apps installed in the system. One is as Package and the other is as Port.

Package Management

Package refers to pre-compiled application executable/binary file. Since it is pre-compiled, the installation process is much faster. To install a package, the best way is to rely on the `sysinstall` tool which was also used for the first installation. `sysinstall` uses the command `pkg_add` in the background to do the actual installation, so one can also directly install an application by this command, bypassing sysinstall. But the menu driven `sysinstall` has its advantages.

To install applications from the installation media, first insert the media in the drive, and log in as root at any virtual terminal. There issue the `sysinstall` command. The familiar sysintall interface pops up. Here select the `Post-installation Configuration` menu, and in that menu select the `Install Pre-packaged software for FB` option. After the source is specified, the list of apps in the source are listed. We shall use the installation media to install Opera, so the source is `FreeBSD CD/DVD`.



Pre-compiled packages included with distro

`Opera 9.6` is present under the `WWW` menu. Once the entry is selected, and the install confirmed, the required files are extracted and placed in the appropriate folders.

Ports collection.

One way to get apps is to search the Ports tree. The `Ports Collection` system is a unique feature of BSD, and the `Ports` tree is at the centre of a system of installing applications after compiling them from source. During the OS installation, the user permission is sought to install the Ports collection, which gets stored under the `/usr/ports` path. There are thousands of folders in the Ports directory, with each folder containing information regarding an application of the same name. Please note, that the folder DOES NOT contain the source of the application, merely the information that would be needed to successfully compile and install the application when the need arises.

Unfortunately, there is no interface to meaningfully browse the Ports collection. The closest one can get is by downloading a listing of the Ports collection as HTML file from the freebsd.org site and searching for an application or activity by name. If there are matches, read the application description to verify if it fits the need. If an application name is known, then the search is much easier -from within KDE, the /usr/ports folder can be searched. It is important to note the path of the folder matching the application name.

Conclusion

At the end of the journey, it would be fair to state that the BSD membership doesn't come cheap and needs to be earned! The fact that BSD focussed on server based installations where GUIs are not welcome and automounting is a security threat explains the state of affairs to some extent. Newer distros that are better suited for desktop use and come in live CD format (which is considerably more attractive that slicing up the hard disk) can change this scenario.

Windows 7

Microsoft's latest operating system has been creating waves around the world because of its improved features and better security and ability to remain light on resources. Here are some tricks to getting more from the power of 7.

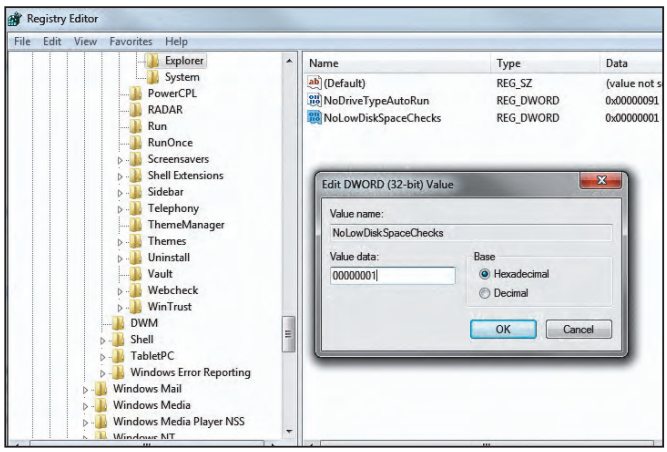


Windows 7 97
Mac OSX 98
Auto Hot key 99
Disk Management 101
Google Apps 101
DC++ 102
Fring 104
Blockposter 105
Pixarra's Twisted Brush 106
All my Movies 111

Disabling disk space check

To prevent those annoying pop-ups due to low disk space, type `regedit` in the run dialog box. In the left pane, navigate to `Computer\HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\Explorer`.

Right-click on any free space in the right pane, go to New and click on `DWORD(32) Value`. Name it `NoLowDiskSpaceChecks`. Double-click on it and enter `00000001` in the Value data field. Click `OK` to save and close.



You can stop annoying "low disk space" pop-ups by changing a few numbers

End programs

You can end programs that are either taking too long to respond, or don't respond at all. Navigate to `Computer\HKEY_CURRENT_USER\Control Panel\Desktop` in the left pane of Windows 7 registry editor.

Right-click on Desktop and point to new and click on String Value.

Name it `AutoEndTasks`. Double-click on it and enter `1` in the Value data field. Click OK to save.

Similarly, add an entry with the name `HungAppTimeout` and give it a value of `1500`.

Finally, add an entry named `WaitToKillAppTimeout` and set its value to `2500`.

Make sure that the value set in `HungAppTimeout` and `WaitToKillAppTimeout` entries are not too low and that the value of `WaitToKillAppTimeout` is greater than the other.

If you set it to a lower value, some programs that appear unresponsive while performing disk activity or rendering will be ended prematurely.

Faster previews

Windows 7's new taskbar shows the thumbnail preview of each application you have open when you hover your mouse cursor over the program icon. However, it does not appear instantly and there is a slight delay for animation. Although it looks better this way, you end up wasting quite an amount of time when your work involves constant switching between multiple windows because of the time lag.

To reduce the delay, navigate to `Computer\HKEY_CURRENT_USER\Control Panel\Mouse` in the left pane of the registry editor.

Double-click on `MouseHoverTime` key in the right pane and change its value from the default of `400` to around `200`. Careful, reducing it below `100` can lead to system hang-up in some situations.

Format sticky notes

You can format your sticky notes in Windows 7 despite the absence of a toolbar. All you'll need, is to remember keyboard shortcuts. Just select the text that you want to apply the new formatting to and use the following shortcuts:

Bold – `[Ctrl] + [B]`

Italics – `[Ctrl] + [I]`

Underline – `[Ctrl] + [U]`

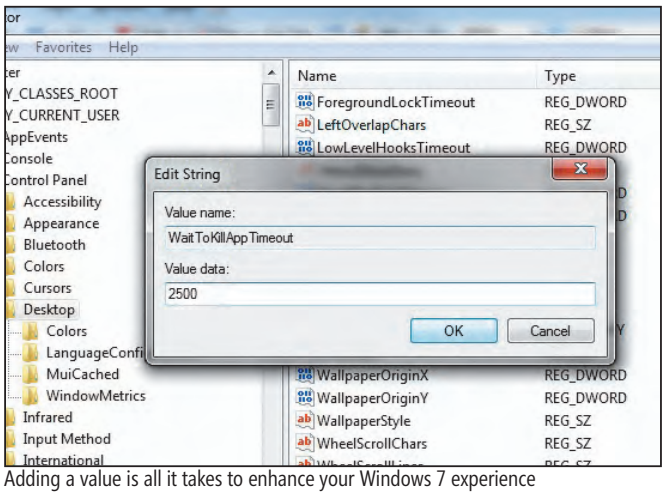
Strikethrough – `[Ctrl] + [T]`

Increase size of text – `[Ctrl] + Shift + >`

Decrease size of text – `[Ctrl] + Shift + <`

Apply bullets – `[Ctrl] + Shift + [L].`

Apply Numbering –



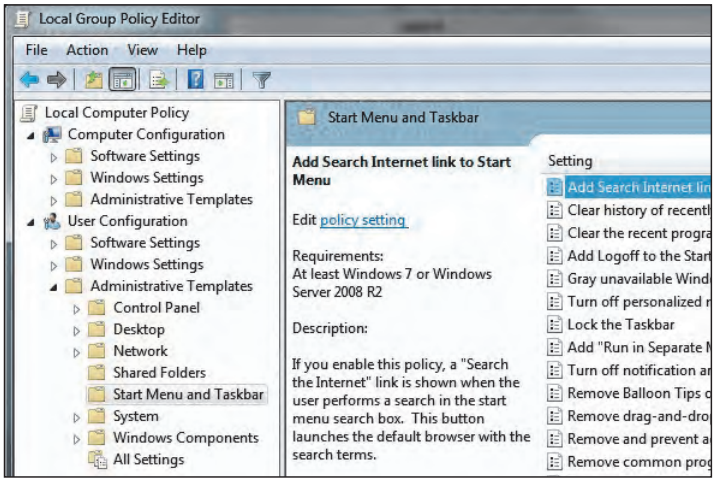
Adding a value is all it takes to enhance your Windows 7 experience

[Ctrl] + Shift + [L] (twice).

Apply alphabetical ordering – [Ctrl] + Shift + [L] (thrice).

Search online

You can search directly from the Start Menu of your Windows 7 using your default web browser. To enable this, you need to open the local group policy editor by typing gpedit.msc either in the Start Menu search box. You can also type this in the Run Command dialog box.



Right-click and Edit is all it takes to add functions to your Windows 7 experience

In the left pane, navigate to User Configuration > Administrative Templates > Start Menu and Taskbar.

Right-click on 'Add Search Internet link to Start Menu' and click on Edit.

Select the enabled bullet and click on Apply to save.

Aero on old systems

Windows 7 automatically disables Aero on slower systems to save resources.

However, you can still enable it by brute-force in case you want to enjoy the smooth window transitions and transparency, compromising on system performance, of course.

In the left pane of the registry editor, navigate to Computer\HKEY_CURRENT_USER\Software\Microsoft\Windows\DWM.

Right-click on any free space in the right pane, go to New and click on DWORD(32) Value.

Name it UseMachineCheck. Double-click on it and enter 0 in the Value data field. Press OK to save it.

Similarly, add an entry with the name Blur and also give it a value of 0.

Finally, add an entry named Animations and set its value to 0.

In the Command Prompt window (press [Windows] + [R] and type cmd), type the following commands to restart the Desktop Windows Manager Session Manager:

```
Net Stop uxsms
Net Start uxsms
```

Right-click anywhere on the desktop and click on Personalise > Windows Colour and Appearance and select Windows Aero from the available Colour Scheme menu.



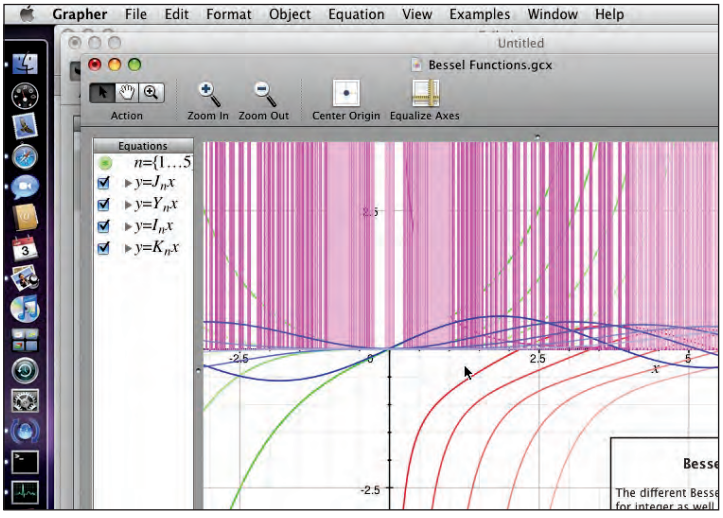
Search results are visible as you type

Mac OS X

Apple has stood a class apart for its style and ease of navigation. With tools such as Scripts, and simple tricks and tweaks, you can enjoy improved performance.

Apple scripts

AppleScript lets you control scriptable applications automatically. It's similar to AutoHotkey in Windows and lets you generate scripts to do monotonous and repetitive tasks such as resizing images automatically, and outputting your signature with a key combination. You can use sample scripts from http://developer.apple.com/applescript/ and then compile and run them using the in built AppleScript editor.



Solving graphical equations just got easier with two clicks

Graphical equations

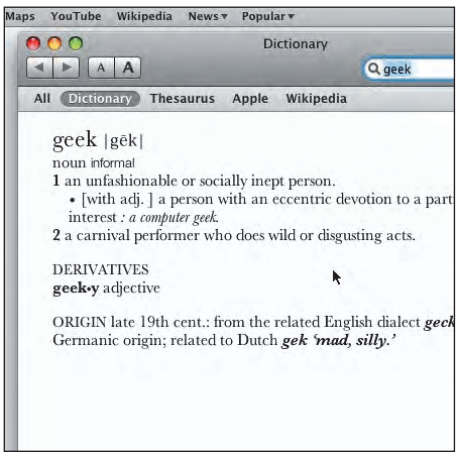
With Grapher, you can create appealing 2D and 3D graphs for almost any equations. To access this, click on `Go > Utilities > Grapher`. It can handle a wide range of coordinate systems (polar, cartesian, logarithmic and spherical) and offers lots of canned equations and mathematical building blocks for you to enter your equations. If you are a calculus student, you can even use this to calculate values, intercepts, derivates, integrals, summations and products.

Switch calc modes

You can switch between the various modes in the calculator (simple four-function memory calculator mode; scientific / programmer mode for students, developers and scientists; Conversion mode that has the ability to perform conversions on anything from area, volume, temperature and speed in both US and metric measures; and currency conversion mode for world travellers) by repeatedly clicking on the green round button at the upper left corner of your application.

Search is easy

There are several ways to look up a word in OS X. You can use the Dictionary widget in the Dashboard `[F12]`, the standalone Dictionary program, by highlighting a word in various Mac and third-party applications like Mail, Stickiesa and Text Edit. Right-clicking on it and clicking on 'Look up in Dictionary, or even in your web browser by using the `dict://` prefix before your word in the URL bar.



With an in built dictionary, you no longer need the net

Free calculator

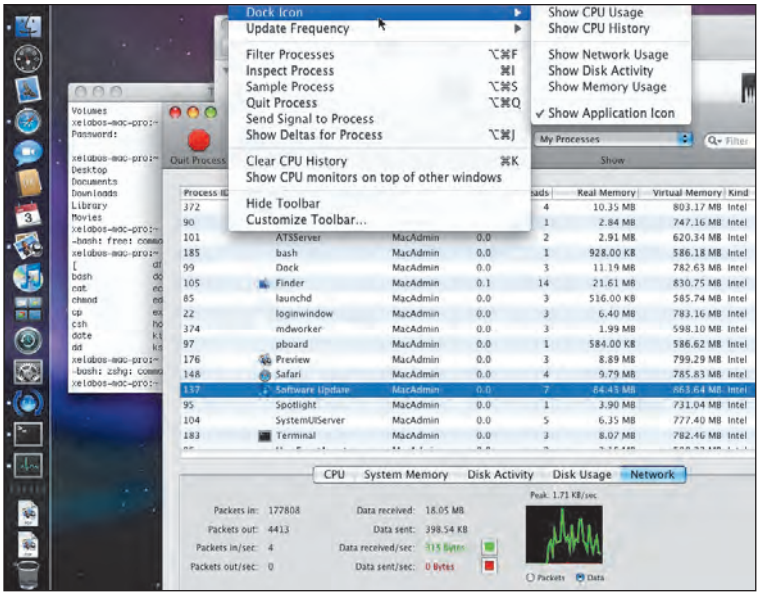
You can perform calculations from within your programs such as Text Edit, Mail, File Maker and various supported third-party applications in OS X. Just type in your equation, select it and press `⌘+Shift+[8]` to replace it with the right answer.

Activity Monitor on your dock

Activity Monitor gives you the option of displaying a constantly running graph of system usage right in your Dock. Go to `View > Dock Icon` and choose which activity you want to be visible there. You can even have it floating in a bar at the edge of your screen by going to `Window > Floating CPU Window` and choosing the position where you want it to be placed.

Managing passwords

OS X comes with an in built password manager. To access this, go to `Programs > Utilities > Keychain Access`. It can be used to store all your passwords for network access, file servers, web sites, FTP servers and other secure items. You can even create secure notes readable only in Keychain. As long as you remember your system password, you need not memorise your other passwords as Keychain will recover it for you.



With Apple, your regular "task manager" can be docked

Serious spying?

If you're familiar with UNIX network diagnostics, OS X can be used extensively for internet detective work. You can find all the standard internet tools such as NetStat, Ping, Traceroute, Finger, Whois and Port Scan by going to Network Utilities. The interface provided is excellent for common networking tasks and gathering information about web sites and netizens.

Speech control

With 'Voice Over' you can control menus and buttons without ever using the trackpad or a mouse. You can find it in Utilities.

It is completely customisable and configurable so that you have complete control over how it is used, how your computer is navigated while using it, how it handles web pages, and how your keyboard and the multi-touch track pad controls your Mac.

NOTE

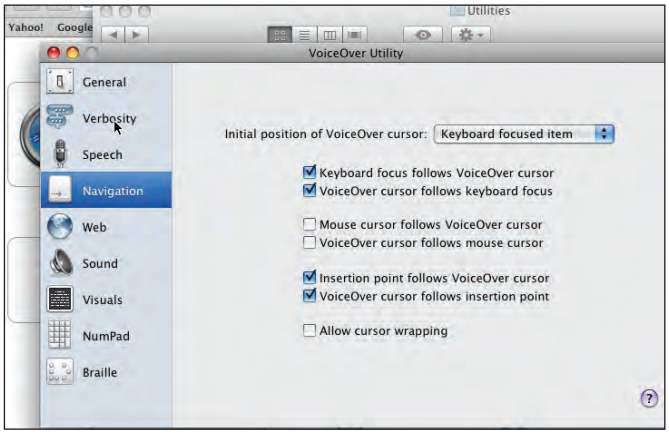
Beware of the fact that some third-party applications like Mozilla Firefox have their own way of storing passwords and do not use Keychain.

Run graphical UNIX applications on Mac

Mac OS X comes with its own inbuilt version of the X Windows system meant to run UNIX graphical applications that are otherwise not compatible with OS X. Click on Go and select Utilities in the menu that pops up. Double-click on X11 and you are presented with a X Windows interface to accomplish what you intended.

AutoHotkey

If you thought command line and scripting was restricted



If you're too lazy, just let Mac read the page out to you

to Linux and Unix, you're mistaken. With AutoHotkey, you can speed up your repetitive tasks in Windows.

Generate signatures

AutoHotkey can be used to generate all your signatures with the use of its super handy text replacement feature. You can create shortcuts for each signature and so whenever you need to reproduce them, just type the 3 or 4 character long shortcut and it will automatically expand to your full signature.

Open Notepad and save the file as `sig.ahk` (All types).

Type the following in the file:

```
::sig1::  Your Name[Enter]Your Title[Enter]Your Company Name[Enter]Your Contact Info
::sig2::  Your Name[Enter]Your Phone number
::sig1::  Your Name[Enter]Your email address
```

Save the file and load the script by double-clicking on it.

Now whenever you type `sig1`, it will automatically be replaced by whatever it points to. It is important to choose the keyword for your signature such that it is easy to remember (you can replace `sig1`, `sig2` with `wrks` for work signature and `prss` for personal signature). You should also make sure that it is not a common word that could unintentionally be replaced.

Assigning shortcuts

If you access a particular web site often, it's convenient to have a keyboard shortcut that takes you directly to the web page without you going through the whole process of opening your web browser, keying in the URL and then getting to it.

Open Notepad and save the file as `website.ahk` (All types).

Type the following in the file :

```
#1::Run http://www.thinkdigit.com;
```

`#` represents the Windows key on your keyboard

Save the file and load the script by double-clicking on it.

Now whenever you press `[Windows] + [1]`, your default web browser will open with the site that you have specified in the file. You can set all the web sites you browse frequently with similar shortcuts and save time and trouble.

Similarly, you can also assign shortcuts to files and folders by typing

```
Run "C:\Digit\"
```

or

```
Run "C:\Digit\FT.doc"
```

in the script file that you made in Notepad instead of the web site address.

For launching applications, the code will be similar to `#f::Run Firefox`. This will open Firefox when you press `[Windows] + [F]`.

Quick search

AutoHotkey script lets you quickly run a search on Google or Wikipedia. Just highlight your search term and press a hotkey!

Open Notepad and save the file as `googlewiki.ahk` (All types).

Type the following in the file :

```
#g:: Send, ^c Run, http://www.google.com/search?q=%Clipboard% Return
#w:: Send, ^c Run, http://en.wikipedia.org/wiki/Special:Search?search=%Clipboard% Return
```

Save the file and load the script by double-clicking on it.

After selecting the text from any application, the hotkeys that we have configured in this script `[Windows] + [G]` for Google and `[Windows] + [W]` for Wikipedia will result in the search being performed in your default web browser.

Copy to Notepad

You can create a script to copy your selected text in Notepad.

Open Notepad and save the file as `sendtext.ahk` (All types).

Type the following in the file :

```
;^ represents the Ctrl key on your keyboard
;! represents the Alt key on your keyboard
^!v::
Send, ^c
Run notepad
WinWait, notepad
WinActivate
Send, ^v{Enter}
return
```

Save the file and load the script by double-clicking on it.

Now whenever you select text and press `[Ctrl] + [Alt] + [V]`, Notepad opens up with your selected text ready to be edited or used in other ways.

Insert date and time

Sometimes it is necessary to note the current date and time while taking notes or researching on some work. You can do this with a script in AutoHotkey that inserts it when you type `itime`.

Open Notepad and save the file as `datetime.ahk` (All types).

Type the following in the file :

```
::ndate::
FormatTime, CurrentDateTime,, M/d/yyyy h:mm tt  ; It will look like 9/11/2009 10:50 AM
SendInput %CurrentDateTime%
return
```

Save the file and load the script by double-clicking on it.

Navigation

You can configure keystrokes that correspond to backward and forward button on web browsers, Windows explorer and other such applications. For example in this script, `[Ctrl] + [Alt] + [F]` corresponds to the forward button and `[Ctrl] + [Alt] + [B]` corresponds to the back button.

Open Notepad and save the file as `backfor.ahk` (All types).

Type the following in the file:

```
^!f::Send {Browser_Forward}
^!b::Send {Browser_Back}
```

Save the file and load the script by double-clicking on it.

Disk Management

You can limit the amount of disk space that each user can utilise using the feature called Disk Quota in both Windows 7 and Vista if you share the same computer with other people and need to properly control disk usage.

Enabling disk quota

In My Computer, right-click on the hard-drive partition on which you want to enable this feature and then click on Properties.

Go to the Quota tab and tick the `Enable Quota Management` checkbox.

Next, you can check the `Deny disk space to users exceeding Quota limit` checkbox.

Select the `Limit disk space to` radio button, and then configure it to the amount that you want each user to have and also the disk space usage at which the user needs to be warned.

Click on Apply and then OK to save the settings.

Get filenames from directory

If you want to see a list of all the files and folders contained within a particular directory, say your music folder, you can do it with a simple batch file.

Open Notepad and type the following code.

```
@echo Saving the directory listing to c:\listoffiles.txt
@dir %1 /A /S > c:\listoffiles.txt
@REM the /A switch lists all hidden and system files also.
@REM the /S switch lists all subdirectories and their contents also.
@notepad c:\listoffiles.txt
@pause
```

Save it as `List.bat`

Navigate to the folder where you saved it, right-click on the file and click on create shortcut.

Now open Windows Explorer and type `shell:sendto` in the Location bar.

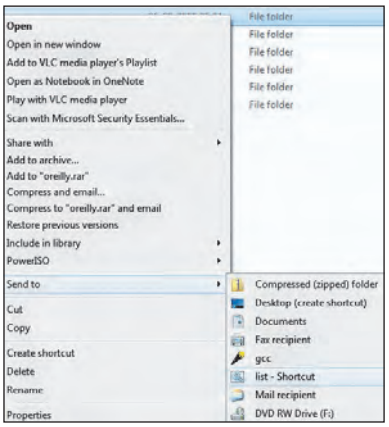
Drag the shortcut into this folder. Now when you want the list of files in any folder, right-click on the folder, point your mouse cursor to 'Send to' and click on List.

The list of files will get saved as `C:\listoffiles.txt` and it will open in Notepad. You can save it under a different name or print it if you want it permanently.

Change drive letters

Mounting partitions as folders in other partitions helps keep your data very simple and easily organised. You can even do it with an external hard drive. For instance, you can store all your music in it and mount it as `C:\Music\`.

To mount hard disk partitions as folders, open Control Panel from the Start Menu.



Get the file list with a simple "Send to"

Double-click on Administrative Tools and select Computer Management.

In the left pane, Navigate to `Storage > Disk Management`.

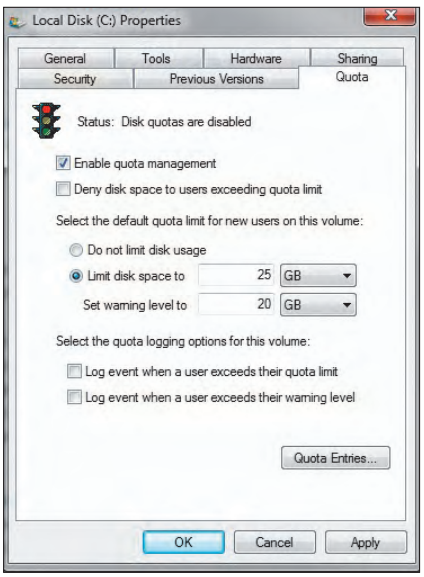
Right-click on the partition you wish to mount as a directory in the lower right pane and select `Change drive letter and paths...`

Select the current drive letter and click on Remove.

Then click on Add. Choose the `Mount in the following empty NTFS folder:` button.

Browse to the desired volume, `C:\` in our case and add a directory for your drive by clicking on the New Folder button. Click on `OK` after you are done in all the subsequent windows.

If you wish to return things back to the way they were, simply delete the current drive path (the directory location that you choose) by repeating the same procedure, and then choose a drive letter instead. This can also be used to change the drive letter.



Set disk usage limits for optimum utilisation

Block pen drives

Pen drives can be used to upload malicious code to your computer – either deliberately in the case of remote-spying software or by accident in case of viruses. They can also be used to copy and steal confidential information from your computer when left unwatched.

Whenever a new USB device is plugged in to a USB port of your computer, Windows checks its device and hardware ID to determine if it's a storage device or not. If it determines that it is indeed a mass storage device or a pen drive in common language, it will load the appropriate driver, and display the device as a drive in Windows Explorer. All of this is handled by the `usbstor.sys` driver.

So, to block your computer's ability to use USB drives follow these steps: Go to `Start > Run` and type `regedit` to open the registry editor.

In the left pane, navigate to `Computer\HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\USBSTOR`.

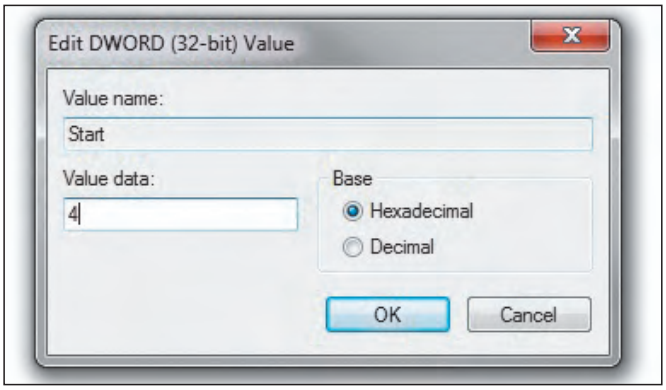
Double-click on the entry named `Start` in the right pane.

Change the `Value data:` field to `4`. Press `OK` to save it.

If you want to revert back to the default configuration and enable your computer's ability to use USB drives, just set the value of `Start` to `3` again.

Google Apps

There's more to Google than plain Gmail, albums and net-



Change the Value data to '4'. To revert, make it 3

working. You can use Google to sync all your contacts and data across your mobile, PC and the web. Also, you can use Google to store data online.

Google Sync

Synching your data isn't as complicated after all. In fact, all you need to do is set up Google Sync on your PC and cell phone, and let it synchronise.

To set up Google Sync on your PC, go to http://www.google.com/sync/pc.html. Install the 700 kb download. At the end of installation, select two-way synchronisation. Also, choose how often you want Outlook and Google Calendar to synchronise.

After this, set up Google Sync on your mobile phone. To do so, go to http://www.google.com/sync/index.html from your cellphone browser. Choose your handset model. If you have a Nokia phone, select Symbian S 60. Install Google Push email if you use the iPhone or BlackBerry. For your Nokia S60, download the Nokia Business suite software, available for free. Once you're done, you will be redirected back to the Google page, where you will be given step by step instructions to setting it up for Google Sync. Here too, specify options such as 2 way or 1 way synchronisation and synchronisation frequency.

Now add a calendar event or contact to your cellphone calendar, wait for the time you have specified in your cell phone and PC for synchronisation, and watch the contact or event appear in your Microsoft Outlook. Google Sync would access the internet while synchronising. If you're charged by data transfer you could end up with a higher bill.

GBridge

While Gtalk is still light, connecting almost instantaneously, those who require the advanced functions such as file sharing can still get it with Gbridge. GBridge is not a Google product.

Download the 2.3 MB exe file from http://www.gbridge.com/. Upon completion of download, double click to begin the installation process. While installing, you will be warned that one of the drivers (A virtual private network driver) does not have the required security credentials. Choose 'install anyway' if you wish to use GBridge.

Once the installation is done, enter your gtalk id and password to get connected. The first step would be to invite one of your friends to use GBridge. This can be done by right clicking one of your online friends and clicking "Invite to use Gbridge". Once this is done, if he / she accepts the invitation, you can share files, desktops, etc.

The GBridge interface

Sharing files: All you need to do for this is click on the "Create Secureshare" button. Browse and select the folder you want to share. In the small menu that pops up, choose your friends you want to share this with. You can also select the "Allow all friends" option. In this menu, you may also opt to exclude certain types of files from the share (bottom of the menu) or to password protect the share.

A GBridge secureshared folder is constantly synchronised. However, you can browse the folder and subfolders even without synchronisation, as it automatically generates thumbnails and slideshows. You can view secureshare folders by clicking on your friend's name in the user's list. This gives rise to an expandable menu in which his various secureshares can be seen. Double-click one to open it.

Share desktops: To do this, click the DesktopShare button. It will perform an auto test of your system settings and then allow you to share desktops. Once you've turned on this feature, you can share desktops with your friend by right-clicking his name on your contact list.

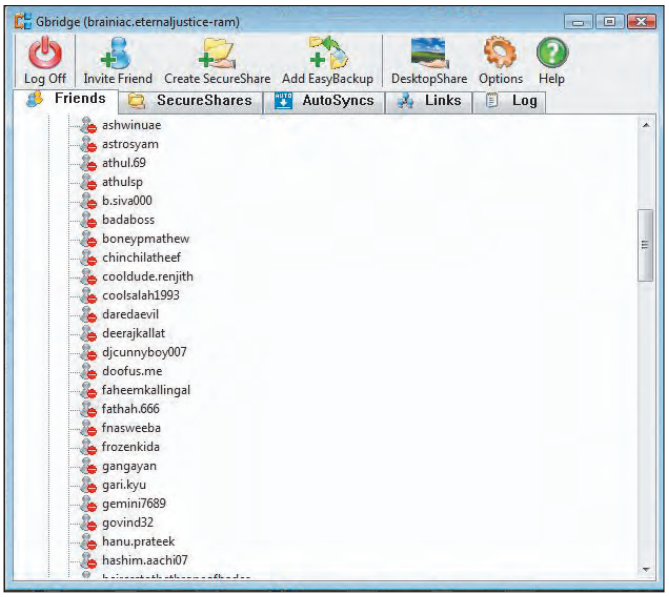
Backing up data: You may back up data on your computer to a location either on your computer, or on another computer on which you have GBridge installed. To do this, first turn the data you want backed up into a secureshare. Once this is done, click on Add EasyBackup, choose the secureshare you just created and choose the location to which you want it backed up. If you choose a remote computer, you will have to grant permission from that computer for this function.



The Google Sync services page

DC++

One of the most popular clients for file sharing over hubs (using the Direct Connect pro-



The GBridge interface makes sharing easy

tocol) is DC++. Free and open source, DC++ is stable and light on resources.

Choosing the client

Some of the popular DC++ clients for Windows are DC++, StrongDC++ and ApexDC++. If you are a very casual user and do not care about the extra features then you can use DC++ otherwise go for StrongDC++ or ApexDC++.

Autoconnect

You can have different nicks and descriptions and even away messages in different hubs if you add them as favourites.

Add a hub to favourites by typing /fav in its mainchat or right-clicking on the hub's tab and clicking on `Add To Favorites`.

Access the favourite hubs window by clicking on the gold star in the toolbar. You can also use the keyboard shortcut `[Ctrl] + [F]`.

To connect to the hub on start up, make sure the checkbox to the left is checked.

Right-click on the hub name in the list and choose properties to personalise your settings for that hub. If any field is left blank, the default settings will be used for that field.

Search interval

The default minimum time interval between searches in Apex and Strong DC++ is set to 30 seconds. This gets irritating when you search for many files. This interval can be reduced to 10 seconds.

Navigate to `Advanced > 'Experts only'` in settings

Change the Minimum search interval from `30` to `10`.

In DC++, the default minimum search interval is `0`.

Associating file types to folders

ApexDC++ and StrongDC++ can automatically download files to folders based on their extension.

Navigate to `Downloads > Favorites` in Settings.

Click on `add folder` and enter the name, path and the file extensions which should be downloaded into this directory.

If you add a favourite folder with extensions AVI, MOV all the files of these extensions will be downloaded to this directory.

File preview

If you're on a LAN, chances are that a large video will get downloaded in under 10 minutes. However you don't have to wait for the file to finish downloading before you start watching it if you use Apex or Strong DC++.

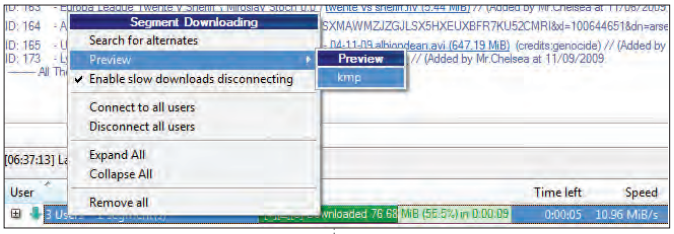
Navigate to `Downloads > File Preview` in Settings and click on `Add`.

Fill in the Name field with the name of the media player you want to use.

For the 'Application' field, browse and choose your favourite media player. Don't change the 'Arguments' field.

Finally, type in the extensions for which you want to use this media player to preview.

You can preview a file when it's being downloaded by right-clicking on its download progress bar and going to preview and choosing the media player of your choice.



You don't have to wait for the video to download completely before viewing it

Enabling web server

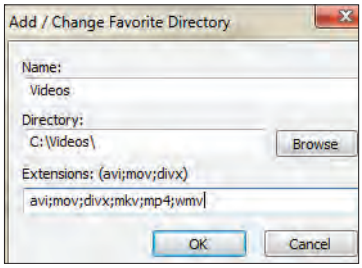
Apex and Strong DC++ have an in-built web server that remotely controls your DC client. You can use this to search and download files remotely or monitor uploads. You can even shutdown or log off your system remotely using this web server. You cannot access chat or send PMs using the web UI.

To enable the web server, navigate to Advanced in settings and check the `Enable Webserver` option.

Go to `Experts only` in Advanced and set the username, password and port. You can now access the web server by going to the URL http://ip:port/ and logging in using the username and password you set earlier.

If you want to access the webserver over the internet and you don't have a static IP, you can use a service like no-ip (www.no-ip.com) which creates a free hostname to point to your dynamic IP.

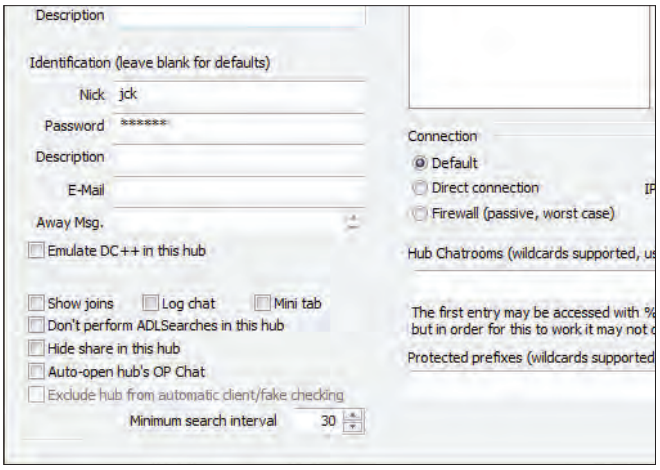
The webserver is not available in DC++



DC++ organises your files in to specific folders

Choose the right file listing method

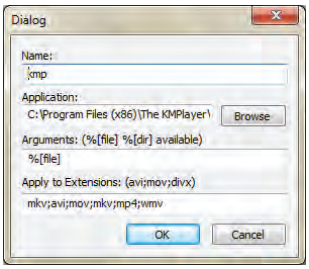
Apex and Strong DC++ have two file listing methods: `Get file list` and `Browse file list`. Get file list downloads the entire file list to your computer before opening it, and is the better option if you're on a LAN or have a very fast internet connection. Browse file list downloads only the partial list and downloads more parts as you



You can increase the default search interval from 0 to between 10 and 30

browse deeper into the file list. This is only useful if you have a slow connection.

You can change the default action when you double-click on a user in the user list. To do this, go to `Advanced > Experts only` in settings and change the `Userlist double click action` as per your preferences.



You can preview the files with a player of your choice

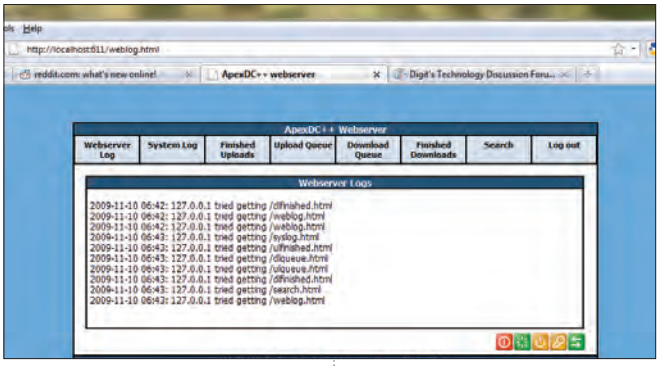
Secondary away message

You can also configure secondary 'away' messages for a specific time period. This feature is available only in ApexDC++ and StrongDC++.

Go to `Advanced > misc` in settings. Set the secondary away message and the time period during which it is active

Spam mainchat

In ApexDC++ and StrongDC++, you can spam the song currently playing in Winamp on mainchat by typing `/w` in mainchat. You can change the format of the spam in `Settings > Advanced`. You can download a plugin for ApexDC++ that adds support for other media players from the ApexDC forums (http://bit.ly/apexmpplugin).



DC++ lets you remotely control your client using web servers

Fring

Fring is a social media application available for a gamut of devices running various platforms like Symbian S60 (3rd and 5th edition), Java ME, iPhone, Windows Mobile 5 and 6 and even Linux.

Fring integrates the contact book you already have on your phone with your online contact and you can select a contact and then select which kind of call you want to make including Gtalk/SIP/Skype/Cellular based on the kind of network connectivity you have and the various tariffs. It supports a tabbed interface for each chat window and social media account, including a dedicated tab for file transfers (one of the very few mobile applications to support this) and contact book. Additionally, Fring also supports call history including mobile calls and roaming across various Wi-fi hotspots.

Check Connectivity

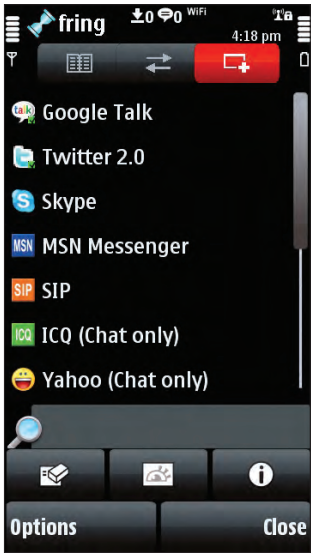
To check your connectivity, call the dummy user "Fring Test Call". It gives you a send/receive voice call option. Not only is the presence of a network determined, but the speed or connectivity strength too.

Fring can also be used as a miniature twitter client with full support of searching twitter.com for the latest tweets on any topic of your choice. Fring supports an intuitive interface, and is touch friendly.

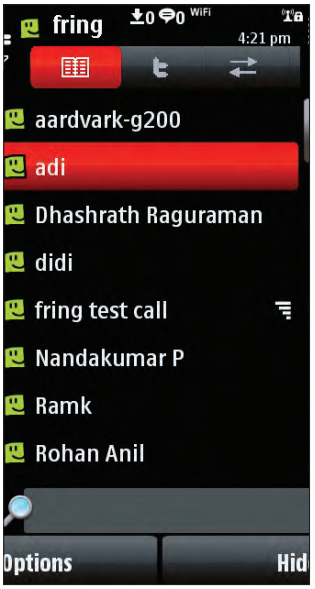
Improved experience

There are two common complains or annoyance reported by users. Fring uses GPRS even when a 3G connection is available. Although this may not make a significant difference with text, in case of VoIP calls, 3G would boost performance. To fix this, select 3G for voice calls. On your mobile device, switch to "UMTS" mode instead of "Dual Mode" or a "GSM/UMTS" mode. This will force Fring to operate only in 3G mode. In Nokia devices this can be found under `Settings > Connectivity > Network Mode`.

Don't get annoyed if you can't place a voice call to a Skype user, even after it says signed in. The fix for this is simple – just wait for a minute or so. What actually happens is that you first get signed into



Get all your IM services in one client



Networking is easy with Fring

Blockposter

The cost of a simple A2 size poster (four times the area of the conventional A4) can set you back by anything from Rs. 2,00 to Rs. 1,000. So how cool would it be if you could simply print your own giant-sized poster?

00.00

www.blockposters.com allows you to create your own giant-sized posters, and more importantly customise the content and the size so that it fits your wall. It allows you to upload an image on to the server, resizes the image, enlarges it and gives you a link where you can download the stretched image as a series of A4 size sheets.

The interface is extremely simple and easy to use. On the main page of the site, click on `Step 1` to get started. Most photographs or pics are smaller in size. However, if you find an image that is larger, you can always downsize it using programs like Photoshop or IrfanView.

00.10

Click on `Browse` to locate the file on your computer. Click on Upload. This depends on your internet connection and the size of the file. We played around with an image from a comic book.

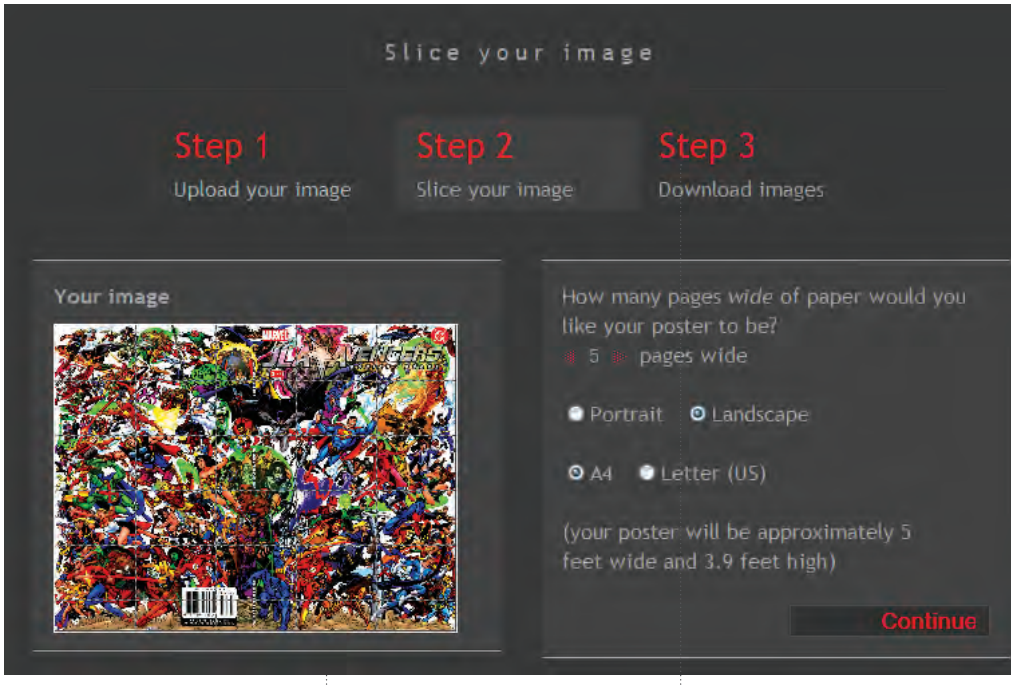
You then have to decide how wide you want your poster to be. The width is an integral multiple of the width of the standard A4 size sheet. So, it's advisable to figure out the space constraints on your wall. An A4 sheet is 11.54 inches high (approximately one foot).

If you're unsure of the size, feel free to experiment. As you vary your selection, the site will tell you how large your poster will be. We selected five A4 sheets, in the landscape position (horizontal) to arrive at a size of around 5 feet x 3.9 feet.

00.15

Your poster is split as PDF files. The PDF we downloaded was 3.3 MB, approximately 3.5 times the size of my original picture.

The images you download will be pixelated. That is, on close view, the image will not be of extremely high quality. The amount of blur that is visible on close range depends solely on the size of your image uploaded and how blown up you want your poster to be. Each page has borders. You may need to trim the image a little after printing to take care of the borders, though again, if you have no borders, the images might tend to overlap a little.



Slice your images

00.20

Stick the A4 size sheets sequentially on your wall using tape or glue.

Blocky images are considered quite artistic, so if you are of the same opinion, you won't mind a mildly pixelated image of your favourite icon or landscape scene.

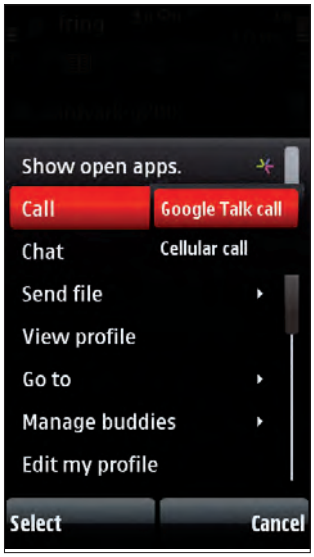
Now, the best part of the site is that it's completely customisable. Also, most sites that allow any degree of customisation have ads or embedded logos on the customised items. The image we printed was spread across 30 pages. Effectively, the cost of your poster is printing costs for 30 A4 sheets.

The entire process doesn't exceed 15 minutes. However, printing, trimming and putting the poster up may take you up to an hour, but it's easier than shopping online for artwork. Blockposters works whether you want to upload a photograph or a scenic landscape. Also, sites like www.deviantart.art have a lot of fan submitted artwork for your favourite books, movies or series.

00.25

Once you've put your poster up on your wall, take a picture and upload it to the blockposters gallery (http://www.blockposters.com/gallery.aspx).

The gallery will give you a decent idea of how good the pictures look when put up in your homes. It also showcases some of the most creative designs and applications of the software with user comments.



Fring lets you place a Gtalk call as well as cellular calls

your Fring account, which is like a meta account and then it connects you to your all other accounts, so it can take a while before you actually sign into Skype. Simple as it looks, it can be very annoying to open Fring every time only to find you not being able to make a Skype call.

Skype

With Skype extras, you can add functionality to your



With so much packed in, how could Twitter be left out?

bare bone installation. It is recommended to upgrade to Skype 3.0 or later version for Windows to use many of these functionalities.

Home surveillance

Sign in to your Skype account from your home computer. Set the Skype client to auto accept all incoming calls and launch the web cam functionality. Now from any remote internet enabled location, dial in to your Skype account! You have live video feed of your home. Since you wouldn't want any random person also to view your feed, switch off directory listing of your home surveillance Skype account.

Share the whiteboard

While Skype lets you chat, talk and see the other person, after installing the "WhiteBoardMeeting" Skype extra, you can collaborate in a much more enhanced manner. This is a fully functional whiteboard where you can insert text and images and share with multiple people at the same time. You can even have multiple whiteboards. Get it at http://www.whiteboardmeeting.com/. In case you're interested in a very simple whiteboard, try USeeToo at http://useetoo.com/blog.

Record audio

You would've wished to record your communications. Be it that sweet laugh of your little niece abroad or recording the call as proof, whatever be your reason PrettyMay is the answer for all call recording solutions. This is available in three different versions including a free version (allowing a maximum duration of 15 minute per call), it offers a gamut of features including answering machine, voicemail notification (including notification by email if you wish), on the fly MP3/WMA encoding, exporting of voice messages, recording voice memos and so on. Get it at at http://www.prettymay.net/index.htm.

Remote troubleshooting

With Mikogo you can easily transmit your desktop to the person you are communicating with. Not only can this be used for troubleshooting or remote support, but also for various product demonstration and presentations. You can share your screen with a maximum of ten people at the same time. Get it at https://extras.skype.com/1672.

Share your music

You share information about the current track you're playing using players such as iTunes, WinAmp and Windows Media Player with your contact list. Get WinAmp Mood at https://extras.skype.com/1892/view, Windows Media Player Info at https://extras.skype.com/2040/view, and iTunes Info at https://extras.skype.com/2041/view.

Pixarra's TwistedBrush

Pixarra's TwistedBrush Open Studio is a simple lightweight designing tool for the artistically inclined. You can download it from http://www.pixarra.com/download.html.

Brushes are custom designed to simulate pressure and motion. If you're using an oil paint, the paint will run out soon, so you need to give exact strokes. With water colour brushes, you're painting will be smooth.

Zooming

Zooming is essential in any design / art software. In TwistedBrush, it's quite elementary. Scrolling your mouse wheel down and up, zooms in and out, respectively. On a laptop, press + and - to zoom in and out. { or [will zoom it to 100 per cent.

Choosing brushes

The brushes in TwistedBrush come with reality effects. In the brush palette, you'll find a set of predefined and easy-to-modify brushes. You can also buy more brushes. You can modify size, opacity and density from the sidebar. Another easy way to access them is to right-click on your canvas while working with the brush tool.

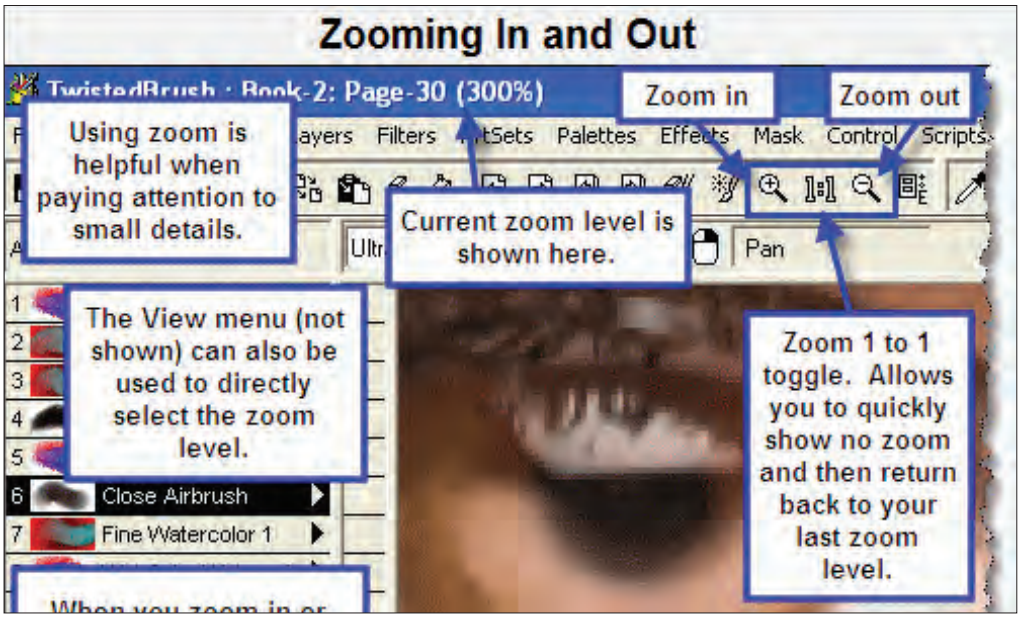
Choosing colour

Similarly, colour selection is done from the palette provided below the brushes. There are a series of palettes with different colours and viewing options. Check them out to see which colours you are comfortable with. Changing other features like RGB content, Hue, Saturation, Luminosity is also as simple as scrolling.

If you're unsure of how to get the colour of your choice, but you've seen it before, the colour chooser will help you get it. Again, as with the brush options, you may change colour by right-clicking the canvas. The same pop-up allows you to change colour options as well.

Brush options

The free version of TwistedBrush does not allow you to create or edit new brushes. However, while working, if you realise that there is a specific configuration you like to use



Zooming around

your brushes in, right-click the palette and click brush options to store the settings. The next time you use that brush, the size, density, opacity and other features will be retained.

Canvas

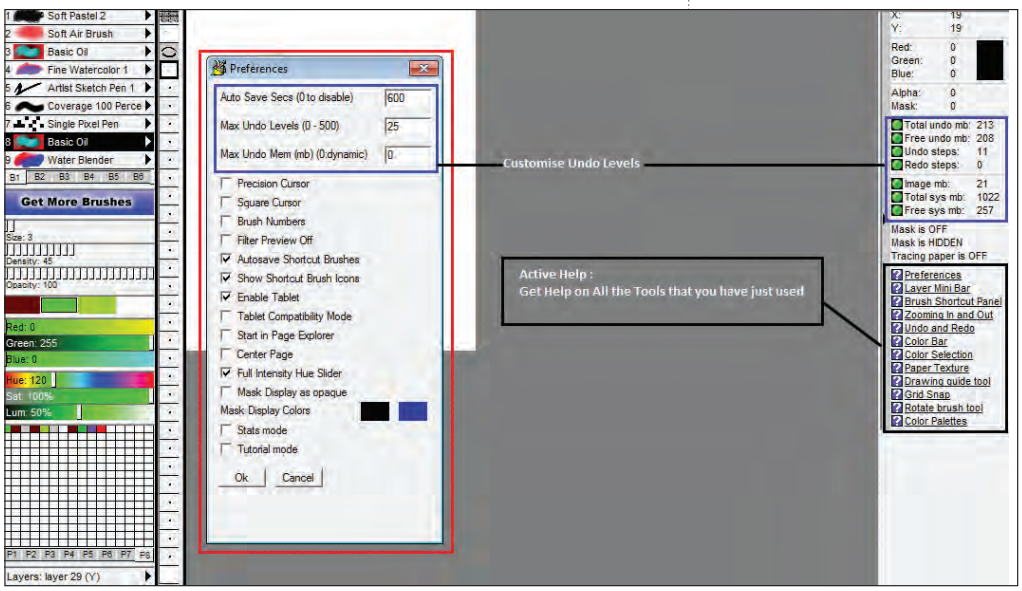
TwistedBrush allows you to configure the brush such that the canvas behind is also painted for a more realistic feel. For example, if you want to paint on wood or bricks, you can select the canvas accordingly.

Changing the mouse toolbar

The default mouse option to access the tools in the toolbar is the right-click. However, most users are accustomed to left-click. To switch between right and left, click on the mouse button on the toolbar. It toggles right and left click activation of the tools in the toolbar.

Filters

Most high end software come with inbuilt filters. Apart from modifying the canvas, filters allow you to explore various designs. Most common effects simulated include Blur, Water Colour, Distortion, Warp etc. Filters can be accessed from the `Main Menu Bar > Filters`.



Layers and Undo and Help

A useful utility is the Filter Panel or the Pattern Explorer accessible from the Filter Menu. Apart from having several presets, it allows you to tweak them to suit your artwork. You may also save your customised presets for later use.

Drawing aids

Concentric ellipses, squares and even perspective grids are useful in giving a 3D feel to your art. It allows for a maximum of 8 grids and/or drawing aids. Selecting grid number and grid type allows you to superimpose them.

Paint to AVI

You can record you work and export it as a video to share your work with others. This helps showcase exactly how you achieved your end result. There is an option on the tool bar, which initiates movie recording. This captures your every move into an AVI format. It can also be accessed using the `Menu Bar > Record > Paint to AVI`.

Undo

You can customise the undo tool. You can change the maximum number of times you may undo in the Preferences. A dock on the side also lets you know how many steps you have taken, and how many undo options you have.

Layers

To access layers while painting, a small dock on the side next to brush options lets you customise your layers. Double-click on a layer to make it invisible. This is a handy tool if you want to ensure your effects stay separate. Right-click on a layer to access other functions like moving up or down and even flattening or merging layers.

30 Minutes Expert

Abylon Shredder

Deleting a file completely off your computer is slightly difficult than merely sending a file to the Recycle Bin. Abylon Shredder has several useful features in addition to letting you delete unwanted data. We've included the sofware in this month's DVD.

00:00

To securely wipe files off your hard drive, click on the wipe files sub-menu and click on Abylon Shredder. Next, click on Add, and browse for the folder. Once the scanning is complete, it will show you a complete list of files that will be erased. Click on Wipe Files to completely delete them.

00:05

Abylon Dupe Finder scans the selected folders for not just files with the same name, but also for those with similar content. In case the drive or folder to be scanned for duplicates contains a lot of files, it is recommended that you use `High Speed Search Mode` which scans only the beginning and end of the file to check if they are similar.

If you are in a hurry to delete all that extra information, use the Fastmode delete option. In this case approximately 20 per cent of the files are deleted. Files smaller than 10 MB are completely wiped.

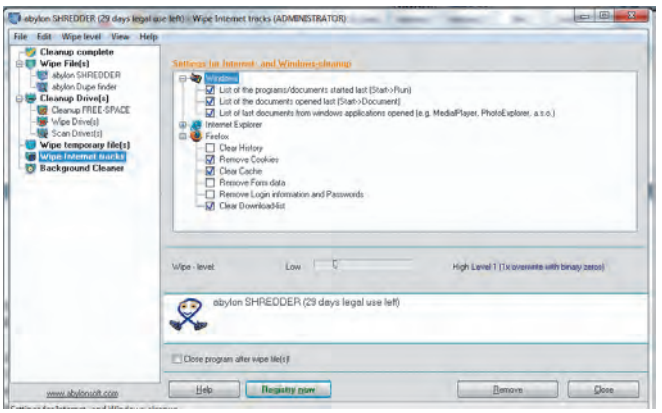
00:10

The first option is the Cleanup Drives option. It allows you to scan the selected drives and clean up freespace, cluster tips, directories and file entries. On hard disks, the file and folder names are stored in a central table. In order to find the file on the hard disk, the memory location (address) stands here. On NTFS systems (most commonly used), the file attributes are stored here. During the normal deletion, only the first character of the file name is changed. Every further information keeps on existing until the next overwriting.

00:15

The next option is the Wipe Drives option. This deletes all the data on the drive. The deletion is irreversible. The drives will become completely empty and a new operating system may have to be loaded.

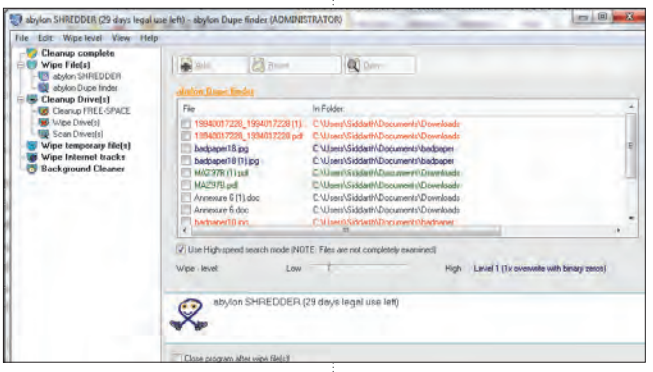
The Scan Drive Option scans the selected drives for files. This functionality is only for examination of the shredding process. It gives you a list of all the files in the drive.



Cleanup internet tracks

00:20

If you ran Complete Cleanup during startup, then this step is quite unnecessary. Since the Complete Cleanup deletes the Temporary Files, the option is only if you wish to do it one step at a time, drive by drive. Also, individual folders can be scanned for temporary files.



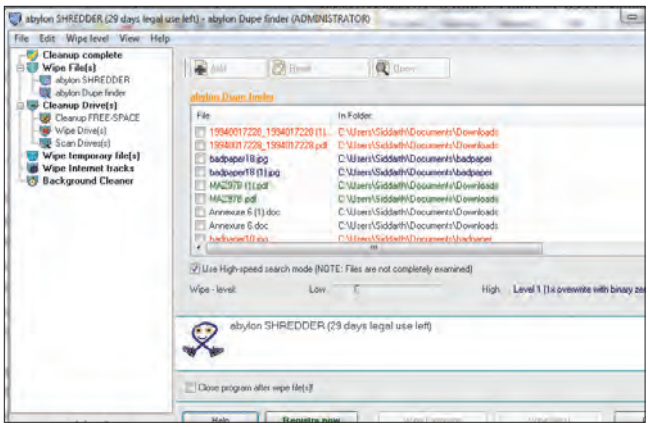
Cleanup drives

Similarly, Cleanup internet tracks deletes all traces of internet usage. The option also deletes Program History (list of recently used files). As with the earlier menu, this allows for some degree of customisation that the Complete Cleanup does not.

00:25

The Background Cleanup Option allows Abylon Shredder to run in the background. At the ewnd of each interval as specified by the user, it cleans up data from the system. If the time is given as `0` minutes, then that specific task is not repeated at intervals. The utility is specifically useful for those surfing on external systems who do not wish to leave tracks of their browsing activity or system usage.

Abylon also has a USB install option in the Settings. Go to `View > Settings > USB Install` to mount the software on to a USB drive.



Abylon Dupe Finder will find files with similar content

Browser Shortcuts (Cheat-sheet)

COMMON BROWSER SHORTCUTS (OPERA, CHROME, FIREFOX, IE, SAFARI)

SHORTCUT	FUNCTION	WHY SHOULD I ?
[Ctrl] + [T]	New Tab	For any of the browsers, instead of using your mouse to click that boring plus sign simply whack the keyboard
[Ctrl] + [W]	Close Tabs	Close the current tab
[Ctrl] + [Shift] + [W]	Close all tabs	When the tab-clutter gets unmanageable, just hold down this shortcut and in seconds your browser window is devoid of tabs.
[Ctrl] + [Shift] + [T]	Restore Last Closed Tab	For those oops moments
[Ctrl] + [N]	New browser window	Because we told you to
[Ctrl] + [F]	Find keyword	Lost that little word? Most browsers will even highlight it for you
[Ctrl] + [C]	Copy	Do you still right click ? Or worse, Highlight> Edit> Copy ?
[Ctrl] + [V]	Paste	Now that we've told you about copy you need to paste it right?
[Ctrl] + [X]	Cut	Yea sometimes you feel like cutting text too.
[Ctrl] + [+]/[-]	Zoom In / Out	The simplest way to enlarge the contents of a web page
[Ctrl] + [0]	Default zoom	When things get too big or too small
[ALT] + [D]	Go to address bar	The quickest way to move on
[Ctrl] + [E]	Go to search bar	Once the browser fires up it's either search or address bar right?
[Ctrl] + [Enter]	Autocomplete a ".com" to an address and go	Who wants to type so much anyway
[Ctrl] + [Shift] + [D]	Add a bookmark	So that you can come back to stuff you like
[Ctrl] + [H]	History	See where you've been quickly
[Ctrl] + [Tab]	Cycle to next tab	It's the quickest way to navigate tabs
[Ctrl] + [Shift] + [TAB]	Cycle to previous tab	Same as above
[F11]	Go full-screen	Because some things need a large screen (like wave)

INTERNET EXPLORER

SHORTCUT	FUNCTION
[Alt] + [Ctrl] + [B]	Toggle menu bar
[Ctrl] + [Shift] + [P]	Open a new InPrivate Browsing window
[Ctrl]+ [K]	Duplicate tab (open current tab in a new tab)
[ALT] + [Enter]	Open the currently typed URL in a new tab
[Ctrl] + [J]	Open Feeds
[Ctrl] + [ALT] + [F4]	Close other tabs
[Ctrl] + [Q]	Toggle Quick Tabs (thumbnail view) on or off
[Ctrl] + [Shift] + [Del]	Delete browsing history

CHROME

SHORTCUT	FUNCTION
[Alt] + [Enter]	Open the currently typed URL in a new tab
[Backspace] / [Alt]+ Left Arrow	Goes to the previous page in your browsing history for the tab.
[Shift] + [Backspace] / [Alt] + Right Arrow	Goes to the next page in your browsing history for the tab
[Alt] + [Home]	Opens your home page in the current window
[Ctrl] + [Shift] + [N]	Opens a new window in incognito mode
[Ctrl] / [Shift] + [F5]	Reloads your current page, ignoring cached content.
[Shift] + [Enter]	Find the previous match for your input in the find bar.
[Ctrl]+[1]..[8]	Switches to the tab at the specified position number on the tab strip.
[Ctrl] + [9]	Switches to the last tab.
[Ctrl] + [Page Up]	Cycle tabs ahead
[CTRL] + [PAGE DOWN]	Cycle tabs behind

SAFARI

SHORTCUT	FUNCTION
[Alt] + [Enter]	Open the currently typed URL in a new tab
[Ctrl] + [Alt] + [B]	Open the bookmarks list
Up Arrow or Down Arrow	Select the next bookmark or folder in a collection
Right Arrow key [?]	Open a folder in a collection
Left Arrow key [?]	Close a folder in a collection

FIREFOX

SHORTCUT	FUNCTION
[Ctrl] + Shift + [Enter]	Autocomplete a .org address for the typed word
[Shift] + [Enter]	Autocomplete a .net address for the typed word
[Alt] + [Enter]	Open the currently typed URL in a new tab
[']	Find keywords only in links on the page
[Shift] + [F3]	Find Previous
[Ctrl] + [J]	Toggle downloads dialog
[Ctrl] + Left Arrow	Move tab left
[Ctrl] + Right Arrow	Move tab right
[Ctrl] + [Shift] + [D]	Bookmark all open tabs in new folder
[F7]	Enable caret browsing and get rid of the mouse completely
[Ctrl]+[1]..[8]	Switches to the tab at the specified position number on the tab strip.
[Ctrl] + [9]	Switches to the last tab.

OPERA

SHORTCUT	FUNCTION
[Alt] + [Enter]	Properties of the currently loaded page
[Ctrl] + [Alt] + [Shift] + [H]	Boss is coming - Hide Opera!
[Ctrl] + Space bar	Go to your home page
[Ctrl] + [Shift] + [V]	Paste clipboard text and go in current or new tab
[Ctrl] + [0]...[9]	Display a speed dial website
[1]	Switch to previous tab on tab bar*
[2]	Switch to next tab on tab bar*
[Alt] + Right arrow	Go to next page in history
[Alt] + Left Arrow	Go to previous page in history
[Shift] + [I]	Toggle loading of images for that little bit of speed boost
[Ctrl] + Click	A shortcut for saving image as
*Check the box marked "Enable single-key shortcuts" in Preferences > Advanced > Shortcuts	



Windows Run Command Cheat Sheet

Quick access to applications and some of the deeply hidden customisation options on Windows systems. The shortcut key for the Run command is Windows + [R]

CONTROL PANEL

COMMAND	FUNCTION
control	Control Panel
control admintools	Administrative tools
control color	Manage appearance
control desktop	Display Properties
control folders	Folder Properties
control fonts	Font Manager
control keyboard	Keyboard properties
control mouse	Mouse properties
control netconnec-tions	Manage network con-nections
control printers	Manage printers and scanners
control schedtasks	Manage scheduled tasks
control user-passwords2	Control usernames and passwords

SESSION MANAGEMENT

COMMAND	FUNCTION
logoff	Log Off Windows
shutdown	Shut Down Windows

INTERNET

COMMAND	FUNCTION
iexplore	Internet Explorer
iexpress	Internet Express Wizard
inetcpl.cpl	Internet Settings
ipconfig	Configure TCP/IP
firewall.cpl	Windows Firewall
wf.msc	Firewall and security
inetwiz	Internet Setup Wizard
ipconfig/all	Display current TCP/IP settings
ipconfig/displaydns	Show DNS cache
ipconfig/flushdns	Clean DNS cache
ipconfig/registerdns	Refreshes connection
ipconfig/showclassid	Shows DHCP class ID
ipconfig/setclassid	Specify DHCP class ID

FILES AND FOLDERS

COMMAND	FUNCTION
migwiz	Migration wizard
comp	Compare files
sigverif	Verify file signatures
c:, e:, d: etc	Open Directory
c:/path	Open path
findfast.cpl	Quick search

TOOLS

COMMAND	FUNCTION
calc	Calculator
clipbrd	Clipboard Viewer
cmd	Command prompt
dvdplay	Play inserted DVDs
excel	MS Excel
explorer	Windows Explorer
freecell	Play card game
frontpg	MS Frontpage
igfxzoom	Zoom utility
magnify	Windows Magnifier
mobsync	MS Synchronisation
moviemk	Windows Movie Maker
mplay32	Basic WMP, not WMP classic
mrt	Malicious software removal tool
mshearts	Play hearts
mspaint	MS Paint
mstsc	Remote desktop
msword	MS Word
notepad	Notepad
osk	On Screen Keyboard
pinball	Play pinball
powerpnt	MS Powerpoint
slui	Windows Activation
snippingtool	Snipping tool for screenshots
soundrecorder	Record sounds
spider	Spider Solitaire
stickynote	Add a sticky note to desktop
taskmgr	Task manager
winmine	Minesweeper
wmplayer	Windows Media Player
write	Wordpad

SYSTEM MANAGEMENT CONTROL PANEL

COMMAND	FUNCTION
appwiz.cpl	Add or Remove Programs
credwiz	Stored usernames and passwords
desk.cpl	Display Properties
devmgmt.msc	Device Manager
directx.cpl	DirectX Control Panel
dpinst	Install Drivers
dpiscaling	Adjust Dots Per Inch scaling
eventvwr.msc	Event Viewer
fonts	Open fonts folder
gpedit.msc	Group Policy editor
hdwwiz.cpl	Add hardware wizard
intl.cpl	Change regional settings
javaws	Java Control Panel
lusrmgr	User and Group manager
mmsys.cpl	Audio management
mscongif	Change various aspects of the system
optional features	Manage optional features
powercfg.cpl	Power management and lid options (where applicable)
regedit	Edit registry
rekeywiz	Encrypt file system
secpol.msc	Security Settings
secpol.msc	Security Settings
sndvol	Adjust sound volume
sysedit	Edit system configuration
timedate.cpl	Date and Time Settings
utilman	Utility manager
wscui.cpl	Security Settings
wuapp	Windows update application

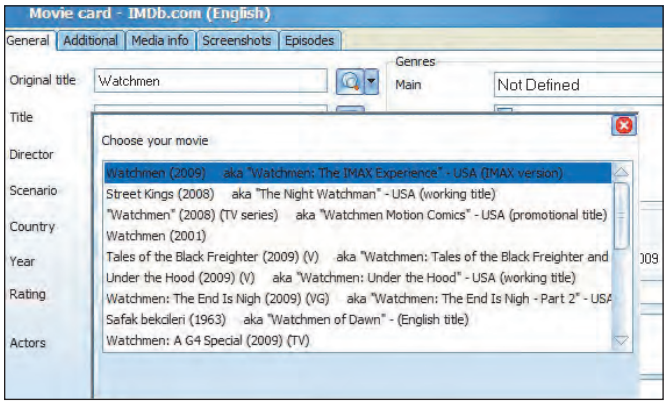
DIAGNOSTICS AND REPAIR

COMMAND	FUNCTION
chkdsk	Check Disk
diskmgmt	Disk Management and partitioning
dcomcnfg	View and manage services
dxdiag	DirectX Troubleshooting
cleanmgr	Disk Cleaning
dfrgui	Defragment drive with GUI
verifier	Verify installed drivers
msdt	MS Support Diagnostic Tool
perfmon	Perfomance monitor
sfc	File checker
msinfo32	System information
sysdm.cpl	System properties
sdclt	Backup
syskey	System security tool
dfrg	Defragment drive
helpctr	Help and Support
sfc/scannow	Start scanning system
sfc/scanonce	Scan at next boot
sfc/scanboot	Scan at every boot
sfc/revert	Return to default settings (of SFC)
sfc/purgecache	Clear chache
tcptest	TCP tester

All My Movies

If your movie collection is a rapidly growing one, it's wise to take some time off and organise it according to Title, and may be even director, actors, script writers, etc.

There is a simple, easy-to-use, sleek and intuitive DVD catalog program called All My Movies by Bolide Software. We've included the software in this month's DVD.

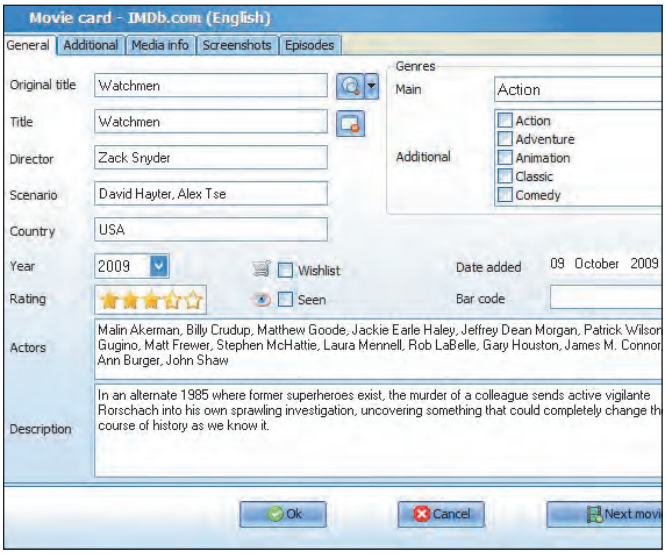


All my movies adds relevant information about your collections as a movie card

Add your movies to the database

The easiest way to add a new movie is to go to `Movie > Add`, from the menu or press `[Insert]`. On the empty movie card, fill in the fields for almost all items that you can think of associating, with a movie in your collection.

Do not get overwhelmed by the amount of details, you don't have to fill everything in. Just enter the name of the movie in 'Original Title' text box and press `[Enter]`. The program will automatically find all the information about it from online movie databases, which is set to IMDb by default. You can change the default database by clicking on the small down arrow adjacent to the Original Title Field and selecting another.

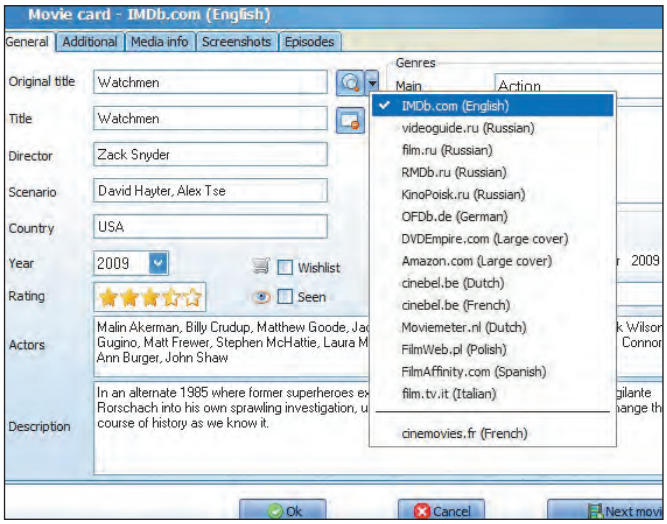


You can easily follow your favourite actors' works from IMDb.com

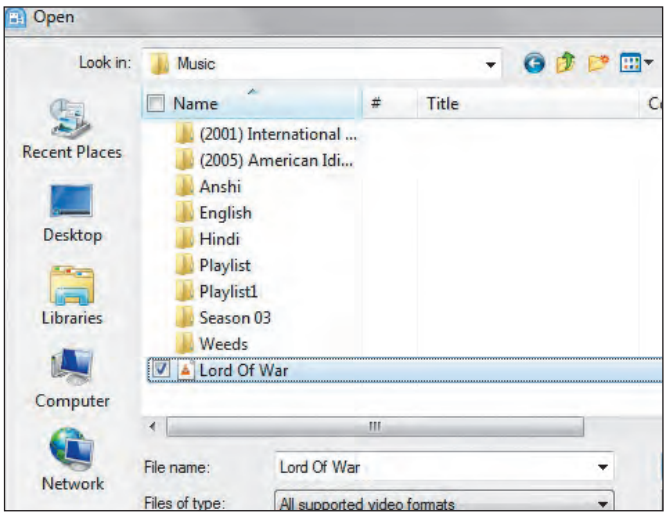
We searched for Watchmen and it brought up all the results with Watchmen in the title. Now, you just have to click on the movie you intend to select/choose and the program will download detailed information about the movie, including the cover image, description and ratings in a few seconds (depending on the speed of your Internet connection). Click OK to add it to your library or click on 'Next Movie' if you want to add more.

You might also have a digitally stored collection of movies. To add them to your library, Just go to `Movie > Add from File`, from the menu. Browse to the location where your movie is stored, select the movie file and click on `Open`. The software will automatically read all the technical information stored with the file and add it the movie card. Not all files have additional details stored with them except probably the codecs used, bitrate, video length and file size. You can also store screenshots of the movie in your collection by going to the Screenshots tab, finding the perfect frame that reminds you of the movie and clicking on 'Save Screenshot'.

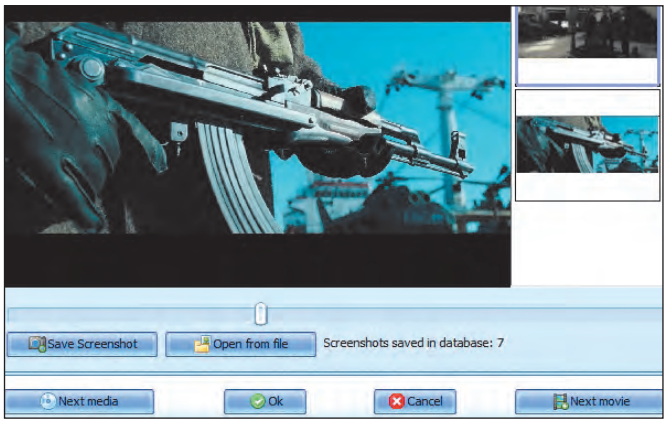
The best part about adding movies this way is that the movie can be started from inside your "All My Movies" collection by



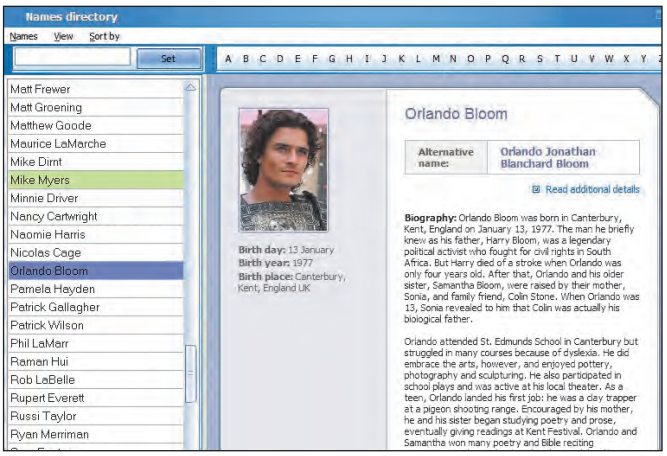
You can select from a wide range of databases



Browsing for your movie is also very easy



You can easily identify your favourite movie by placing a screenshot of your favourite scene



Read all the information you want about your favourite stars from the database

using the button shown in the screenshot.

You can also add DVDs similarly by selecting `Movie > Add DVD` instead.

Your movies

Browsing and searching your collection with All My Movies is easy, fast and fun. It displays the information of your movies in the right pane of the main window, while the left pane contains the list of your movies. You can change the layout of the display by going to `View > HTML` template in the menu and trying out different layouts.

The list of movies on the left pane can also be configured in several ways from the View in Menu bar or by going to `Tools > Preferences` and adding more columns from the 'Display Area' tab. You can also group your movies by Genre, year or movies from the same Director. For this, right-click in the left pane and select the required grouping from the 'Group Movies By' list. This feature is very helpful when deciding what movie to watch. You can simply see the genres available in your movie collection, select one according to your mood and then chose a movie from it. Alternatively, if you can't decide on any movie, just press `[F8]` and the program will suggest you a random movie to watch.

More information

For more information on actors, directors, script writers, etc. just click on their name. You will get the option to either 'Show only movies which feature them' or Search more details about the respective person. You can also access this feature by clicking on `Directories > Names` which consists of a list of all the people from your entire movie collection with their details which includes their photo, personal details, biography and entire Filmography if that's available on the movie database. After you've searched for their details and added them to the Names databases, their photo, birth date and where they belong from will appear when your mouse pointer hovers over their name.

Exporting databases

Probably the best feature of this software is the ability to export your database into special formats so that you can carry your collection around and view it on other computers. We recommend the MS Excel and HTML formats for best compatibility. Go to Tools and select the chosen Export to format.

When you use the Export to HTML option you get to select a layout and then the program exports your entire movie collection in a way ready to be uploaded over the internet and accessed like a web-page by your friends who may wish to see your catalogue and exchange movies. You can even print your movie collection by exporting it to an excel spreadsheet as quick reference for times when you don't have access to your computer.



You can flip though your collection at ease with All My Movies



You can view your database on other systems as well

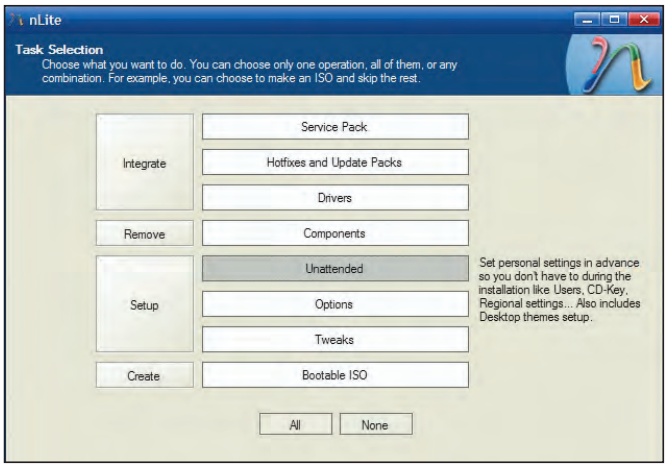
Digit at your service

From antivirus to overclocking, all your questions answered!

Blue screen

I recently purchased a HP DV5-1106 AX laptop that came pre-loaded with Vista Basic. When I try to install Windows XP (SP3 integrated), a blue screen of death occurs and I am not able do so. I think my notebook has a Hitachi SATA drive and there no option of switching the SATA mode to IDE in BIOS. I couldn't find AMD ACHI/RAID 0 drivers anywhere. What should I do to install Windows XP?

Pranav Kumar



nLite allows integrating of SATA controllers drivers into the Windows installer

Without the SATA drivers integrated into your Windows installation disc, there is no way to install Windows to your laptop. Your hard drive won't be detected by the installer. You have to find drivers for the laptop on the driver disc or the manufacturer's site.

DVD problems

I'm using an LG DVD writer. The problem is that Digit DVDs are not readable while other DVDs are readable on my laptop. Other DVDs can even be written perfectly. Please tell me if I have to buy a new writer or not.

Jignesh Lad

There is most likely some kind of compatibility issue with your drive if it's really old. You should try flashing its firmware. Remember, this is a risky task. Usually, the firmware adds support for newer media. We suggest try ing some more Digit DVDs to be sure.

Few Queries

I recently bought a Compaq Notebook with the following configuration.

- AMD Athlon X2 QL65 2.1 GHz
- 3 GB DDR2 800 MHz memory
- ATI Mobility Radeon HD 3450 512 MB graphics card
- 320 GB hard drive with Windows 7 installed

My queries are as follows:

1. Can you suggest a good alternative for MS Office which is free as I just have the trial version of MS Office installed. The features might not be as rich as MS Office 2007, but I want to be able to view and format PowerPoint presentations created on MS Office 2007.
2. Can I play games like FIFA 2010 or Ashes 2009 with the above configuration? If yes, suggest a good gaming pad for my PC within Rs. 1,500.
3. I want to buy a 320 GB portable hard drive. Which is the best buy within a budget of Rs. 3,000?
4. Also suggest a good noise isolating earphone within a budget of Rs. 2,000 for my PMP. I already have a Creative EP630.

Ashutosh

OpenOffice is probably the best free MS Office alternative around. You can download it from http://www.openoffice.org.

FIFA 2010 and *Ashes 09* should just run fine on your configuration. You might have to reduce settings a bit. The Xbox360 wired controller is very popular these days and can be found for around Rs. 1,400 in major cities. Look for a WD My Passport 320 GB. It should be just around Rs. 3,000. The EP630 is already a good noise isolation earphone. There isn't anything a lot better for that price. The Creative EP830 might be one to look at.

Booting issues

I have a Pentium 4 system (2.8 GHz HT processor, 1 GB DDR1 RAM, Intel 865GBF motherboard). I have a single OS - Windows XP (SP3) loaded on it. I have recently purchased an external USB hard drive (Seagate FreeAgent 1 TB), only to increase the storage capacity for my desktop.

However, whenever I switch on my computer with the hard drive connected to the USB port, the screen freezes at the Intel P4 screen and the OS does not boot at all. Without the hard drive connected during startup, the boot is normal.

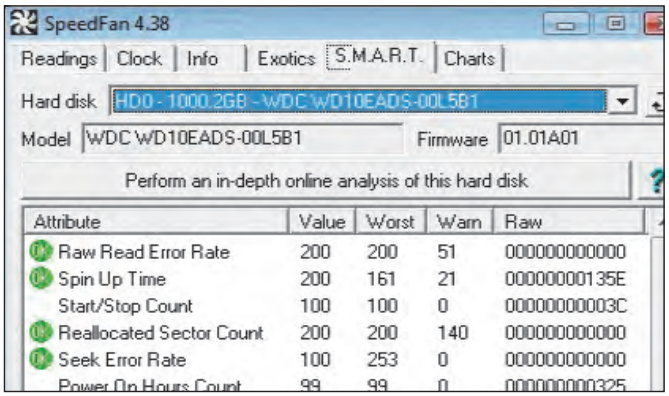
I have disabled the USB booting option in the BIOS setup. Now when I switch on my computer, there are following two scenarios:

1. If I simply restart the PC, then the original problem still persists and the screen freezes at the initial Intel Pentium 4 logo.
2. If I shut down the system (including shutting down the power supply to the external HDD) and then start again, the system proceeds to boot, but there is a delay of almost a minute and the screen goes blank between the loading of the OS and appearance of the XP logon screen.

I have undone the changes done in the BIOS setup and now I have to always physically disconnect the drive before bootup and than reconnect it. I would like my system to boot normally with the external hard drive always connected

No Mac OS X
New Mac OS X 10.6.2 will be blocked from running on Intel's Atom processors

N-gage shutting
Nokia to discontinue the N-gage platform in the upcoming year



Speedfan's inbuilt hard drive diagnosing feature can display health of a hard drive

without any screen freezes or delays. Please guide me with understanding of the problem and help me with a solution to it.

Gaurav

If you have disabled USB booting, that itself should stop the drive from booting. Set your internal drive to boot first. If the external drive still boots, set the next boot drive as your internal hard drive. That should hopefully fix things. If that doesn't help either, maybe it's a bug with the motherboard. Look for a BIOS update and see if there are any bug fixes for it. If yes, then flash the BIOS. Remember that this is a Frisky thing to do and you can end up spoiling the board.

Random flashing

My PC configuration is:

- Intel Core 2 Duo E4600
- Gigabyte S2C 945 GCM mother board
- 2 GB DDR2 RAM
- 160 GB HDD Hitachi
- Samsung DVD writer
- Intex cabinet (450 W SMPS)
- Viewsonic 19-inch TFT with
- D-Sub connector

I have both Windows Vista and XP installed on my system. Whenever I boot in XP, Windows runs fine. But when I boot into Vista, the monitor goes blank randomly for fraction a second but rest of the time, it's fine.

My hard drive activity light flickers without any program running and its operation is noisy too. Also, my operating system keeps failing every now and then.

Is a 450-W power supply enough if I want to add an additional hard drive and a graphics card? Also, suggest a mid-ranged graphics card for my configuration.

Paramjit Singh

Windows normally flashes the display just before it boots into the desktop. It shouldn't cause any serious problems. The hard drive LED flickering could be because of highly fragmented data. Try defragging the drive sometime. If the hard drive is really old, it could be an issue with the drive. Try running a diagnostic tool or use Speedfan's internal drive diagnosing feature. The noise and the system instability suggests there's something wrong with it. Backup your data before things get worse. The 450-W PSU will run an additional hard drive easily. Whether it runs the graphics card depends on the kind of card itself. A basic entry-level card won't be a problem, but a high-end card might. Look for a GeForce 9600GT from Gigabyte, ZOTACor ASUS.

thinkdigit.com Post your comments at http://thinkdigit.com/d/dec09/

DVD Protection

I have an LG Writer (GSA-H20N) that I purchased back in 2006. I have changed its region settings four times so far. Now, the region settings allowed shows up as only one. When I attempt to change that setting, it shows up an error message saying that the region setting cannot be changed. Make sure that you have Administrator privileges.

Now my drive is locked on Region 3 and I'm unable to access any DVD. I haven't played any other DVDS of different regions. It happened accidentally and I only have Region 5 media. Please help me overcome this problem.

Chandrakanth

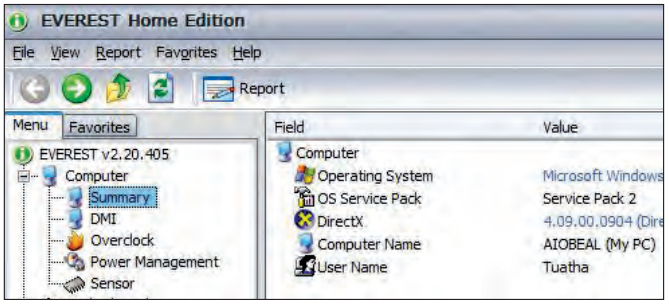
DVD drives have region protection built into them. For the sake of flexibility, a few changes are allowed every now and then. You shouldn't change the region at all. If you've exhausted all the allotted limit, you can't reset the region.

Windows boots very slowly

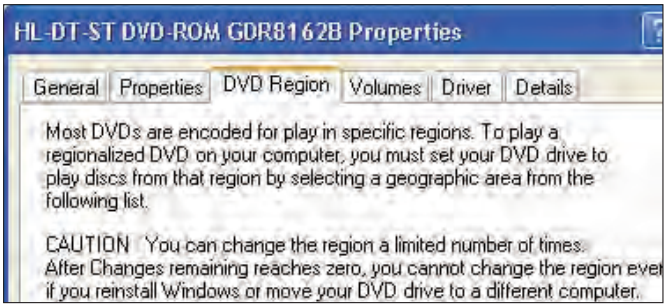
I'm an avid reader of Digit magazine. I have an Intel Dual Core 2 with Windows XP SP2 running on 1.5 GB RAM and 256 of graphics card memory. I also use Kaspersky Internet Security. Even then, my PC takes too much time to start. I have tried everything. I've removed unwanted startup programs, defragmented my drive, but it still takes a lot of time. Please help me. The Windows XP logo stays on screen for long.

Jimeet shah

Try running a thorough disk scan to make sure the hard drive doesn't have any problems. Also, make sure you have all the drivers for the motherboard are installed. If nothing works, a format and then reinstall is worth doing.



Everest showing an in-depth listing of the components of a system



Region settings can only be altered a few times

Desktop Warriors

Which one of these will be worthy for your desktop?

Rohan Naravane
readersletter@thinkdigit.com

We live in an age where the key mantras for electronic devices are clear and simple - thin, light and small. At the centre of this evolution is the desktop PC. Its progress has been one that is long and epic. Consider the processing power of a computer a few decades back, which would occupy an entire room is now available in a small hand-held device.

We saw a trend beginning just a few years back where sales of portable computers such as laptops started surpassing their clunky desk-confined counterparts. Currently, it has been our observation that more and more people want to replace space hogging desktops with ones that can be back-packed to Timbuktoo. But it's still a long way to go till everybody chooses to go for a laptop over a desktop. For one, a desktop still excels at the price-to-performance ratio over a laptop. Second, the option to upgrade its periphery is wider. And its not like desktops occupy a whole lot of space like they used to back in the day; thanks to the advent of LCD monitors and small cabinets with smartly packed internals.

Today, we'll have a look at some of the desktop PCs from a few segments across various price ranges. These were our observations while using the PCs.

Lenovo C300

The C300 looks pretty sleek and occupies only a little more desk-space than a conventional LCD monitor. The screen is adequately large and has a crispy 1600 x 900 resolution. A slot-in DVD writer is fitted at the side; while two USB ports are placed on the other. It comes with a full-fledged keyboard that's pretty convenient to type on and a typical mouse that works well. The C300 is powered by a dual-core Atom processor and a fairly meaty ATi Radeon graphics chip. This combo just about manages to get Windows Vista OS run smoothly. But the combo was evidently not powerful enough to play a 1080p hi-def video smoothly.

Gateway ZX2301

The Gateway ZX2301 looks clunkier than the other all-in-ones but for a reason. It has a



Illustration: Shrikrishna Patkar



Gateway ZX2301

front top and you can choose from various colours when you buy one. There are cooling vents on one side and the top of the cabinet. That, and the rubber grips on corners of one side suggest that you could put it horizontally under a monitor to save some desk space. It came with a set of equally cool-looking 2.1 speaker set that emits quite decent audio quality. It also has a nice round volume pad on a wired remote with a side control for bass. The keyboard was quite soft to type on but it did not have any multimedia keys. The sheer performance advantage that this quad core processor has is staggering.



Dell Inspiron 545s

sub-woofer built at the back. While the sound quality isn't great, it definitely adds more punch to the sound than the speakers on all the all-in-one PC's speakers we've heard. The 18.5-inch screen has a basic 1366x768 pixel resolution. Below that are touch-sensitive buttons that respond to the multi-media interface overlayed on the OS. Below that we have a standard front-loading DVD writer. There's no dedicated button to turn the screen off. It has just one USB port at the side. Above that is a volume roller that also can be pressed to mute audio. The 160 GB hard disk should prove sufficient for storing basic stuff but we feel that they could have fit a larger hard drive in it. The compact keyboard is creaky and isn't very comfortable to type on. On the other hand, the mouse has a good grip and is quite easy to use.

Dell Inspiron 545s

The Inspiron 545s from Dell has a space-saving design. It's quite thin in comparison to typical cabinets, but its height is at-par with others. We got a cool red coloured

Intex (Gold GD-16431 and Platinum PM-16431)

Both Intex desktops, the Gold GD-16431 and the Platinum PM-16431 came in a standard-sized cabinet. The Platinum PM-16431 looks a little cooler than the Gold series thanks to the glossy black-and-silver front bezel. Both sport multimedia keyboards and standard optical mice which are pretty decent and usable. The Platinum series keyboard is slightly thinner. This model also comes with a set of horizontally-standing stereo speakers. They don't have a 3.5 mm headphone port, but rather connect via USB as a separate audio device. It gets detected automatically in Windows, but we couldn't use them with the Ubuntu Linux distribution. Secondly, the USB wire is too short. They provide acceptable sound quality.



Lenovo IdeaCentre A600

Lenovo IdeaCentre A600

The Lenovo IdeaCentre A600 is probably the only Windows-based All-in-one machine we've seen that, although mimicking the iMac's concept, brings out enough innovation to give it a tough fight. It occupies almost the same amount of desk space as a 20-inch iMac. It looks pretty cool in its black shade. A pro over the iMacs we've tested; the A600 sports a 16:9 wide-screen aspect ratio screen that supports a full HD (1920 x 1080 pixel) resolution. It was a pleasure to watch a 1080p video on it. The screen is fairly bright and is crisp. On the right bottom, it has a slot-in DVD writer. There's a higher-end model also available with a Blu-ray drive – a perfect compliment to the high-def screen. Unlike the Mac, it has a host of ports (USB, FireWire) and a card reader on its side for easy access. We were slightly disappointed that the speakers did not belt out as much thump as much the iMac did. Volume was also slightly lacking.

You can't expect great performance out of this mobile processor but the graphics solution – the ATi Mobility Radeon 3650 really helps in performance in games. The Lenovo A600



Intex Gold GF-16431

can be controlled by a variety of wireless input devices.

First up is its keyboard. Aside from being blessed with thin and cool looks, it is pretty nice to type on. In the place of a traditional num-pad, lies probably every HTPC owners dream -- a regular laptop touchpad. It offers fair response and is as easy to manoeuvre the pointer as it would be from any laptop. This makes a lot of sense while using the machine while sitting at a distance. The only issue we faced was the lack of any kind of scrolling mechanism on the touchpad. It brought back painful memories as we started using the scroll-bar after so many years! The mouse is quite comfortable to use as well.

Next up is Lenovo A600's trump-card, the multi-function remote. One, its a full-fledged Media Center remote that works in tandem with Microsoft's pro-media interface by the same name. Second, it also functions as an air-mouse thanks to the built-in accelerometer. Thus the mouse pointer can be manoeuvred without the need for any surface. Its accuracy isn't as great as the Logitech MX Air Mouse, but it is fairly usable, once gotten used to.

Lenovo also bundles a few games that can be played along with the remote; a la Nintendo Wii's Wiimote. Last but not least, – the top and the base of the remote are fitted with a microphone/earpiece like a telephone. The result, it pairs with to the computer as a wireless headset and can be used while talking over VoIP/ Voice chatting like a regular phone. Of course, being

ALL IN ONES			
BRAND	**Gateway**	**Lenovo**	**Lenovo**
Model	ZX2301	C300	IdeaCentre A600
Price (Rupees)	Rs. 29,999	Rs. 32,380	Rs. 63,880
Plus	Built well	Decent performance and price	Good performance
Minus	Too basic	None in particular	Pricey
Grand Total (Out of 100)	28.07	42.64	70.27
Features (Out of 45)	8.55	17.55	22.73
Performance (Out of 55)	19.52	25.09	47.54
FEATURES & SPECIFICATIONS			
Processor Model No / Speed	AMD Athlon 2650e / 1600 MHz	Intel Atom 330 / 1600 MHz	Intel Core 2 Duo T6400 / 2000
RAM (MB) / Type / Speed (MHz)	1 GB / DDR2 / 800	2 GB / DDR2 / 667	2 GB / DDR3 / 1066
Chipset	AMD RS690	Intel i945 GC	Intel GM45
Graphics Chipset	ATi Radeon X1200	ATi Mobility Radeon HD 4530	ATi Mobility Radeon HD 3650
Audio Solution	Realtek ALC262	Realtek ALC662	Realtek ALC272
HDD Size unformatted (GB)	160	320	640
Screen (Inches) / Resolution (Native)	18.5 / 1366 x 768	20.0 / 1600 x 900	21.5 / 1920 x 1080
OS	XP Home	Vista Home Basic	Vista Home Premium
No of USB ports	4	6	6
No of eSATA ports	0	0	0
No of FireWire Ports	0	1	1
Audio connectivity (Coaxial / SPDIF)	N / N	N / N	N / N
Video Connectivity (VGA / DVI / HDMI)	N/A	N/A	N/A
Memory Card Reader (Y/N)	Y	Y	Y
Speakers	Built-in 2.1 speakers	Built-in Stereo	Built-in Stereo
PERFORMANCE			
SYNTHETIC SCORES			
PC Mark 2005 (Overall Marks)	2162	2477	5783
CPU	2316	1925	5060
Memory	2709	2303	4252
Graphics	1059	2626	5434
HDD	6294	6178	7533
SiSoft Sandra 2008			
Memory Bandwidth(GB/s)	3.65	2.48	4.45
3D Mark 2006 Score	306	2357	3142
3D Mark 2006 CPU Score	621	846	1792
REAL WORLD TESTS			
Cinebench R10	562	0	4105
WinRAR File Compression (kB/s)	327	588	997
4 GB Assorted File Transfer test (secs)	251	180	121
Doom (fps) (800x600, medium detail)	14.6	32.3	112
Webcam Quality (out of 10)	5	5.5	6
Speakers (out of 10)	6	4	6.5
Keyboard/Mouse usability (out of 10)	5.5	7	7
100MB DivX file conversion (secs)	231	165	69



Acer join's the All-in-one PC game with their Aspire Z5610 with a 24-inch multi-touch HD screen



MSI's Wind Nettop gets a make-over, with existing specs inside - Intel Atom, 1 GB RAM, 160GB HDD

paired via Bluetooth, the range won't cover your entire house, but a nifty feature to have nonetheless.

Acer (Aspire X1800, Aspire IE3530 and Aspire IE4750)

The Aspire X1800 has a cute little cabinet. It should fit in nicely on any crowded desk. Despite its small size, the X1800 has a plethora of ports. An eSATA port, surprisingly not seen on most other models, is available on this one. The keyboard, other than decent tactility, also offered a nifty volume knob at the corner. The mouse also is quite ergonomic thanks to its slightly arc-shaped design.

The other two Acer models (the Aspire IE3530 and Aspire IE4750) are full-sized cabinets. But unlike the plain-jane looks that other manufacturers chose, Acer's well-built cabinets have a distinct designer top. Also at the top are four USB ports which will be nifty for people who keep their cabinet under the table. Lastly, the power button is placed at the top corner, the design reminding us of the Acer Revo we tested last month.

All three models come with the same set of stereo speakers. Unlike the ones bundled with Intex PCs, Acer's desktop series are powered via USB and with a standard 3.5-mm port to connect to the PC. They give out quite decent audio quality with stereo output.

Zenith (E7500 and E8400)

The offerings from Zenith are also quite simplistic in terms of design. They also come with a simple keyboard and mouse. The desktop comes with a very basic cabinet, very small and doesn't have too not much excitement. It's a standard designed used on many of their other desktops. The system configuration is decent and the performance in the benchmarks better than some of the more expensive products we've received. The keyboard is basic and is good enough for most text related there. It's not meant for gaming or anything of that sort. For Rs. 20,000, you get a speedy Core 2 Duo E7500 with 2 GB of memory, and a 18.5-inch display. If you're just looking for a basic desktop to use at home to browse the internet or a PC to do accounting and some data entry, you'll find very few choices like this. The costliest model we received came with a similar configuration but with an Intel Core 2 Duo E8400 processor.



Acer Aspire IE 4750



Zenith E7500

Apple iMacs

The pioneer in the genre of all-in-one desktops, the latest iMacs are still popular within the circles. Recent additions to the series included bodies being carved out of the same aluminum used to build Macbook Pros. This gives the iMac a sturdy feel and a cool, exquisite look that's hard to miss. They have an internal power adapter, as only a single power cable draws from the back of the machine. The screen, which encases the PC internals, rests suspending on a stand. They are easily titable off the axis to roughly 20 degrees. A slot loading DVD writer (dubbed the SuperDrive) lies at the right. All the ports and the power button have been placed at the bottom at the back. This is somewhat inconvenient, as one has to peek behind the machine to add/remove anything. The thin isolated-design keyboard offers a good typing experience. Due to the removal of

HOW WE TESTED

The desktop PC test had a lot of factors to keep in mind. The tests consisted of the usual desktop application benchmarks using PC Mark 2005 and 3D Mark 2006. Slightly older versions were used so that the really slow net top machines didn't have a major disadvantage. Most of the desktops we were expecting didn't belong to any high-end or gaming desktops lineups. We also used SiSoft Sandra as our synthetic benchmark for the memory benchmark

The proper real world test scores came from Cinebench which any day is one of the best to measure performance of multicore processors. WinRAR also measures CPU and memory performance. Most users would use their desktops for converting media and the 100 MB DivX file conversion test would tell us exactly how good these systems were at it. The hard drives were stressed by transferring large 4 GB of assorted files. For games, the trusty Doom 3 benchmark would still be valid – a great refined one.

Of course, scores and numbers aren't all. We would use the desktops to get an idea of the quality of the keyboard and mice. We were expecting monitors with built-in webcams and so we would take down scores for it as well. The same went with the speakers. Also, we gave points for all the features that the desktops came with – number of expansion slots and USB ports, etc.

For the Apple Macs, we had to use a different set of benchmarks – Geekbench and Cinebench R10.

BEST PERFORMER digit DECEMBER 2009 BEST BUY digit DECEMBER 2009

DESKTOP PC TEST

BRAND	Intex	Intex	Dell	Zenith	Zenith	Acer	Acer	Acer
Model	Gold GD-16431	Platinum PM-16431	Inspiron 545s	E7500	E8400	Aspire X1800	Aspire IE 3530	Aspire IE4750
Price (Rupees)	Rs. 23,500	Rs. 28,500	Rs. 43,334	Rs. 20,000	Rs. 26,000	Rs. 33,499	Rs. 25,749	Rs. 28,749
Plus	Reasonably upgradable	Well built	Good performance	Great value	Great Value, decent performance	Decent value	Decent build	Decent build
Minus	Should be cheaper	Pricey	None in particular	Plain looks	Plain looks	None in particular	Overpriced	Overpriced
Grand Total (Out of 100)	37.26	45.66	69.85	48.01	52.24	56.32	49.90	51.16
Features (Out of 45)	16.16	17.06	25.20	19.94	21.92	22.05	20.25	20.25
Performance (Out of 55)	21.10	28.60	44.65	28.07	30.32	34.27	29.65	30.91
SPECIFICATIONS & FEATURES								
Processor Model No / Speed (MHz)	Intel Pentium E5300 / 2633	Intel Core 2 Duo E7400 / 2800	Intel Core 2 Quad Q8200 / 2333	Intel Core 2 Duo E7500 / 2933	Intel Core 2 Duo E8400 / 3000	Intel Core 2 Quad Q8200 / 2333	Intel Pentium Dual E5300 / 2600	Intel Core 2 Duo E7500 / 2933
RAM (MB) / Type / Speed (MHz)	2 GB / DDR2 / 800	2 GB / DDR2 / 667	4 GB / DDR2 / 800	2 GB / DDR2 / 667	2 GB / DDR2 / 800	3 GB / DDR2 / 800	2 GB / DDR2 / 800	2 GB / DDR2 / 800
Chipset	Intel G31	Intel G31	Intel G33	Intel G31	Intel Q43/Q45	NVIDIA nForce 7100-630i	Intel G31	Intel G31
Graphics Chipset	Intel GMA 3100	Intel GMA 3100	ATI Radeon HD 4350	Intel GMA 3100	Intel GMA 4500	NVIDIA GeForce 7100	Intel GMA 3100	Intel GMA 3100
Audio Solution	Realtek ALC888	Realtek ALC883	Realtek ALC888	Realtek ALC662	Realtek ALC888	Realtek ALC888	Realtek ALC662	Realtek ALC662
HDD Size unformatted (GB)	250	250	500	320	320	640	320	320
Screen (Inches) / Resolution (Native)	19 / 1440 x 900	19 / 1440 x 900	18.5 / 1366 x 768	18.5	18.5	20 / 1600 x 900	20 / 1600 x 900	20 / 1600 x 900
OS	Red Hat Linux	Red Hat Linux	Vista Home Premium	None	None	Vista Home Premium	Vista Home Premium	Vista Home Premium
Upgradeability								
Memory (no of slots)	2	2	4	2	4	2	2	2
HDD (No of SATA Ports)	4	4	4	4	4	2	4	4
No of additional ODD Bays	2	2	2	1	1	1	2	2
PCI Express								
x16	1	1	1	1	1	1	1	1
x4	0	0	0	0	0	0	0	0
x1	0	0	1	1	1	1	1	1
PCI	2	2	2	2	2	0	2	2
No of USB ports	6	6	6	6	6	9	8	8
No of eSATA ports	0	0	0	0	0	1	0	0
No of FireWire Ports	0	0	0	0	0	1	0	0
Audio connectivity (Coaxial / SPDIF)	N / N	N / N	N / N	Y / N	Y / N	N / Y	N / N	N / N
Video Connectivity (VGA / DVI / HDMI)	Y / N / N	Y / N / N	Y / Y / Y	Y / Y / N	Y / Y / N	Y / N / Y	Y / N / N	Y / N / N
Memory Card Reader (Y/N)	N	Y	Y	N	N	Y	N	N
Speakers	-	Stereo set	2.1 (wired remote)	-	-	Stereo set	Stereo set	Stereo set
PERFORMANCE								
Synthetic Scores								
PC Mark 2005 (Overall Marks)	4314	4347	6911	5142	5101	6067	4733	5507
CPU	6194	6809	7455	7421	7612	7396	6531	7357
Memory	4514	4999	5075	5376	5818	4657	4822	4972
Graphics	1286	1164	4938	1717	2169	1865	1560	1698
HDD	6688	6896	5548	6488	6420	6566	6807	6693
SiSoft Sandra 2008								
Memory Bandwidth (GB/s)	3.6	4.43	6.82	5.3	4.67	4	4.46	5.1
3D Mark 2006 Score	230	228	2427	293	904	450	293	264
3D Mark 2006 CPU Score	1648	2334	3396	2457	2573	3373	2169	2464
Real World Tests								
Cinebench R10	2471	5797	8727	6054	6310	8527	5260	6055
WinRAR File Compression (kB/s)	873	1011	1509	1122	1315	791	1001	1053
4 GB Assorted File Transfer test (seconds)	206	180	147	166	154	134	156	167
Doom (fps) (800x600, medium detail)	10.7	14.5	98.3	16.5	18.5	23.1	14.7	14.9
Webcam Quality (out of 10)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Speakers (out of 10)	N/A	5.5	7	N/A	N/A	6.5	6.5	6.5
Keyboard/Mouse usability (out of 10)	6.5	6.5	7	6.5	6.5	7.5	7.5	7.5
100MB DivX file conversion (secs)	78	50	42	48	44	51	58	49



Apple iMac 24-inch

using the keyboard on your lap; as you fear the mouse might be pulled off the table.

The entry-level iMac came with a 20-inch screen (1680 x 1050) and the two above in line came with 24-inch displays; bearing a 1920 x 1200 pixel resolution. All screens portrayed very good clarity and adequate brightness. They are great to use with multimedia applications. We only complain about the glossy nature of the display, due to which the reflections, especially while seeing dark content on screen were little irritating. There are a pair of stereo speakers placed at the iMac's belly. They belt out decent audio quality and volume.

The Mac Mini, touted as the smallest and cheapest Mac, was earlier criticised for having under-powered hardware. Apple has notably made changes that are seen in current editions. It still comes in a petite lunch-box shaped casing which is possibly one of the smallest cabinets we've seen. It's aluminium wrapping gives it solidity and rubbery grip at the base prevents it from slipping. A slot-loading optical drive sits in the front. At the back, we have a good number of USB ports and a FireWire port. On the body, it only has a DisplayPort to connect to a monitor. But thankfully, Apple has provided a Mini DisplayPort to DVI converter with the bundle. The only thing stopping it from being a great HTPC solution is the lack of an HDMI port. A DisplayPort-to-HDMI conversion cable could be the answer to that riddle.

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Considering how portable the Macbook adapters are, the Mac Mini surprisingly has a fairly chunky one. To achieve this tiny footprint, all the internals of the Mini are fitted with laptop components. But still, it packs quite a punch when compared to a similarly-sized Nettop with its Core 2 Duo processor at 2 GHz and an NVIDIA GeForce 9400M GPU.

the numpad, the keyboard's smaller in width, which turns out to be a bit too small while using it on the lap. It is complimented by their "Mighty mouse", that provides fair level of accuracy. It has a tiny trackball like the Blackberry's which provides accurate scrolling. The button on the side is useful to easily switch between windows. Having just one physical clickable button is an issue when you activate the 'right-click' functionality in OS X; the response is a hit-and-miss affair. Another qualm with the mouse is that its wire is simply too short. While Apple may argue that one of the two USB ports on the keyboard can be used to connect it, its not convenient when you are

Apple Mac Pro



So, what do we make of all this?

All the desktops we received were designed for different uses and for different kinds. The all-in-one PC segment's Best Buy winner was the Lenovo C300. It was marginally costlier than the Gateway ZX2301 at Rs. 32,380 but it beats it in many tests. Of course,



Apple's Q4 earning reports USD 1.67 billion profit, Mac sales gone up by 17 percent



Logitech's Notebook kit lets you use a laptop like a desktop with its pivoting stand, wireless keyboard and mouse

APPLE MACS					
MODEL	**Mac Mini**	**iMac 20-inch**	**iMac 24-inch**	**iMac 24-inch**	**Mac Pro**
Price (Rupees)	Rs. 48,200	Rs. 70,200	Rs. 1,04,900	Rs. 1,25,900	Rs. 1,88,900
Plus	Amazing form factor	Superb build	Great components, superb build	Superb display and build	Superb performance and config
Minus	A bit pricey	Expensive	More expensive	Very expensive	Weak GPU, Its price
FEATURES & SPECIFICATIONS					
Processor Model No / Speed	Intel Core 2 Duo P7350 / 2000	Intel Core 2 Duo E8135 / 2660	Intel Core 2 Duo E8335 / 2930	Intel Core 2 Duo E8435 / 3060	Two 2.26 GHz Quad-core Intel Xeon E5520
RAM (MB) / Type / Speed (MHz)	2 GB / DDR3 / 1066	2 GB / DDR3 / 1066	4 GB / DDR3 / 1066	4 GB / DDR3 / 1066	6 GB / DDR3 ECC / 1066
Graphics Chipset	NVIDIA GeForce 9400M	NVIDIA GeForce 9400M	NVIDIA GeForce 9400M	NVIDIA GeForce GT 130	NVIDIA GeForce GT 120
HDD Size unformatted (GB)	320	320	640	1024	640
Screen (Inches) / Resolution (Native)	N/A	20 / 1680 x 1050	24 / 1920 x 1200	24 / 1920 x 1200	N/A
OS	Mac OS X v10.6	Mac OS X v10.6	Mac OS X v10.6	Mac OS X v10.6	Mac OS X v10.6
Specifications & General Features					
No of USB ports	5 + 2 on keyboard	4 + 2 on keyboard	4 + 2 on keyboard	4 + 2 on keyboard	5 + 2 on keyboard
No of FireWire 800 Ports					
Video Connectivity	mini-DVI, Mini DisplayPort	Mini DisplayPort	Mini DisplayPort	Mini DisplayPort	Mini DisplayPort, DVI
Wireless (Wi-Fi / Bluetooth)	Y / Y	Y / Y	Y / Y	Y / Y	Y / Y
PERFORMANCE					
Geekbench (overall)	2813	3688	4007	4178	12073
Cinebench R10	4374	5891	6486	6764	20190
4 GB Assorted File Transfer test (seconds)	167	91	97	85	91
Webcam Quality (out of 10)	N/A	7	7	7	N/A
Speakers (out of 10)	5	7	7	7	5
Keyboard/Mouse usability (out of 10)	7	7	7	7	7.5

if you want something like this, that is much more powerful, with an even better screen, the Lenovo IdeaCentre A600 is your next best option. That on the other hand costs around twice as much.

The Dell Inspiron 545s was one of the costliest desktop PCs. We like the styling and customising options you get when you buy this PC. The desktop topped the charts in both the features and performance. It's a quality product in terms of design but also in performance and wins our best performer award. The quad core processor, 4 GB of memory and a discreet graphics solution – Radeon 4350 make it a good workstation that can have many uses. It can be a workstation for some graphics designer or as an entry level gaming machine. Either way, a larger screen would be nice.



Apple Mac Mini

As far as value for money goes in this section, the Zenith E7500 is our choice for best buy. There are very desktops that you can get for this cheap – Rs. 20,000. Don't expect to do any kind of intensive gaming on it, but for very basic computing needs, it's more processing power than you'll need.

The Macs are in a different group of their own. The fastest Mac we tested is the Mac Pro priced at Rs. 1,88,900. The dual quad core Xeon processors and the 6 GB of DDR3 all add up to the cost. For those who want something a little more affordable, the Mac Mini is a good option. At Rs. 48,200, it's the Best Buy for Macs. It's cute and compact but more importantly, it makes Macs very affordable for everyone to use.

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Contact Sheet

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Lenovo	+91-22-6766 8800	directlenovo@lenovo.com	www.lenovo.com/in
Intex Technologies (India) Ltd	1-800-425 3353	info@intextechnologies.com	www.intextechnologies.com
Zenith Computers Limited	1-800-222 004	info@zenith-india.com	www.zenithpc.com
Apple	1-800-425 0744	indiasales@mac.com	www.apple.co.in

Winner take all

The hardest efforts reap the most rewards. Sound familiar? No? — That's because we made that up ourselves...It's true nonetheless. Here's where all that sweat gets its most deserved shine...

It's December, time to award the sweat and tears put in by manufacturers the world over. As a tribute to our readers and a reward to hard working, innovative maunfacturers, we present our Digit Zero 1 Awards. Since we already give awards (Best Buy, Best Performer etc) in our comparison tests, one might wonder... why? Well, new products keep entering the market and it's just not possible to test every category, every month — which would be the only way we could be sure of the best product in the year.

Which is why Zero 1. The podium belongs only to the best. We therefore, scour the market for products we feel might be better than the products we tested (and awarded) in our comparison tests. These products acquired, subjected to the same rigorous testing procedures and parameters. If they're better, they replace our Best Buys and Best Performers and get a Zero 1 Award. If not, the earlier winner gets the grand prize. Dig in...



Imaging: Anil T

Photo Printers

With everyone so quick to go out and buy a camera these days, there's still the need to print the photos they take. The demand for a cheap, easy-to-use photo printer still exists. This year, we focused mainly on photo printers that could offer users such functionality.



Best Performer
HP Photosmart D5468

One of the most expensive printer this year was the Canon PIXMA iP100 which was close to Rs. 21,000 back then. The best performer however, was the HP Photosmart D5468. It's great feature set was something to die for. A printer priced at Rs. 6,500 that gave decent results and had these features made great sense.

Canon PIXMA iP1980

The Zero 1 goes to the Canon PIXMA iP1980. We tested the new Canon PIXMA iP4760 this month and although it's a good performer, it's way more expensive. Sometimes, people just need something that lets them print photographs. They need not be the best quality but they should be cheap. The Canon PIXMA iP1980 does just that – decent quality but for a fraction of the cost some of the other photo printers.



Camcorders

Camcorders are your best best to preserve memories, and the sheer experience of captured video cannot be compared to a relatively lifeless still image. HD camcorders are hot at the moment, watch out for them.

Best Performer
Sony's XR100-E

Sony's XR100-E is a camcorder we've used extensively and can testify for its greatness. 80 GB of storage space, a resolution of 1080i and very good image stabilisation means your shooting is as professional looking as is possible using a compact camcorder. The price tag of Rs. 39,999 sweetens the deal — great value for the discerning buyer.



Speakers

Speakers are fun. We love them and we think all of us should have a really good set at home. This being a popular product, the market has been flooded with makes using all kinds of gimmicks while not focusing on just producing great quality speakers. It then becomes our job make sure that you only get the best and that's what we did in our comparison test.



5.1 speakers
Altec Lansing VS3251

The 5.1 surround sound hype has attracted companies to make all kinds of audio solutions. All of us would like one but the cost has been a problem. The best buy award for the 5.1 speaker segment goes to the rather looking Altec Lansing VS3251. It wasn't the most powerful speaker set that we heard but it was a nice sounding set. The price of Rs. 5,200 was equally attractive. With all motherboards these days coming with support for 5.1 audio at least, this comparatively small investment converts your everyday desktop computer into a multi-channel entertainment system.





2.1 speakers
UMAX UPB3200

The best buy award winner in the category of 2.1 speakers went to an UMAX pair – UPB 3200. The quality of sound was pretty impressive. It was very close and in many cases, better than speakers that were more than twice its price. By our calculations, it turned out to be the best buy winner.



Best Performer
Logitech Z-5500

The top performer this year was the mighty Logitech Z-5500 5.1 speakers. It is oneof the most powerful speakers, has a good bassy neutral sound. They are perfect even for home theater systems where HTPCs and enthusiast level CD players with digital ouput. We wish the price was a lot lower but then, we can't have everything, can we?

Desktop PCs

Buying desktop PCs are far easier than assembling a PC. There's no hassle or worry of anything going wrong. With ready made PCs, the manufacturer provides support and warranty on it. The industry giants recognize that and which is why we have so many of them in the market selling their PCs.

Zenith E7500

The Acer Aspire NX4440 was a decent system at its time. It had an entry-level processor that ran on a NVIDIA GeForce 8200 board. It has a comparatively low price tag of just Rs. 29,299. This month, we tested the Zenith E7500. In performance, it beats the older Acer Aspire in many areas. It's ridiculous Rs. 20,000 pricing makes it one of the best value systems around that money can buy. The Zenith E7500 becomes the Zero 1 winner of the Desktop PC category.



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Best Performer
Dell Inspiron 545s

In performance desktops, the Dell OptiPlex 960 had a blazing fast Intel Core 2 Quad Q9550, a processor very few systems came with. This month, we tested the Dell Inspiron 545s. It's a fancy looking desktop but one that has more than just beauty on its side. While the OptiPlex 960 has brute processing power hidden under its compact little shell, the Inspiron 545s gives the user style and performance — in games and graphics intensive applications. With a price, that's lower than the OptiPlex, we give it our thumbs up and also the Best Performer award.



Laptops

Laptops — a product category that surely needs no introduction. Laptops are about as diverse a category as one can find — there's truly something for everyone.



Ultra compacts

Dell XPS Studio 1340

Like it's larger sibling the Studio XPS 1340 offers great components under a well designed chassis. It adds compactness as a much desired feature and for the mobile warrior wanting something powerful, this is as good as it gets.

Desktop replacements

Up to Rs. 40,000

Acer Aspire 5738Z

A very nice notebook, a decent configuration and a reasonable price. Suitable for those wanting something basic to replace their desktop. A unanimous Zero 1 Award winner.





Between Rs. 40,001 and Rs. 60,000

Acer Aspire 5738G

A great all rounder and one that offers a good configuration for its price. It's well built, looks neat and has a very decent screen. A well deserved Zero 1 Award winner from Acer.



Corporate Notebooks

HP ProBook 4410S

A suave looking, superbly well built and very well finished notebook, this one oozes style, but it's a minimalistic styling that goes well with the corporate stereotype. Priced at Rs. 40,000 the ProBook 4410S is excellent value.

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High-end Desktop Replacements

Dell Studio XPS 1640

This is one Dell that has it all – a great display, superb performance, rock-solid build quality and Studio-grade looks. It's configurable as well and offers good value for those looking at powerful components.



Best Performer

Sony Vaio VGN-Z48GD

When a notebook is just 20 per cent larger than a netbook and has one of the fastest dual core processors made for notebooks, 6 GB of RAM and two SSDs in RAID 0 there is very little that can best it at the performance level. Just a wonderful product.



Basic Ultra Compacts

Acer Timeline 3810T

A beautiful notebook – excellent finish and good build quality. It's slim and sleek and offers great battery life. The price is pretty excellent too — Rs. 31,999.

Cell Phones

A cellphone is a basic necessity these days, and about as essential to daily urban life as food and water. Choosing one however, is easier said than done, which is where we come in...

Business phones
Nokia E63



Nokia's E63 offers 90 per cent of what the E71 does, minus GPS, a really well-laid out keypad and a metal body. But the price is too good to be true, yet it is — Rs. 11,500 is a superb buy and it wins a Zero 1 Award.

Best Performers
Nokia N96 & Blackberry Curve 8900

The best of the multimedia and business worlds respectively, the Nokia N96 and Blackberry Curve 8900 are two very different beasts but in general, they both excel at what they do. Very good all-round phones, great signal and call quality, build quality and keypads. The N96 is a very capable multimedia device while the Curve 8900 really cuts it for the corporate audience. We haven't tested anything better this year.





Ultra High-end multimedia phones
Nokia N97 & Samsung Omnia HD



The N95 8 GB is an excellent phone, but it's also a model that has been around for well over two years, making it Jurassic in the fast moving world of the smartphone. Its screen, battery life, call quality and feature-set were exemplary for its day, but it faces the heat from the duo of newcomers. The Samsung Omnia HD is a very good phone with the odd quirk. Shockingly the N97 also fell sharply in price, making it comparable to the Omnia HD. Both of these phones offer more features than the now-ageing N95 8 GB, and the Omnia HD actually has a superb capacitive touch screen, making it better for touch use than the N97. However, the N97 has better call and signal quality and a QWERTY keypad. In the end, we're calling it a tie — both the Nokia N97 and the Samsung Omnia HD impressed us equally, they both win a Digit Zero1 Award.







Entry-level smartphones
LG KM 335

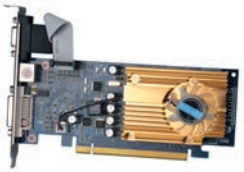
A basic smartphone and one that is available for a lot less than when we tested it, thanks to it being referred to as an "older" model. However, available for around Rs. 5,000, it's a lot of phone for the price and makes a sensible buy for those looking at something other than Nokias and Sony Ericssons.

Graphics cards

Graphics cards are one hotly contested category and this year was no exception. We tested more cards this year, than we have ever done and one thing's for sure — there's no dearth of choice!



Entry-level up to Rs. 5,000
Galaxy GeForce 8400 GS



A half-height card, a price tag of Rs. 1,500 based on current market prices and a set of full height and half height brackets supplied all mean that the Galaxy 8400 GS is unbeatable for sheer value. It'll play Blu-Ray 1080p content easily and you can play the occasional game as well.

Entry-level between Rs. 5,000 to 7,000
ZOTAC GeForce 9600GT Eco



ZOTAC's GeForce 9600GT Eco is a very good option priced at just over Rs. 5,000. The fact that it makes do without any additional power, other than what is available from the PCI Express slot is enough to win many hearts, particularly those who demand performance but don't have a very good power supply. A well deserved Zero 1 Award for ZOTAC.

Mid-range up to Rs. 10,000
Galaxy GTS 250 and Sapphire Radeon HD 4850





Both these cards are equally impressive and there's a hairsbreadth between them, meaning you can choose either and not worry about making a mistake. There's a lot of performance available for this price range and we reckon anyone who can shell out around Rs. 7,000, can have a sweet gaming solution in either one of these winners. The fact that some other cards, based on the same GPU, cost over Rs. 10,000, is testament enough to the value factor.





High-end up to Rs. 17,500
ZOTAC GTX 260² and Palit GTX 260 216 SONIC

For their price, these cards simply deliver the goods. The fact that you can buy a high-end card for under Rs. 14,000 is simply amazing news for most cash-deprived gamers. Definite Zero 1 material.

Best Performer
ZOTAC GTX 295

ZOTACs GTX 295 remains the fastest, most powerful graphics card we tested this year. It's a little unfair to compare it to the ATi Radeon HD 5870-based cards, simply because this is a dual GPU solution and if you're looking for future proofing and something that doesn't consume a lot of power and generate a lot of heat, the Radeon 5870 is right up your alley. However, the fact remains, that the ZOTAC GTX 295 is the fastest thing your money can buy...for the moment. It's priced at Rs. 30,500, but expect that to drop into the high twenties.



High-end-above Rs. 24,500
Sapphire Radeon HD 5870

The shiny newcomer from ATis stables in all its 40nm glory walks away with the trophy. 26,000 bucks is a lot of dough to cough up on a graphics card, but hardcore gamers who demand nothing but the best will not feel let down. DX 11 support, good thermal specifications and great performance all through are its forte. A shiny Zero 1 award to the bold newcomer.



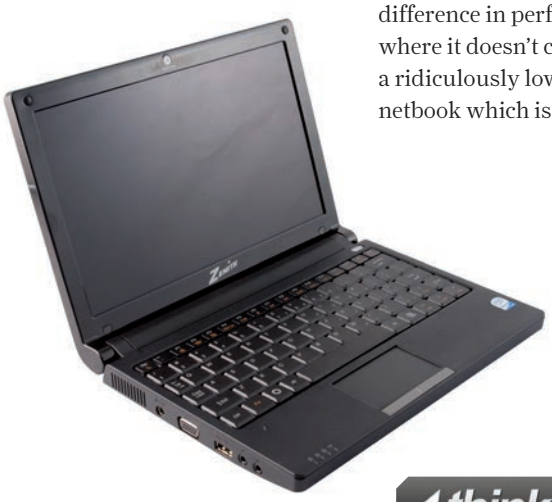
Netbooks

Netbooks have taken over the market. With the promise of low price, excellent battery life and compact size being made, people have received it well. With low price also comes poor quality. We had to test the models in the market to see which was the best model around. They are so popular and there are so many of them, that we tested them two times this past year — once in February and then in September.



Zenith Z-book

The best performer of the year is undoubtedly has been the Zenith Z-book. The Z-book doesn't trail behind the other netbooks by a lot. It uses the Atom N270 processor like the others and even has a similar sized screen as the rest. The difference in performance only shows up in the battery test, where it doesn't come close to the best perormers. Still, for a ridiculously low price of Rs. 16,500, you get a very usable netbook which is why we've given it our Zero 1 award.





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Best Performer
ASUS Eee PC 1005HA

Acer's all new 11.6-inch Aspire One arrives to challenge the ASUS Eee PC 1005HA. We called it in for review and were surprised to find a very good product that's designed well and also built well. We didn't like the older 9-inch Acer Aspire One. That had bad tiny trackpad with oddly positioned buttons along with a really bad keyboard. Looks were the only thing on its side though. This new one has the larger screen, better build and a good elegant design. The performance is a notch up from its older version and a bit up on the last winner — the ASUS EeePC 1005HA in some areas. In general, the ASUS Eee PC 1005HA beats the new Aspire One in the battery test by a big margin. Performance is never going to be a major factor when selecting a netbook, but for those who need the extra oomph, the ASUS EeePC 1005HA is what you need.

ZION™
Infinite Technologies
Dynamic RAM

Digital Cameras

The category of digital cameras has always been exciting and has showed a lot of activity. We've seen them evolve and every year, there's a refresh of models.

Point and Shoot cameras
Samsung ES55

Point and shoot cameras haven't faded away either. We've seen camera sensor resolutions go out of the roof. There are newer features such as face detection which is now part of nearly every camera. We are looking for better quality images from the camera more than anything else. There are a few surprises. The Samsung ES55 was one of the most impressive of the cheaper cameras. We were impressed mainly by its lens quality. The quality at maximum zoom was very good. We were shocked by the rather low price of just Rs. 8,990. This was one of the main reasons of being awarded the Best Buy award.







Best Performer (Point & shoot)
Canon PowerShot SX200 IS

In the case of best performers, we like the idea of ultrazooms. With optical zoom lenses of 10 and 12x, they can shoot images of objects half a mile away. The Canon PowerShot SX200 IS is the perfect example of such a product. A 12 MP camera with 12x zoom that's built so well and is considerably compact at the same time, is good enough reason to give it the best performer award in the point and shoot category.



Best Performer (dSLR)
Canon EOS 50D

The Canon EOS 50D was one of the most impressive DSLRs around. The EOS 50D utilises Canon's new DIGIC 4 processor and features a 15.1-megapixel CMOS sensor. Image quality is top notch, with the Nikon D90 trailing slightly. Aimed at the serious prosumer, the EOS 50D comes highly recommended to the serious hobbyist and budding professional alike.



Digital SLRs
Nikon D60

The Nikon D60 is a solid entry to the world of dSLR cameras. It is built well and has a better feel than the Canon EOS 1000D. Although, the D3000 is intended as a replacement for the ageing D60, the latter still manages to impress, courtesy of some judicious price drops. So despite the D3000s entry, it has the same innards as its predecessor, making the D60 a sweeter option at the reduced price. It's a camera that has served Nikon well, and has taken up the gauntlet for being their best volumes-pusher after the D40.

Storage

There are different storage solutions for different kinds of users. A person sitting at home wanting to store tons of data will need an internal hard drive while someone who needs to carry data from one place to another might opt for an external portable drive or maybe even a flash drive.



Best Performer
WD Velociraptor

The internal hard drives segment has been totally dominated by the fastest hard drive there is — the WD Velociraptor. It's something we've tested a long time back and it's one drive that even challenges the highly anticipated solid state drives. We received the Caviar Black from WD but it doesn't match the performance of the Velociraptor. The WD Velociraptor goes on to win the Best Performer award of this segment. Both the 150 GB and 300 GB versions are equally fast.





Internal Hard drives
WD Caviar Blue 3200AAKS

This 320 GB hard drive is a good performer. Today, prices have dropped a lot and this drive can be bought for less than Rs. 2,500. Back then, it was one of the cheapest drives around but with great performance although higher capacity drives were around for a bit more. The WD3200AAKS model like the larger WD 6400AAKS are legends of sorts.





External hard drives
WD MyPassport Studio WD2000M

Those looking for portable data storage drives have the option of going for a portable external drive or a desktop external drive. The desktop versions are huge and bulky but they are large capacity drives. The portable versions are based on laptop hard drives. Among portable hard drives, we have the Western Digital MyPassport Studio WD2000M that was a good performer but was slightly low on features. A worthy mention — on the 3.5-inch side of things, the Seagate FreeAgent Desk is a basic 1 TB external desktop storage drive. It's a little light on features. It doesn't have eSATA or Firewire. In performance figures, it matches most of the other USB-based drives. Back then, it was one of the cheapest external desktop drives around — almost the same price as an internal drive. Its fancy design and build were an additional bonus. Despite this, the WD MyPassport Studio WD2000M ends up winning.

Flash Drives
Kingston HyperX 8 GB

It's known to many that there are performance flash drives and there are some for high capacity. The Sandisk Ultra Cruzer Titanium 8 GB sells for Rs. 1,449 and makes good sense as compared to our best performer in the flash drive category. It's not as fast as the best performer, but still half the way there. The best performer in the test was the Kingston HyperX 8 GB. The price for the drive was some Rs. 3,633. It's a lot more than the other 8 GB drives. If you just want something that you can quickly dump data to and move on, this is the ultimate drive.

HDTVs

The latest craze and a new test category for us this year. HDTVs are a very interesting product group and one that has captured the market. Falling prices, loads of misleading gyan...see the best, for there is no place for the rest.





Best Performer

LG 42-LG80FR and Sony KDL-70X3500

We even tested the new LG Jazz Theatre and while we really liked the colours there was noticeable banding in some of the video clips. The older 42-LG80FR didn't have this problem and also seemed to have a slightly better contrast ratio. Kudos to LG for a very good quality display at a very good price, this display is available for as little as Rs. 60,000 in lieu of newer, but not necessarily better models available. Even against the newer LED-based LCD TVs, we feel this display holds its own — the LED displays have some backlight response issues that just ruins the fun. The Sony KDL-70X3500 is another matter altogether. 70-inches of on-screen real estate is unheard of for an LCD TV, and there are few plasmas bigger than this, the most common sizes being 55 and 65-inches. That being said the KDL-70X3500 has excellent colour, contrast and brightness levels, very suitable for a home theatre system, but it's also uber expensive, (Rs. 20,00,000), so watch out.



Best Entry-level HDTV

Philips 32PFL5609/98

There was no winner in this category in our test conduced in March, simply because we felt no entry-level HDTV was worth it's price. Manufacturers drop prices and the quality also falls disproportionately. In fact it's only now that we're seeing some better quality entrants in the sub-Rs. 40,000 category. The newcomer from Philips proves a worthy buy indeed. At Rs. 38,000, this 32-inch display is of full-HD resolution, meaning it supports up to 1080p resolutions — very good performance for the price and a deserved Digit Zero 1 Award.



Processors

The powerhouse of any computer has remained one of the most popular product categories for the discerning. The latest crop of CPUs are also very exciting, promising a huge jump in performance over previous-generation architectures.



Best Buy: Rs 12,501 and above

Intel Core i7 920



Intel's Core i7 920 is a renowned chip. Renowned for bringing the price of the Core i7 close to what lesser mortals can afford. Sure, Rs. 14,500 is a lot of dough, but you get a lot of processor for that amount and one that is pretty future proof as well.



Best Buy: Up to Rs. 5,000

AMD Athlon II X2 250

Finally a win for AMD, as their X2 250 proves to be excellent value for money and a much better buy than all the Intel CPUs in that price range. It wins our Zero 1 Award for its blend of affordability and performance.



Best Performer

Intel Core i7 975 Extreme Edition

Extreme indeed. Four, hyperthreaded cores running at 3.33 GHz is enough to send this monster skyrocketing ahead of the competition. No chip has amazed us as much since the Athlon 64 chips of old. It's price is in excess of Rs. 50,000 and it will not be the fastest CPU for much longer, with the new 32nm Intel products due next year. However, the fact that this chip runs cool, at a mere 50 degrees on load is testament to its pedigree and Intel's fabrication quality.

Best Buy: Rs. 5,001 to Rs. 12,500

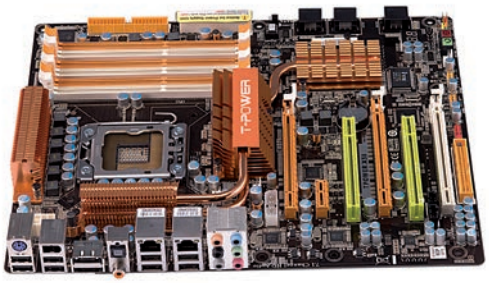
Intel Core i5 750

A newcomer and one we were awaiting with bated breath. The Core i5 was touted to bring the goodness of performance at an affordable price and it has done that. Not only is it faster than the Q8400 by a good bit in terms of performance, it is also faster than Core 2 Quads — a worthy Zero 1 Award winner.



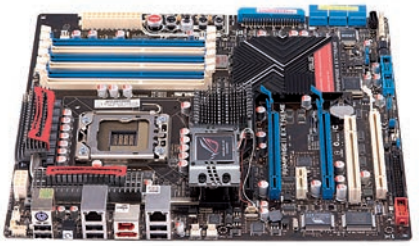
Motherboards

Motherboards are the base of any system. Compromising on a motherboard almost always results in problems of varied sorts. No matter what platform you go for, you should always go in for the best that you can afford. There's something for everyone here.



Intel motherboards
Biostar Tpower X58

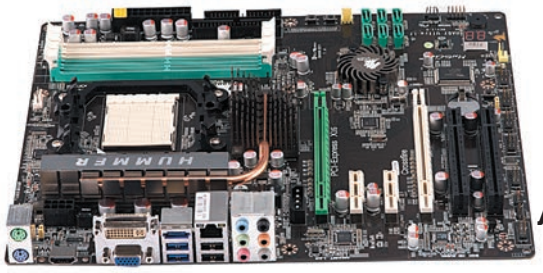
In case of Intel, the fastest platform we have is LGA1366 that plays home for the top of the line Core i7 processors. The benchmarks that we've run also prove that it's the fastest platform for Intel's platform. The only chipset so far is Intel's X58. Even in this short time span, there have been many boards spawned by every motherboard manufacturer there is. Biostar is a brand that has only recently become popular. Sales are improving by the looks of things. Their latest product the Tpower X58 was one of the cheapest X58 motherboards that came to the test. The cheapest one was the MSI X58M which was a micro ATX board. The Biostar Tpower X58 was a little more expensive at Rs. 12,500 but had some more features and it was designed very well.



Best Performer
(Intel platform)
ASUS Rampage 2 Extreme

The top performer of the category for Intel processors was from ASUS. The Rampage II Extreme was one of the best boards around. It belongs to the enthusiast class of boards from ASUS called Republic of Gamers. The board Was priced at Rs. 28,500 a couple of months back.





AMD motherboards
Jetway HA07 Ultra

There is no shortage of boards for the AMD platform either. The Best Buy award goes to the Jetway HA07 Ultra which runs on the AMD 790FX chipset. It's a full fledged board that doesn't look too fancy by the looks of things. We had a few complaints about the quality of the heatsink as well but that's about it. It's got all the features you need and features that match boards close to three times its cost. This enthusiast class board sells for Rs. 5,500. Performance isn't a major problem with motherboards. You find a different of just a couple of per cent between boards using a common chipset.



Best Performer
(AMD platform)
ASUS M4A79T

If you aren't willing to settle with average quality and want the best of all worlds, you have to be willing to go in for the ASUS M4A79T board. It too is based on the AMD 790FX chipset. It's got a excellent layout and most importantly, a very flexible BIOS that's very overclocker friendly.

LCD Monitors

Your entertainment PC just isn't complete without one of these. Widescreens have captured the market and prices have fallen to ridiculously affordable levels. The bandwagon beckons...jump aboard.





19-inch displays
AOC F19

The F19 is a very good buy for two reasons — it's very well priced at Rs. 6,500 and it's a very good performer for the price. We couldn't find anything better at this price point.



Best Performer
NEC MultiSync 2690WUXi

An amazing display and one that we were hard pressed to find flaw with. If any, it would be the slightly deficient contrast for movies, but this is something that is so trivial few will notice it. HPs L2475W came close, but the 2690WUXi was too good for it. The 2690WUXi isn't cheap however, and at Rs. 93,000, you pay pretty penny to obtain one.



22-inch displays
AOC 2230Fm

Try as the LED-backlit V2200 Eco might, it cannot surpass the quality of the AOC 2230Fm. Admitted this is a TN panel, so when we say "quality" it isn't astronomical, but is about as good as one can expect for the price — Rs. 14,000.



24-inch displays
AOC 2434Pw

The AOC 2434Pw is a very good buy for the price of Rs. 14,500. At this price, it's common to see 22-inch monitors, not this full-HD monitor and that too with good performance results.

Portable Media Players

Discrete PMPs still get preference over cell-phones when it comes to discerning users, to whom quality matters.



Entry Level PMPs
Cowon iAudio 7

The Cowon iAudio 7 is a lot of player per cubic inch. Not only is it novel looking, but the novel touch-based controls also work well and the screen, while not good enough for video playback is pretty legible. Sound quality is absolutely amazing for a player of this price range. Obviously, it's not as refined as the Apple iPod Classic and iPod Touch, but neither does it command as hefty a price tag. At Rs. 4,999 for the 4 GB version, and with the 2 GB version costing a good thousand rupees less, this is our unanimous choice for a Zero1 Award.





Mid-range PMP
Apple iPod Nano Video 8 GB

It's a golden day for Apple indeed, when a newer player from their stables is the only one can dethrone the reigning champion. In terms of sound quality, in terms of portability, the look and feel of the product, the iPod Nano Video comes up with all aces. There's hardly anything not to like about this product and now available with the added bit of FM Radio and a video recorder, which by the way isn't that great at all. Yet the feature is available at no extra cost. For Rs. 9,400, you get a lot of PMP for the money.



Best Performer
Apple iPod Classic

The Classic is truly *classic*. A product line that Apple has stubbornly continued despite rivals shifting over to flash-based players, the Classic represents the best of both worlds — storage and performance. With up to a 160 GB of space, it's enough to cart around some 3000-odd lossless audio files or your entire collection of MP3s. The 2.5-inch display is also good enough for movies with great colour, crispness and clarity. However the Classic is a little bulky, but then that's understandable and not really a trade-off for the audiophile. If you're looking for something with absolute sonic authority, the Classic is one of the best, most neutral sounding PMPs we've ever come across. It's wins our Zero 1 Award for its sterling performance.

Premium PMP
Apple iPod Touch 3rd Generation

The iPod Touch is a venerable addition to Apple's lineup and can be considered as a serious all-in-one device. The interface, the additional goodies in terms of applications and games, the large screen that rocks for movies and the superb audio quality all add up to one thing – a class device that will suit anyone who is willing to shell out and who doesn't want something compact, which it's not. It's an ultra capable device and one that literally has something for everyone. The latest generation also features up to 64 GB of storage, though the cheaper 16 and 32 GB variants are also available — truly Zero 1 Award material.



DVD/Blu-ray

A large screen HDTV just isn't complete without a proper HD source. While an HTPC remains our top choice, Blu-ray players are available for convenience seekers. DVD players also lurk in the background. Choose wisely...

Blu-ray Players
Philips BDP 7500



Another wonderful Blu-ray player, even more feature rich than the Sony BDP-S360 with its ability to play videos off a USB-connected device and you can also use this to play music and view photos. It features up to 7.1 channel outputs — rarely seen. Blu-ray video quality was very good, but a bit behind the Sony. However, it handles upsampling very well and DVDs look fantastic. Priced at Rs. 24,990, this beauty features a thick brushed-aluminium chassis and appears solid enough to be used as a weapon should the need arise. A worthy Zero 1 Award winner.

Best Performer
Sony BDP-S360



A head turner with its black body, minimalist buttons and LED display on the front panel. In terms of raw quality for playing Blu-ray videos this one is unbeatable. Colours are not just vibrant but real. Every line, every detail stark and clear — pure visual bliss. We're unbridled in our praise, even with factoring in the basic quality increment offered by the blu-ray format itself; which means this was better than any other Blu-ray player we've seen. Priced at Rs. 24,990, it's surely not cheap, but offers a lot to the hardcore HD aficionado.



DVD players
MoserBaer MBI 6988B



A detachable power cable, swanky curved looks; it also features a USB port and card reader slot. It offers very acceptable quality in terms of performance, although it's not the best, it's definitely worth mentioning that this is one of the most feature rich DVD players around. It's also really affordable, at Rs. 2,350 — awesome bang for your buck. Another worthy Zero 1 Award winner.

Wi-Fi Routers

Free your home from the clutter of cables, go 802.11



Best Performer
Linksys WRT610N

Costly (Rs. 10,000), but mighty impressive, especially its transfer rates. Unlike most routers where performance drops off sharply in zone two and three, this one was rock steady, and was actually faster in zone three than most were in zone one. It's amazingly feature rich as well. Simply the best 802.11n device around.

ADSL Router
DLink 2640T

Although not as fast as we'd like, there's little dispute to the fact that an ADSL router priced at Rs. 3,700 is pretty amazing. Add the fact that it supports the latest WPA 2 security protocol and is built well. There's no wonder it won our Zero 1 Award.



Best Buy Routers up to Rs. 5,000
Linksys WRT120N

A highly affordable wireless n router at Rs. 2,850, the WRT120N offers pretty decent bandwidth for smaller homes with a maximum of 2-3 clients. A sweet deal...



Routers above Rs. 5,000
Linksys WRT160N

This is a superb buy for someone looking at something more powerful and suitable for a larger home higher speed with a greater number of clients. It's also suitable for wireless streaming. Priced at Rs. 5,999, this is a must have for the performance junkie.



Better quality
Canon's PgR technology promises to deliver superior plain paper printing

Fedora 12
It released recently with security improvements and virtualization enhancements

Samsung i8910 Omnia HD

Symbian meets capacitive touch...finally

At first you'll be surprised by the sheer footprint of this phone – it's slim (12.9mm), but as long as Nokia's E90. Then you notice the large (obviously) touch screen and the narrow size bezel and you realise you behold something well designed. The shiny black body that is only relieved by a chrome bezel running around the screen is constructed well, but it lacks the sheer solidness of metal. The large call buttons are placed on either side of the menu button and lie slap-bang amid the chrome trim. The battery cover is a firm fit. The 3.5mm jack is on top of the phone under a rather large flap. The volume switch is located on the left, while there is a tiny screen lock button on the side; the camera button although raised, is not the easiest to use thanks to iffy feedback.

We loved the interface. Symbian on a capacitive touch screen is very rare, and the shortcomings of the touch interface on the Nokia N97 have been fully addressed here. Although Symbian icons are distinct, the widget-heavy, TouchWiz interface will leave some Symbian users nonplussed at first. The screen is responsive and the touch interface is quite fluid, except for the scrolling that still relies on a scroll bar unlike Apples uber-slick, gesture-based scroll. The number keypad works well for anyone used to Symbian – not as good as a hardware keypad, but not bad. The onscreen QWERTY keypad is a nice option, but isn't as usable as the number keypad, although the large screen means well spaced-out keys.

Grunt is provided by an ARM Cortex A8 600 MHz processor and there is a dedicated graphics chip in the form of the PowerVR SGX – thanks to this virtually everything is snappy, but the screen transition effects are pretty sapping and disabling this speeds things up further. The battery, despite its huge rating, drains pretty soon, thanks to the large screen and even with moderate usage needs charging daily.

The camera takes good photos, but a better flash would be welcome. Video quality is also good – a bigger resolution (720p) does help when viewing on a bigger screen. Low-light shooting is not as good. Signal quality is one region where we weren't satisfied, and although it shares an interface with Nokia, the Omnia HD cannot hold a candle to many Nokia phones including the N97, when it comes to signal strength, signal integrity and call clarity. In-call volume is good, but only in a silent environment – it should have been louder. The loudspeaker quality is not as good as we expected from a phone in this price bracket. It should have been louder, since many will use this to watch videos. That's not to say its bad, but there's headroom for improvement. Hands-free clarity is good, and the earphones while decent for music are not superlative and the volume should be have been around 20 per cent more. Browsing is a nice experience, with the ability to resize web pages at a finger swipe.

At a price of Rs. 33,990, the Omnia HD is a very good effort and has a really sweet interface, a huge screen, good camera and decent hardware, but a few significant glitches prevent it from being heartily recommended.



Contact

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Email: sarfaraz.b@samsung.com
Web: www.samsungmobile.com
Price: Rs. 33,990

Specifications

Weight: 148 gm; **Screen:** 3.7-inch, capacitive touch, 360 x 640 pixels; **Camera:** 8 MP, 720p video recording; **Battery:** 1500 mAh; **Details:** Inbuilt Wi-Fi, GPS, 8/16 GB internal storage, microSD expansion

RATINGS

Features	8
Performance	8
Build Quality	8
Value	6
Overall	7.5

Samsung M8910 Pixon 12

Photography part deux

Contact

Samsung India Electronics Pvt Ltd
Phone: +91-11-41511234
Email: sarfaraz.b@samsung.com
Web: www.samsungmobile.com
Price: Rs. 29,990

Specifications

Weight: 120 g, **Screen Size:** 3.1-inches, AMOLED, resistive touch, 400 x 800 pixels, **Battery:** 1000 mAh

RATINGS

Features	7
Performance	7.5
Build Quality	7.5
Value	5
Overall	6

The Samsung M8910 is built well, with a metal battery cover. The screen is pretty crisp, but menu text should have been smaller.

The front keys are well laid out, though not backlit. The camera has a lot of settings available, but the onscreen controls can feel non-responsive, thanks to the resistive-touch display. Auto-focus tracking is possible, and the camera takes pretty good photos, thanks to the powerful Xenon flash. Video shooting also produces good results, albeit only in bright sunlight. Call quality is mediocre, as is signal reception. The headphone connect is sadly a proprietary micro USB jack.

To be honest, the the Java platform is disappointing, we'd have prefered a Symbian one.

The document viewer and the menus are pretty basic, but are at times more intuitive than a Symbian-based device. Those new to phones will not have problems using this device.

However, the biggest drawback of this phone is the touch interface. There's no stylus provided, and the rather non-responsive resistive touch screen will find complaints from users who try and use the touch gestures. At Rs. 29,990, the Pixon 12 faces stiff competition from others; the camera is the only true standout here.



HP L2475W

Pixel-lent!

Targeted at business users, HP's L2475W has an 8-bit, H-IPS panel that boasts of being able to display 100 per cent AdobeRGB colour space. It's built very well — from the solid metal base to the rugged matte finish, and well spaced connects. The stand is height-adjustable up to 10 cm, and landscape mode is also supported. The six USB ports surprised us, as did the presence of an SPDIF audio out.

Calibration was easy and the OSD menu is well laid out. Brightness needs to be turned down, lest your retinas pay the price. The contrast is good, and at times it's hard to believe this was not a PVA panel. Red is saturated and appears almost neon at times, pleasing for movies, but not so for image professionals.



Watching movies on this display absolutely rocks. Games such as Crysis Warhead throw up superb, crisp colours, and highlights and finer details come to life. Image editing professionals and enthusiast PC users alike will appreciate the sterling quality of this display. There is no overdrive bypass for the slight input lag that we noticed.

With virtually all connects, this display is suitable for a very wide audience and will satisfy everyone's visual needs. The only demand it will make though, and a stiff one at that, is on your pocket — at Rs. 43,000 plus tax, it certainly isn't cheap.

Contact

HP India
Email: anurag.gupta@hp.com
Web: www.hp.com
Price: Rs. 43,000 (+tax)

Specifications

Size: 24-inches; **Resolution:** 1920x1200; **Weight:** 9.1 kg; **Connects:** D-Sub, DVI, HDMI, DisplayPort, 6 x USB ports

RATINGS

Features	9
Performance	8.5
Build Quality	8
Value	6
Overall	8

Improved Flash support
Adobe launches the pre-release of Flash Player 10.1 Now available in 64-bit, it allows applications, content and video across devices

Bose
Bose Corporation was formed by Prof. Amar G. Bose with the slogan "Better Sound Through Research" back in 1964

Iolo System Mechanic 9

Wrenches, grease and some tuning

Contact

Aladdin Multimedia Pvt. Ltd.
Phone: +91-98202 33816
Email: rajiv@aladdinindia.com
Web: www.aladdin.co.in
Price: Rs. 29,990

Requirements

Windows 7, Vista, XP, 2000
64/32-bit, 80 MB available space

RATINGS

Features	8
Usability	7.5
Performance	7.5
Value	5
Overall	6.5

Basically a tune up package, System Mechanic works by analysing and fixing faults or potential bottlenecks on your PC. The three PC licence version we got has individual tweaks for various aspects of your PC like the registry cleaning, drive errors, disk and file fragmentation, configuring start-up programs and the obvious freeing up of unnecessarily utilised space. These modules can be run individually, or as a tune up wizard that does everything.

The menu system is fairly intuitive and the options pretty detailed. Among the new features of this version is Tune-up definitions, that makes the program run more smartly by continuously updating itself and working with data collected from other PCs running the software, sort of similar to an antivirus program. EnergyBooster is another tweak that increases performance by disabling unused background programs that consume precious resources. This can also be customised and saved as a profile that can be run later for a performance boost when needed. It also defragments the registry pretty well. Although, this is dependent on the current state of repair required — we found improvements of up to 10 per cent after running the entire suite on our software test machine. Obviously, on older machines with hundreds of software installed on them over time, this difference will be more noticeable.

Priced at Rs. 1,500, System Mechanic 9 is good for beginners, but more advanced users who can tell the difference between defrag and disk cleanup might not really need it.



iPod Touch 64 GB

Similarities are only skin deep

Externally alike, the 32 and 64 GB versions of the Touch are pretty different from previous versions internally – they have the same hardware as the iPhone 3GS. Unlike the earlier Touch that had a 533 MHz ARM CPU, this model has a faster 800 MHz CPU and double the RAM at 256 MB. Voice control is also possible with this Touch, and the microphone and volume controls are located on the headset – similar to the iPhone. We also discovered full support for Bluetooth 2.1 including EDR.

Sound quality remains identical — excellent — and the large screen remains a favourite for movies. Evidently Apple hasn't upgraded the battery, since this would make the device heavier and bulkier, and owing to this battery life is lower than the 2G model, but it's more than the earlier model. Gaming is a better experience and in general, the device is snappier.

It's expensive, more so than many phones out there, but there's a premium experience awaiting you. The only sore spot remains the ever-present iTunes.



Contact

Apple India
Phone : +91-80-4140 9000
Email: indiasales@mac.com
Web: www.apple.com/in
Price: Rs. 24,400

Specifications

Weight: 115 grams; **Display:** 3.5-inches, capacitive-touch, 480x320 pixels; **Features:** Inbuilt Wi-Fi and Bluetooth

RATINGS

Features	8
Usability	8.5
Performance	9
Value	7
Overall	8



3D photography
Fujifilm FinePix REAL 3D W1 claims to be the world's first Point-And-Shoot Digital 3D Camera

More Android
HTC to make Google's new phone expected in 2010



OSX 10.6 Snow Leopard

No hibernating cat this

Contact

Apple India
Phone: +91-80-4140 9000
Email: indiasales@mac.com
Web: www.apple.com/in
Price: Rs. 1800 (single user)

Requirements

Intel-based Mac or Macbook, 8 GB installation space, Apple Tiger or Leopard

RATINGS

Features	7.5
Performance	7.5
Usability	7.5
Value	8
Overall	7.5

Touted as being faster than its predecessor, OS X 10.6 boasts of a native 64-bit design, improved multi-core efficiency is more resource frugal, and has a smaller footprint – 10 GB as opposed to the 16 GB on Leopard. Of course, it loses printer drivers and Power PC binaries in lieu of this, the later meaning 10.6 will run exclusively on Intel hardware. On account of the smaller footprint it installs around 35 per cent faster.

More than 4 GB of memory is addressable as the OS natively runs in 64-bit mode. Apple also dropped in Grand Central Dispatch (GCD hereon) — a system that maintains queues and blocks at an OS level, taking much of the problems associated with a multi-threaded core away from developers, by providing a simple interface where they only need to tag individual clusters of work/tasks. The last significant change is the OpenCL API for utilising the processing power in any GPU later than the GeForce 8600 series.

Working with images has become faster using iPhoto and the HDD subsystem also seems to have sped up. Funnily, Photoshop CS4 shows no increment in performance, while CineBench R 10 gave a 2 per cent higher CPU score.

Expose now has text labels for each window when zoomed-out – useful if there are many images open. The new Stacks allows scrolling in grid view – nifty and a better file viewing experience in general. QuickTime X (10) has a much cleaner interface, for example, move the mouse away and the video loses all borders and buttons and there's also a new system for encoding video and audio clips and even captured screens. The improved Dock now allows dragging files to a relevant application.

The changes seem small, and those under the hood are yet to realise any potential as third party application performance lags. The changes to the interface are cursory too, but they all add up to improved usability. It's not path breaking, but the upgrade from Leopard costs a mere Rs. 1,800, making it something that every Mac user will want to consider.

Canon PIXMA iP4760

A little brighter than we'd like

Canon's brand new offering to customers looking for home photo printers is the PIXMA iP4760. The printer has an elegant design, with a good build quality.

Setting up the cartridges isn't as simple as the USB installation. There are five cartridges in all, and the process is a bit cumbersome. The tray at the top is somewhat misleading since paper can be fed through the tray at the bottom. Fortunately, the manual explains it all.

But being a photo printer, print quality is more important than speed. There isn't much difference in the different modes with time and quality. The prints look good. Our only complaint is the colours looked washed out in the final prints. Text prints suffer the same problem but the clarity in all prints is fine and in the case of text, crisp and rounded.



You only have to shell out Rs. 8,155 for this photo printer. For a home printer, it may seem like a lot, but is actually worth it when you think value for money. The colours could have been a bit more saturated though.

Contact

Canon India Private Ltd.
Phone: 1-800-180-33-66
Email: info@canon.co.in
Web: www.canon.co.in
Price: Rs. 8,155

Specifications

Resolution: 9600x2400 dpi;
Media: A4, envelopes, photo stickers, T-shirt transfers;
Dimensions: 431x296x153 mm,
Weight: 5.7 kg

RATINGS

Features	7
Performance	7
Build quality	7
Value for money	7
Overall	7

New arrivals
Viewsonic launches PC mini series with many digital entertainment features

Competition growing
Orkut now has a new face; although it feels like a copy of Facebook

Cooler Master Silent Pro M600

Silently efficient

One of the key features of this power supply is an 80 PLUS certified one which is an industry rating for PSUs. The Silent Pro PSU has a similar quality as the Corsair HX series of power supplies. It's a modular power supply with the primary power cables sheathed. The others can be plugged as per your needs. This for one means less clutter in your cabinet. The PSU has a large 135-mm fan that blows towards the inside of the cabinet. The PSU is quiet, except for a very faint clicking sound that can be heard if you're right next to the fan. Rubber frames are provided to cut down vibrations transferred from the PSU to the body. All these qualities make it a good candidate for a performance HTPC.

Performance is flawless - it can easily run graphics in SLI and CrossFire configuration. Plugging in SATA power connectors after connecting the SATA cables was slightly difficult. We had to unplug them and force the power cables in place. This happened with two different hard drives we set up for this rig.

The price is decent, although we'd love if it was priced around Rs. 6,000. The power rating of 600W is overkill for someone building a mid-ranged gaming system for approximately Rs. 30,000. For a system that isn't run all day and night, the power efficiency certification might be just a novelty. Still, we feel anyone spending over Rs. 50,000 on a system must buy something of this calibre.

Contact

Cooler Master
Phone: +91-94225 01592
Email: tanmay_l@coolermaster.com
Web: www.coolermaster.com
Price: Rs. 7,000

Specifications

600 W output, modular design, 2 PCIe (8-pin), 4 floppy pins, 9 SATA power
Dimensions: 150 x 86 x 150 mm



RATINGS	
Features	7.5
Performance	8
Build quality	8
Value for money	6.5
Overall	7.5

Photographs: Jiten Gandhi

Philips BDP7500

Feature rich beauty

The player is indeed a beauty. Brushed aluminum body and a mirror finish on front panel will make it look good as a part of any home theater setup. It's got that retro LED display coupled with three touch buttons for eject, play and pause. Power on the player and it's visual appeal goes up a notch (if that's possible) thanks to the soft blue glow it emanates underneath. It has a USB input on the front panel covered with a nice snap on slider so good dust protection there. On the back panel we find a component, composite and HDMI output. There's even support for directly connecting a 7.1 channel speaker system. The HDMI cable supplied with the player was of very high quality.

In terms of performance we found the DVD playback to be top-notch. In terms of Blu-ray quality, the colours appear slightly washed out and the film grain is more pronounced. Nothing that some tweaking with picture settings on the player and TV can't solve. The player's settings interface as well as the data navigation interface is very intuitive. It supports XviD and can play MP3 or picture files off the USB with ease. The upscaling is the best we've seen. However the remote has clackity navigation buttons that are just plain painful to use. Overall a good blu-ray player and an excellent feature rich media player.

The Philips BDP7500 is costlier than Sony's BDP-360, but overall, it's also better. However, it would be easier to recommend if it were priced lower than the curent tag of Rs. 24,990.

Contact

Philips Electronics India Ltd.
Phone: 1860-180-11-11
Email: customercare.India@philips.com
Web: www.india.philips.com
Price: Rs. 24,990

Specifications

Media: DVD-R/-RW, Video CD, USB; **Connectors:** HDMI, Component, Composite, Digital optical/coaxial out, 7.1 Analog connects; 12 bit / 150 MHz Video DAC; **Dimensions:** 245 x 55.7 x 435 mm

RATINGS	
Features	7
Performance	7
Build Quality	6.5
Value	6
Overall	7



Wacom Bamboo Fun

A Wacom, now usable as a trackpad

The Wacom Bamboo Fun isn't meant to be for professionals, but for those who are getting into CG.

This model is pretty compact – the size a regular mouse pad. Installation is simple and build quality is like the Intuos4 we reviewed earlier. The Bamboo Fun lacks a few features including the scroll wheel. It only has four buttons – two for the mouse clicks, one that is customisable and one for turning "Touch" on or off. With it turned on, the Bamboo Fun can be used like an oversized track pad. The drivers allow multi-touch for up to two fingers and gestures for Windows can be allotted as well.

However, the primary use of a device such as this is for 2D artists, who move from paper and pen to a digital tablet with a stylus. It performs well and although the tracking while hovering the stylus isn't accurate, it's good when working on intricate shapes and designs. Using a small pad can be a little painful on the wrist, so we prefer a larger Bamboo.

Also, you don't get any nibs with the Bamboo Fun. Sensitivity is decent, but not comparable to the Intuous4. That's something you realise minutes after using it on a good painting application such as Corel Painter. The missing tilt function is also something that we miss. Priced at Rs. 7,200, it's become more affordable. It's a great utility for every novice. It gets our thumbs-up!



Contact

Wacom
Phone: +91-98103 75390
Email: rajeev.nagar@wacom.co.in
Web: www.wacom.com
Price: Rs. 7,200

Specifications

Pressure levels: 1024 pressure levels; **Dimensions:** 248x176x8.5mm; **Active area:** 147 x 92 mm

RATINGS

Features	6.5
Performance	6.5
Build quality	7.5
Value for money	7
Overall	7

Kodak EasyShare Z915

Easier to forget

Kodak's popularity in the market has been steady mainly because of the low market prices of their products. The Z915 comes with a 10X optical zoom lens with image stabilisation.

The design is plain, the body rock solid, and buttons and dials are made of a cheaper material. The controls for the timer, macro and flash function are positioned on the top of the camera, next to the zoom and shutter release button. The mode selection dial feels loose. The screen is only 2.5 inches and the quality isn't great.

Operation is simple and the on-screen display is basic, but is presented well. The interface is slow, especially when zooming into photos.



Quality is strictly average, and with the ISO settings lowered to 400 or less, it's difficult to get shutter speeds even in well-lit rooms.

The Z915 doesn't impress. Sure, the large zoom lens is nice to have, but it should perform. If the quality issues and interface are tweaked, this could be a decent camera. Still, at just Rs. 10,999, it's around the same cost as some of the ultrazooms from Canon.

Contact

Kodak India
Phone: +91-22-6641 6300
Web site: www.kodak.com
Price: Rs. 10,999

Specifications

Sensor: 10MP 1/2.3-inch CCD; **Screen:** 2.5-inch; **Speed:** 16 to 1/1250 second; **ISO:** 100 to 1600; **Dimensions:** 106.68x73.66x35.56 mm, **Weight:** 221 g

RATINGS

Features	6.5
Performance	6
Build Quality	6
Value	7
Overall	6.5



Next step..
Firefox 3.6 Beta 3 gets released on the internet

Iomega and Sonic
Iomega partners with Sonic solutions enabling consumers to buy as well as rent premium content from home

Kensington keypad and mouse

Good notebook companions

The Kensington keypad calculator and mouse set is a unique little accessory set for the netbook user or even a laptop user. The lack of a numerical pad on the right of the the keyboard can be a problem for those accounting. A mouse is also bundled as part of this kit.

The devices are powered by AAA batteries. The keypad-calculator is built very well – it's sturdy and has nice rubber pads at the corners to stop it from sliding on your table. It can be used as a calculator as well as a numpad. You can switch modes for the device from a number pad to a dedicated calculator that works



even without the USB wireless dongle connected.

The mouse isn't so great in comparison. It's very compact and light – that makes it easy to carry around. Kensington has even provided a carry-pouch with a small pocket in it to carry both the mouse and calculator around. The mouse doesn't perform very well – it's laggy and also doesn't have high resolution. The range in our scenario wasn't more than 3 ft. Still, that's sufficient for use on a laptop and decent for basic desktop applications.

The price for this bundle is a rather expensive Rs. 2,999. We wish the mouse would be a little better in performance. If you're someone who has a lot of numbers to calculate and obviously can't depend on the line of number keys on your keyboard, this is an invaluable resource.

Contact

Milestone Interactive
Phone: +91-22-2820 3319
Email: kensingtonsales@milestoneinteractive.com
Web: in.kensington.com
Price: Rs. 2,999

Specifications

USB wireless dongle, optical mouse and wireless calculator-numerical keypad

RATINGS

Features	7.5
Performance	6
Build quality	6.5
Value for money	5.5
Overall	6.5

Sony VAIO CW

Shiny performance

Sony VAIO VPC-CW16FG belongs to the new CW series of netbooks. This already smart looking notebook is available in five different colours. An Intel P8700 is in the core of the notebook running at 2.53 GHz. The NVIDIA GT 230M with 512MB memory can handle 3D games very well. Installed with 4 GB of DDR3 memory makes this notebook work fast. The touch-pad and keyboard are good and short cut keys are placed intelligently. Screen is bright and vibrant but viewing angles are average. Watching HD content on it is enjoyable and games are fun. Benchmarks showed it can play DOOM3 at 157 fps which is impressive.

The built-in web cam is decent for video conference. Speakers are loud and quality is above average. It features VAIO Gate which adds to its beauty and lets user find programs easily. Wi-Fi communication is fast and dedicated button is provided to turn it on/off. Optical drive is little bit noisy and makes vibrations. Battery life is good considering the dedicated graphic chip. The battery is loose and there is play in the battery compartment when you hold the laptop in your hands.

Overall, it's beautiful, fast and an all round performer. Easy to carry as it weighs only 2.4kg.



Contact

Sony India
Phone: 1800-11-11-88
Email: sonyindia.care@ap.sony.com
Web: www.sony.co.in
Price: Rs. 57,990

Specifications

Processor: Intel Core2 Duo P8700 (2.53 GHz), **Memory:** 4 GB DDR3, **HDD:** 320 GB, **Display**: 14-inch display, **GPU**: NVIDIA GT 230M, **OS:** Windows 7 Home Premium (64-bit)

RATINGS

Features	7
Performance	7
Build Quality	6.5
Value	6
Overall	7



Crazy resolutions
Hasselblad introduces the 50 million pixel H3DII-50MS

Media centre gadgets
Viewsonic VPD500 is a five inch multimedia player and comes with 8 GB onboard memory



WD TV Live

Coming to a network near you

Contact

Western Digital
Phone: +91-93210 29204
Email: amarjeet.singh@wdc.com
Web: www.wdc.com
Price: Rs. 10,500

Specifications

Ports: HDMI, Component, Composite A/V, Ethernet, 2xUSB 2.0; **Dimensions:** 125.5x100x40 mm; **Weight:** 303 g

RATINGS

Features	8.5
Performance	6.5
Build Quality	7
Value	7
Overall	7.5

Western Digital's WD TV Live is an old player with an added network functionality. You can connect it to the display using HDMI, Component or Composite.

WD hasn't fiddled around too much with the interface of the player either. That means it's still as user friendly as it was. We quickly updated the firmware over the internet. The interface is quick but we faced some slowdown after playing some HD clips over the network. This happened pretty often. A reboot fixes everything though.

The video playback performance is great – there is no framing whatsoever on 720p and 1080p content. DTS audio decoding is supported now. YouTube videos can be accessed as well. It even supports Flickr and streaming audio.

All in all, it's still a great HD player. There are a few performance bugs that we hope will be fixed in future firmware upgrades. The price is a little more than the older WD TV but so it's still pretty good value for money.

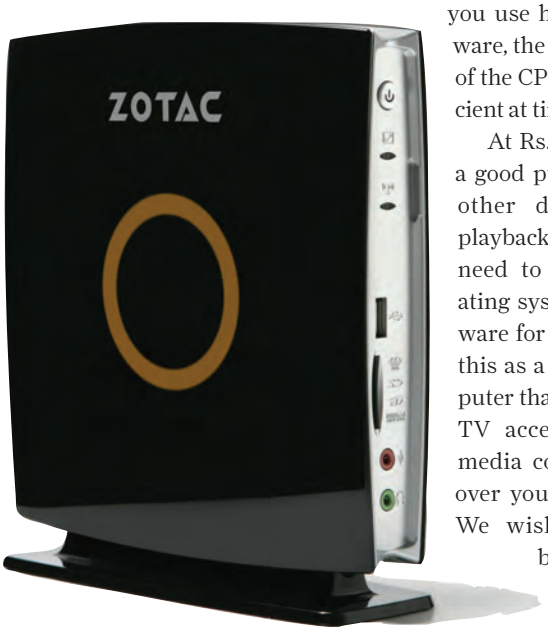
ZOTAC MAG

An ideal HTPC solution

We're testing a lot of LCDs and we are very aware of the lack of media playback devices for them. Building a HTPC can be a little annoying when you're looking for the right chassis and other components. ZOTAC's MAG is their first PC that is perfect for such needs.

The desktop comes with just the PC – it's compact, designed well and looks pretty. It runs an Intel Atom processor with NVIDIA's Ion platform. There's a 160 GB laptop hard drive in it and even WiFi 802.11n connectivity.

The scores from the benchmarks aren't extraordinary either – graphics performance is decent. Doom 3 can run at an average framerate of 27.4 fps on 800 x 600 at medium detail and PCMark05's overall score is 2447. The case gets pretty hot while running intensive applications.



Being an Ion based platform isn't enough to run HD – you need to configure some of your software properly. Once that's done, 1080p is a breeze. That said, it's perfect as a HTPC. If you use heavy HTPC software, the processing power of the CPU itself isn't sufficient at times.

At Rs. 17,500, it will be a good purchase over any other dedicated media playback device. You only need to setup the operating system and the software for it. Ideally, we see this as a full fledged computer that sits next to your TV accessing streaming media content wirelessly over your home network. We wish it came with bundled wireless keyboard and mouse though.

Contact

Vardhman Technologies Pvt. Ltd.
Phone: +91-22-2500 7002
Email: amit@panache.co.in
Web: www.panache.co.in
Price: Rs. 17,500

Configuration

Intel Atom 330 (1.6 GHz), integrated GeForce 9400M, 2 GB DDR2 memory, 160 GB hard drive, eSATA support, memory card reader, Gigabit network. 802.11 b/g/n support

RATINGS

Features	7.5
Performance	7
Build quality	7
Value for money	6.5
Overall	7

No hands!
Project Natal is Microsoft's upcoming hands-free peripheral

Budding studios
Activision Blizzard announces the launch of their new Sledgehammer studio in California

Sony DVP-NS728

Offers you the standard fare



Players seem to be going old school lately. At least that's what it seemed like judging by the displays on the ones we got for review this time. All of them featured one of those retro 7 segment LED displays like the ones VHS players of yesteryear used to sport. Surprisingly this juxtaposition of old and new makes for a classy recipe. But that's the only thing that's retro about this player.

It features an HDMI port, however the playback quality is strictly OK. We looked at scenes from some of our test DVDs as well as XviD clips. There's no skipping or motion blur but the colours on DVD video are less vibrant, with output appearing slightly more grainy than you would like. We used an LG Jazz 42 inch LCD to check upscaling of low quality 700 MB XviD clips to 1080p and it faired quite well. The player's settings interface, as well as the one for browsing USB data is quite cumbersome. It neglects certain expected elements like ease of switching between Disk and USB. To view different types of content you need to go to specific viewing modes like music/video/photo etc. It does however sport some interesting features such as it's own chapter and title browsing menu (with thumbnails), an audio sync buffer of 100 ms to sync mismatching audio with video, and variable playback speeds of .4x to 1.4x.

A player with similar features from other makes would normally be under the Rs. 4,000 mark. We'd be willing to recommend this product if it were a considerably better product than those though.

Contact

Sony India
Phone: 1800-11-11-88
Email: sonyindia.care@ap.sony.com
Web: www.sony.co.in
Price: Rs. 5,290

Specifications

Media: DVD, CD, VCD, SVCD, CD-R, RW; **Formats:** MP3, DivX, AAC, WMA, JPEG; **DAC:** 12-bit, 108 MHz

RATINGS

Features	6
Performance	6
Build quality	6.5
Value for money	6.5
Overall	6.5

Altec Lansing MX6021

Sporting a new face...

Contact

Rashi Peripherals Pvt. Ltd.
Phone: +91-22-6709 0828
Email: response@rptechindia.com
Web: www.alteclansing.com
Price: Rs. 13,999

Specifications

Power: 200W RMS; **Drivers:** 3-inch midrange (x2), 1-inch tweeter (x2), 6.5-inch woofer, **Frequency range:** 40 Hz to 20 kHz

RATINGS

Features	7.5
Performance	7
Build quality	7
Value for money	5
Overall	6.5

Altec Lansing's older MX5021 was one of the best desktop speakers to hit the market. The new MX6021 model has a design seen on some of the newer models. The woofer is huge and one of the largest you'll come across. The satellites have two drivers – one for the mids and then tweeter. These are suspended on a flat plastic surface.

There is no wireless remote, instead a new fancy wired remote control replaces the one used on the MX5021. It uses a spring dial and two buttons to control the bass and treble. Auxiliary input and headphone out ports are present on it. It's not accurate at all and we preferred to adjust the volume from the source itself



The speaker is loud, but that's about it. The bass isn't punchy. The mids and extreme high-end frequencies are well pronounced, but the gap between those ranges isn't clear. The woofer also mixes up bass guitars and voices of certain artists. There is no distortion at high volumes however.

All in all, this is a good performer but nowhere close to the MX5021. The cost should however be much lower. Right now, the model sells for a rather high price tag of Rs. 13,999.

AMD GPU cores
AMD unveils Radeon HD 5970 - their dual-chip graphics card



Powering mobiles
NVIDIA have built next-generation Tegra for Chromium OS

LG Jazz Theatre 42LH60YR

Beautiful stranger



Contact

LG Electronics India Pvt. Ltd.
Phone: 0120-2560900/40
Email: VivekSingh @lgindia.com
Web: www.lgindia.com
Price: Rs. 76,990

Specifications

Size: 42-inches;
Resolution: 1920x1080;
Connects: 1 USB, 3 HDMI 1.3, 2 Component, 1 D-Sub

RATINGS

Features	7.5
Performance	8
Build quality	8
Value for money	6.5
Overall	7.5

LGs Jazz theatre 42LH60YR was reviewed with much anticipation since we had a very good experience with the LG 42LG80FR. The wine-red highlights have given way to a marble finish with blue highlights — not to everyone's taste. It's heavy and very well built. The blue lighting on either side doesn't interfere with watching videos but is very distracting and cannot be turned off. Styling on the front is minimalistic and the remote similar to its predecessor. The on-screen menu system is excellent.

This display has what LG calls a 5.1 speaker system, but quite frankly this is underpowered compared to what we expected, but is still better than other HDTVs. The display has slight backlight bleeding noticeable on the two top corners. This also intrudes in darker scenes in movies. Colour rendition is very good, not the best we've seen, but are lively. The contrast ratio is good, but a little deficient for hardcore aficionados – a PVA panel would be better than an IPS panel in this regard. The 200 Hz panel seems more like marketing hype, since we haven't noticed issues with regular 60 Hz panels, but the feature is there. Connectivity options are good – 3 HDMIs and a USB to go with the regular connects. It's a bit pricey however, at Rs. 76,990 – we reckon you either wait a bit for the price to fall, or skip this.

Philips 42PFL7409/98

Sleek, suave beauty

The 42PFL7409/98 is a change from the other HDTVs we've tested. The bezel is really slim, and as a result the display looks a little smaller than most 42-inch HDTVs — but isn't. The stand is a mixture of thin plastic and solid metal — build quality is good, but not excellent. The remote unit has all possible controls and is solid. Advanced display settings are missing from the menu, but there is an easy setup when the display is used for the first time.



We were surprised at how bright it was – we had to keep brightness down to around 50 per cent and even then our usually dark test room looked like a 40-watt bulb had been switched on. Colours are very good, on par with the LG 42LH60YR. The contrast is what is really excellent though, this display aced the grey-scale intensity test, missing only the first grey square. The issue of backlight bleeding is present, but only visible in dark scenes. Movies are great overall, but we noticed a tearing of the movie frame — turned out to be the "Pixel Precise" feature, and all was OK once we disabled it. Games are also fun thanks to the enhanced contrast ratio. This can make a pretty decent computer monitor, and is a really nice 42-inch HDTV, but we will not recommend it at an astronomical price of Rs. 1,04,990.

Contact

Philips Electronics India Ltd.
Phone: +1860-180-11-11
Email: customercare.India @philips.com
Web: www.india.philips.com
Price: Rs. 1,04,990

Specifications

Size: 42-inches, **Resolution:** 1920x1080; **Contrast ratio (claimed):** 80000:1; **Brightness:** 500 cd/m2

RATINGS

Features	7.5
Build Quality	7.5
Performance	7.5
Value	6
Overall	7

New Nu-Tyx
Thierry Nuttens has announced the release of NuTyX 2009.1, a French desktop-oriented distribution based on Linux



Not here...yet
BlackBerry Bold 9700 is out for sale at AT&T

Sony BDP-S360

Back in black

Right out of the box this player looked like it means business. The black body, minimalist buttons and LED display on the front panel only add to its visual appeal. Some of the things you would notice before firing up this bad boy include a LAN port for accessing BD live content from the internet. The back panel also has a USB port in a sort of recessed hard to reach spot. We initially wrote this off as a design flaw. However we later found out that the USB connect is only for caching BD-Live data and not for data playback, which means you'd hardly ever want to pull it out. It reads data such as MP3 and photos from CDs or DVDs but surprisingly this player does not feature DivX support — quite a downer considering almost every player worth its salt can do that. Still, at heart being a Blu-ray player, it performs that function brilliantly. The quality was fantastic; colours not just vibrant but real. Every line, every detail stark and clear – pure visual bliss. Frankly *Iron Man* never looked so good. We're unbridled in our praise, even with factoring in the basic quality increment offered by the Blu-ray format itself. It plays DVD better than most other standalone DVD players, but not better than the Philips Blu-ray we spoke about earlier. As for interface, it features the familiar Sony interface found on the PSP, PS3 and VAIO P. It's fast and easy to navigate.

At Rs. 19,990, it's a good bit cheaper than the Philips BDP7500, but it's also somewhat lacking in features. If you need a really good Blu-ray player, this is it.



Contact

Sony India
Phone: 1800-11-11-88
Email: sonyindia.care@ap.sony.com
Web: www.sony.co.in
Price: Rs. 19,990

Specifications

Video DAC: 12bit / 148.5MHz;
Decoders: Dolby Digital Plus, Dolby TrueHD, MP3, PCM;
Dimensions: 16.9x2.2x8.1 inches

RATINGS

Features	6
Performance	7.5
Build quality	6.5
Value for money	7
Overall	7

Acer Aspire One 751h

Quite possibly a new star

Contact

Acer India Pvt Ltd.
Phone: +91-80-4070 8700
Web: www.acer.co.in
Price: Rs. 23,500

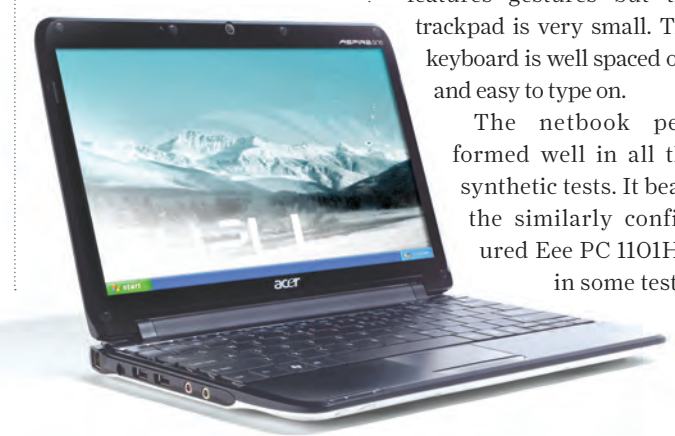
Configuration

Processor: Intel Atom Z520, **Memory:** 1 GB DDR2 RAM, **HDD:** 160 GB, **Display:** 11.6-inch, Windows XP Home

RATINGS

Features	7
Performance	6.5
Build quality	7
Value for money	7
Overall	7

The slim design of the netbook will make it stand out in the crowd. Specifications are like any other netbook in its category. Other than its large screen and the keyboard that's very much like Acer's full fledged laptops, it comes with dedicated buttons to quickly access Bluetooth and Wi-Fi. The multi-touch trackpad features gestures but the trackpad is very small. The keyboard is well spaced out and easy to type on.



The netbook performed well in all the synthetic tests. It beats the similarly configured Eee PC 1101HA in some tests.

Quality of the speakers is satisfactory and the inbuilt web cam is good for video conferencing. Video playback is fine because of the screen resolution but watching movies on any netbook can't be a good idea.

The large battery adds to the bulk of the netbook at the back but it doesn't match the performance of the ASUS Eee PC 1101HA. The battery life difference between this and Eee PC 1101HA is almost one hour.

To sum it all up, this new Aspire One is perfect for those who need something small and stylish.

3G in Chennai
BSNL announces the commercial launch of 3G services in Chennai

More Google!
SPDY, pronounced as "SpeeDY", is Google's experimental protocol under the "Let's make the web faster" initiative.

Canon PIXMA iX7000

Crisp and Fast!



Contact
Canon India Pvt Ltd
Phone: 1800-345-33-66
Email: info@canon.co.in
Web: www.canon.co.in
Price: Rs. 29,995

Specifications
Resolution: 4800x1200 dpi, **Interface:** USB2.0, Ethernet; **Ink:** 6 colour; **Media:** A3+/A3; **Duplex:** Yes, auto

RATINGS

Features	7
Performance	6.5
Build quality	7
Value for money	5.5
Overall	7

The Canon PIXMA iX7000 is a new printer in their A3 line, featuring Canon's Pigment Reaction (PgR) technology, which supposedly lets you get great print quality even on plain paper. This model has a separate tray for photo paper, and features network printing.

The printer is fast, and took only one minute fifty seconds to print the test photograph with the print quality set to high. The printed test image was a little grainy, but had all the finer details intact. There is a clear separation between contrasting colours, and although colours are pretty natural, there are very slight problems with producing reds.

The combi test document, which consists of a mix of text, and colour images, showed decent results with the print quality set to standard.

The text in the document was crisp and even the tiniest of characters was readable — only tiny yellow text seemed to merge with black backgrounds. There is only a two second difference between the normal and fast printing modes, but there was a noticeable difference in colour saturation.

We printed an image to the plain paper with the print quality set to high to test the PgR feature. The quality was impressive. Networking works flawlessly, and fast.

At a price of Rs. 29,995. It's a decent photo printer, but is better suited for documents with both text and images.

Corel Digital Studio 2010

Media editing made easy!

Corel Digital Studio 2010 is a bundle of four video and photo editing applications — DVD Factory, PaintShop Photo, VideoStudio and WinDVD.



It scans the local drives for media on the first launch, and a nifty little application called Corel Digital Studio Gadget lets you launch all applications.

The applications are easy to use, even for novices, and the interfaces are all very similar. PaintShop Photo takes care of all your image touch-up needs.

Video editing and creating DVDs is simple, and WinDVD includes features like Time Stretch which lets you adjust the video length easily. You can watch videos at half or double-speed without distorting the audio. All the common video, audio and picture formats are supported. You need to install an add-on pack to work on Blu-ray and HD DVD content.

You can import media directly from cameras or mobiles, and after editing, upload them to YouTube, Facebook and Flickr, or even email them to a friend.

Our verdict? Its low price makes it a good buy for those who need to do basic editing, and keep their media files organised. It can't be compared to an advanced media editing software.

Contact
Corel Corporation
Phone: +91-99450 12340
Email: sathish.venugopal@corel.com
Web: www.corel.com
Price: Rs. 5,500

Requirements
Processor: 1.83 GHz, **Memory:** 1 GB RAM, 128 MB VGA VRAM, Windows XP SP3 / Vista SP1 / 7

RATINGS

Features	6
Performance	6.5
Ease of use	8.5
Value for money	8
Overall	8

Philips LED TVs
Philips has announced its new LED TV range which offers LED Pro technology

Android on SE
Sony Ericsson announces their first Android phone, the XPERIA X10

Genius G-Shot V1200

12 MP mega-madness!

The newly released Genius G-shot v1200 is a 12 MP camera with a 3x optical zoom. The camera is pretty huge. The camera has support for upto 32 GB of external memory.

The menu and functions are placed at the bottom right corner of the camera. The function button provides controls for choosing different image sizes, smile capture function,portrait mode and the other useful stuff .

We took some indoor shots at the 4000 x 3000 resolution with and without zoom. The image quality of indoor shots without zoom is decent although not very crisp or vibrant. In zoomed shots, distant objects lose detail.

The navigation keys are well placed. The controls are easy to use and the screen is bright. The flash is a little too strong but images do not get washed out.



Data transfer rates to the PC are good. Video test shots taken at 640 x 480 were good but a little noisy. It supports the widescreen resolution 720x400 (16:9). Video recording requires good lighting conditions though, especially with distant objects.

The camera has a decent number of features for anyone interested in getting into photography but definitely not for a professional or a serious enthusiast. At a price of Rs. 10,950, it's pretty expensive.

Contact

KYE System Corp
Phone: +91-11-4158 0611
Email: sales_india@geniusnet.com.tw
Web: www.genius.com
Price: Rs. 10,950

Specifications

Sensor: 12 MP; **Zoom:** 3x optical; **Screen:** 2.7-inch; **Video resolution:** 640 x 480 @ 30fps

RATINGS

Features	6.5
Performance	6.5
Build quality	6
Value for money	6.5
Overall	6.5

Linksys WRT 120N

802.11n on the cheap

Linksys already has a full range of Wi-Fi routers confirming to the 802.11n standard. The only chink in their portfolio was the lack of an entry-level solution. The cheapest Linksys wireless n router we tested was the WRT160N, that was still around the Rs. 6,000 mark. The WRT120N comes into the bottom of their product line, although there is supposed to be a WRT110N, we haven't seen it yet. The WRT120N looks identical to the WRT160N with an all-black finish and the internal-antenna design they now follow.

This is a 2.4 GHz only part and has a maximum theoretical throughput of 150 MBps. Setting it up proved a snap; the familiar Linksys firmware interface is very intuitive. In zone 1, this router did rather well although to be honest there's little to compare, since most routers perform similarly here. In zone 2 it lagged behind its by a fair bit, but was slightly faster than the Belkin Wireless N Router and especially the sequential transfer was a very respectable 2.1 MBps – good. Signal strength in Zone 2 was 34 per cent, which is 2 points behind the WRT160N. Although Linksys recommends the higher models for video streaming, we were able to stream 1080p content seamlessly in zone one, although zone two had a couple of stutters it worked. Zone three was a disaster – this is definitely not for the large household with moderate demands on Wi-Fi, go for one of the costlier models.



The price was the shocker, we'd expected it to be around the Rs. 3,800 mark, but the price is a mere Rs. 2,850 making is very affordable as a basic 802.11n router – something very suitable for a smaller household with no more than 2-3 clients.

Contact

Cisco Systems (India) Pvt. Ltd.
Phone: +91-22-4043 4020
Email: jdabrai@cisco.com
Web: www.linksys.com
Price: Rs. 2,850

Specifications

Standard: 802.11n; **Ports:** 4 x RJ45 LAN (100 MBps); **Security:** WPA, WPA2, WEP

RATINGS

Features	5.5
Performance	5.5
Build quality	7.5
Value for money	7.5
Overall	6.5



Android netbooks
Acer launches D250, the world's first Android netbook

Nokia N97 Mini
Nokia launches the compact version of the N97 in India

Kingmax Super Stick Mini 16 GB

Smaller than its name

Contact

Salora International Pvt Ltd
Phone: +91-98717 77591
Web: www.kingmax.com
Price: Rs. 1,450

Specifications

Capacity: 15 GB;
Bundle: lanyard and pouch

RATINGS

Features	**6**
Performance	**5.5**
Build quality	**6**
Value for money	**8.5**
Overall	**7**

It's not very often that a flash drive garners admiration but the Super Stick Mini was passed around quite a bit. The concept of carrying around up to 16 GB (15 GB formatted actually) of data in so compact a form was tempting. This drive is super compact; in fact it'll fit just about anywhere, and can easily be carried in a wallet inconspicuously. It ships with a small lanyard and a rubberised pouch that will protect it from sharp impacts. There is no cap, and the USB contacts are on the outer body itself, meaning this drive is actually water proof despite, it not having any rubber in its outer frame. Thanks to the extremely small form, it feels sturdy, but the lack of any sort of rubberised protection means you won't want to bend it unnecessarily.

Transfer speeds were good for read operations but very mediocre for writes. Compared to our chart topper the Data Traveler HyperX 8 GB from Kingston, that managed a whopping 13.81 MBps, this one just about managed 2.83 MBps – this would be a poor show normally, but this isn't meant as a high performance drive. Moreover, its performance was better than the PNY Micro Attache 8 GB, which is of a similar form factor, so kudos to the Super Stick Mini.

At a price of Rs. 1,450, it strikes a very sweet deal for a relatively large capacity in such a tiny footprint. Highly recommended, though we wish for an identical-looking, faster, 64 GB one in the near future.



BenQ V2200 Eco

Cutting-edge, but average

We're firm believers in new technology, up to the point that we praise such risk takers. After all, teething issues pervade just about everything in its infancy stages. BenQ's V2200 Eco seems such a product – it's a 21.5-inch display with a resolution of 1920 x 1080 pixels, making it more suitable for movie watchers rather than office work and gamers. Even in Windows, we didn't think much of the contrast and colour; the default Vista background looks rather washed out with very soft looking greens and yellows. It's built well, and the minimalistic styling (matte white finish) is a welcome reprieve from the garish piano finishes, and all that black.

Using DisplayMate, it was evident that the contrast ratio was poor, the grey-scale intensity test proved this. The colour tests showcased problems with the colour gamut for blue and red, the colour gamut for green was somewhat wider, but reds aren't as red as they should be, and you will not notice a great deal of variation in this shade. Viewing angles are also not good, though this is not a fault of the LED-backlighting, rather a fault of the TN panel. What we did notice, much to our disappointment, was the evidence of backlight bleeding – a feature in all entry-level panels these days, but we were expecting more from the LED-backlighting. It's not even suitable for gaming – Crysis looked a little washed out. Priced at Rs. 14,999, there are better LCDs based on the proven CCFL-backlighting that are available for less. The LED revolution is here, but we're still waiting to be impressed.



Contact

BenQ India Pvt. Ltd.
Phone: +91-98717 77591
Email: garima.kundanwar@benq.com
Web: www.benq.co.in
Price: Rs. 14,999

Specifications

Size: 21.5-inches; **Resolution:** 1920x1080; **Connects:** HDMI x 1, D-Sub x 1

RATINGS

Features	**6**
Performance	**5**
Build quality	**6.5**
Value for money	**5.5**
Overall	**5.5**

CUDA power
NVIDIA's new ION graphics processor makes full HD possible on small form factor desktops

Sony's content service
Sony's online service will connect the whole range of its gadgets to downloadable content

CoolerMaster Sentinel Advance

A breath of much needed fresh air

A new gaming mouse is always refreshing and a new one from CM, rare. The Sentinel Advance has surely got the looks. The faux rubberised finish ensures a proper grip while the mouse is nicely contoured but not ambidextrous. The twin laser sensors feature a sensitivity of 5600 dpi and the mouse also has an OLED display, a first, and a large number of programmable buttons with support for configuring macro keys built into the software. There are also five weights of 4.5 grams each to configure the feel and drag of the mouse to suit individual tastes. Sans weights, it feels lighter than a Logitech MX518 by a fair margin.



DPI switching in the form of two adjacent buttons is possible – a must for such a high-sensitivity mouse but because of the Teflon feet being vertically arranged the mouse slides easier when making vertical actions, while there is a slight (but noticeable) amount of drag (not lag!) when moving it horizontally – due to the surface area of the feet. Other than this, tracking is spot on and accurate. There is 64 KB of inbuilt memory for user based profiles and macros scripts. There are LEDs inbuilt, that can be configured in 5 shades and the OLED display can be configured to display your gamer handle or clan name – neat addons that provide some much needed customisation options for hungry gamers.

At a price of Rs. 4,900 this mouse is definitely a decent deal, although it faces competition from the likes of Logitech's G9x and Microsoft's Sidewinder. We feel CM did a good job with the comfort – this one is better contoured than the competition, at least to our hands. Hardcore FPS gamers – you have something worth owing.

Contact

CoolerMaster
Phone: 9422501592
Email: tanmay_l@coolermaster.com
Web: www.in.coolermaster.com
Price: Rs. 4,900

Specifications

Sensitivity: 5600 dpi, Buttons: 8 total; Weights: 5 x 4.5 g; Others: inbuilt OLED display, onfigurable

RATINGS

Features	8
Performance	8
Build quality	7.5
Value for money	6.5
Overall	7.5

AVG Internet Security 9.0

Security made simple

Contact

Milestone Interactive Group
Email: sales@milestoneinteractive.com
Web: www.avg.in
Price: Rs. 1,599

Requirements

CPU: 1.5 GHz or faster; **Memory:** 512 MB; **Space:** 390 MB; **OS:** Windows 2000/XP/Vista/7

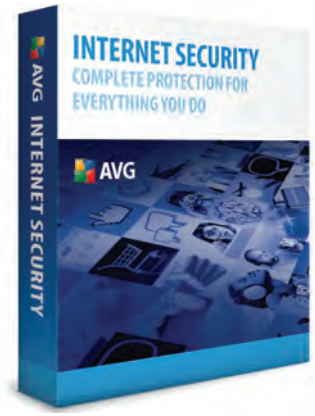
RATINGS

Features	7
Performance	7
Ease of use	7
Value for money	6
Overall	7

AVG's new Internet Security 9 arrives to make life a little simpler for novice computer users who are worried about viruses and worms. Installation of the suite is simple. The set of wizards towards the end ask you what kind of a system and network you're on. The installation ends with a choice of optimization of the scanning.

Little has changed in terms of design. The interface shows a list of all its components. Double clicking on each of them opens the settings window for the component. A separate pane for scanning is also present. Manual scan operations can be started from this menu. Scans can also be scheduled to be run at certain times of the day.

The firewall component is effective. There are rules that can be set specific to programs. While basic settings are displayed in the properties window for every component, a more advanced version is also available.



On a system with 512 MB of memory, it puts some load on it but nothing that slows it down terribly. Memory consumption is around 30 to 35 MB most of the time. Updating of the virus definitions and program are done automatically with little trouble. If you don't have an internet connection, updating can be done using update files.

For those looking for a good, feature-rich security solution for their home PCs, this is one to check out. The pricing for a year's subscription is Rs. 1,599 — a little expensive in our opinion.

Skin displays
University of Pennsylvania have developed LED tattoos, could turn skin into screens

IE Exploits
Hacker posts code that could be used to break into PCs running older versions of Internet Explorer

Netgear WNR 3700

A disappointing flagship



Contact

Netgear Technologies (India) Pvt. Ltd.
Phone: +91-11-26207270
Email: sales@netgear.com
Web: www.netgear.com
Price: Rs. 11,000

Specifications

Standard: 802.11n, **Frequency:** Dual simutaneous, **Band:** 2.4 and 5 GHz, Gigabit LAN, WPA/WPA2, WPS

RATINGS

Features	8
Performance	8
Build quality	7.5
Value for money	6.5
Overall	7.5

The WNR3700 breaks ground for design as far as Netgear goes. It's wall mountable and the router itself, although large, is well designed and built solidly. The top is piano-black and the front has a transparent plastic bezel that has a nice effect on the embedded LEDs underneath. It's clearly meant as a high-end product for larger homes with lots of clients as it features dual-simultaneous bands — both 2.4 GHz and 5 GHz bands. There's a USB port (storage link) as well. The front panel has indicators for everything including both frequency bands along with the de facto LAN port indicators. A Security indicator was missed.

Setting it up was a snap, Netgear's firmware is well laid out and between them and Linksys the better one is purely a matter of preference. This router did well as was expected for a flagship of their "Range Max" series. In fact, in zone one with a sequential transfer speed of 13.16 MBps, this beat our performance king the Linksys WRT610N. Assorted scores were also an all time high. It managed 50 MB in 9 seconds flat i.e. 5.56 MBps. This was not to be consistent however, as the scores dipped below 1 MBps in zone two and below 0.5 MBps in zone three.

Therefore the WRT610N remains the king at longer distances and with obstructions meaning its antenna and chipset are better and more suited to intensive tasks. Streaming 1080p content was a snap in zone one, a little annoying with the occasional lag in zone two and a sporadic affair in zone three. Priced at Rs. 11,000, the WNR3700 isn't the best router around, but it's the costliest one we've tested to date, making it languish close to the bottom of our recommendations list.

Circle Cosmo CC742

Better than some in its class

Cabinets can either be functional or flashy. This one belongs to the functional enclosure-of-important-innards category, so you can forget about any eliciting any envious stares. We were impressed by two features in this cabinet: One, that it has an eSATA and four USB ports on the front panel along with the regular microphone and audio jacks. The other impressive feature is an HD audio optional connect for the front audio besides the regular AC97 support. Other than that the cabinet is pretty standard in all aspects. It has two 80 mm fans; one at the back and one behind the front panel for circulating air from side vents. The front panel is made of plastic and comes off with a snap on mechanism – very handy for fitting drives in the three front 5.25 inch slots. Button quality for the reset and power buttons is strictly OK.



As for build quality the metal is a little too pliable than one would ideally want and the cabinet has no rubber stoppers at the base. The side panel can be conveniently slided of with the help of thumb screws, to expose internals free of sharp edges. The power supply lets out a sheathed mother board power connect along with two Molex and two SATA connects. The lack of a 6 pin connect is quite a downer considering it's used by most graphics cards of today. Go for it only if you're building a PC on a tight budget.

Contact

Circle
Phone: +91-22-6671 1234
Email: completecare@entercircle.com
Web: www.entercircle.com
Price: Rs. 1,850

Specifications

Form factor: Full ATX; **Fans:** 2 x 80 mm; **Dimensions:** 400 x 182 x 421 mm, **Weight:** 5.8 kg

RATINGS

Features	6
Performance	NA
Build quality	5.5
Value for money	6.5
Overall	6

127 **Spirit of enterprising**
We took a close look at three small businesses to understand how they function and what it takes to run a small business

130 **Connect with .NET**
Learn how to create your own .NET web site using Microsoft Visual Studio 2010

Campaigning online

You started your business, and it's been tough, but you've gotten through the rough patches. Now what? Time to grow your business like never before, and the good news is, it only costs you some time and very little money

Siddarth Raman
readersletters@thinkdigit.com

Not everyone can afford large marketing budgets, and with sites like Facebook and Twitter, which have millions of registered users (potential clients), thankfully, you don't really need deep pockets anymore. Curious? Think about it, you probably are already registered at some of these online hubs, and without even trying have hundreds of friends. Imagine the possibilities if you actually put some effort into marketing your small company the same way...

The most obvious method of internet advertising came about when this little invention called email made it big. Before spam became the biggest plague on Earth, and as a result, spam filters got popular, you could get away with mailing thousands (or millions) of addresses with "special offers" on your products or services. Today, it's likely to cause you more harm than good. Of course, email marketing still produces the best results (often 150 per cent better than other media), but this is now done with care, and only to opt-in subscribers.

Today, you have a number of other options also available to you, and we're going to walk you through some of them, analyse the costs involved, and help you understand how effectively you can measure RoI (Return on Investments).

Display advertising

For those of you who are not fluent with online advertising jargon, display ads are basically any sort of visual advertisement. These are the most expensive kind, and you're charged in various ways, depending on the site you advertise on. For example, some sites may charge you based on a CPC



Imaging: Chaitanya Surpur

value. That's Cost Per Click, or basically, you pay a small amount for each person who clicks on your ad. Another form of advertising that's offered up by sites with large traffic is CPM, or Cost Per Mille (thousand). Since these large sites usually have millions of visitors, you're charged for impressions — or basically how many times your ad is displayed.

Now this is expensive — consider that the average cost of advertising on Yahoo! is $6,000 for 300,000 impressions in a month. That is a CPM of $20 per 1000 impressions, or Re. 1 per display.

Other sites, such as Facebook, offer more dedicated, user-focused advertising. Go to www.facebook.com/ads/create, and you will find that the minimum CPM rate is $0.02, but you also get an estimate of how many people you can expect to reach. Advertising on Facebook is a bidding process, and you enter the details of your target audience, and depending on the popularity of the advertising space, you pay accordingly. This is most definitely something you should check out, because at last count, a little over 8.2 million Indians are registered there.

Search

Search engine marketing, or SEM, is a form of internet marketing that seeks to promote web sites by increasing their visibility in search engine results through the use of contextual advertising and paid inclusion.

Ad programs such as Google Adwords allow marketers to bid on terms. Once you bid and buy these phrases, your ads will appear on sites that have Google AdSense enabled. This is the bread and butter of companies like Google, and is their biggest source of revenue. The CPM per keyword is variable, and often adjusted by Google itself based on tools. Terms such as "search engine optimization" could cost you over $20.

Search engine optimisation, on the other hand, is passive marketing. It focuses on improving the quality and



Search Engine Optimisation involves a lot of analysis

content of your web site in order to ensure that it is highly ranked on a search results page when people search for certain keywords. SEO works by improving the framework and infrastructure of your web site, and is no simple task. For one, you need to know how search engines index web sites. People are often mistaken about the nature of SEO, with most believing that repeating a chosen keyword over and over again on your web site will help it rank higher. The credibility to your content depends on the number of visitors, the number of sites linking to you, the number of competitors with similar content, originality and a long list of other factors. SEO is often so complex that companies leave the job to professionals, choosing to pay experts, instead of learning how to do so. What makes SEO so important is that results are quantifiable, and easily verified — just check your search engine rank.

One thing to remember is that none of the methods listed earlier can work alone. A recent article by SearchEngineLand mentioned a study which reports that of all the people that react to display ads, 31 per cent of those people directly click on ads, while 27 per cent use search engines to look for a brand, offer, or product. It's obvious you need both search engine marketing / optimisation as well as display advertising.

The social media collage

Social Media Marketing, by itself is a vast field, but the major advantages are that it's free, and not enough companies have realised its potential, just yet. We don't think we need to stress how important it is to grab the advantage of being a first-mover in your domain. Companies such as Dell and Gillette have run exhaustive campaigns, all of which showed very positive results. In India, the Vodafone ZooZoo campaign hit Facebook even before it hit television. Before you get all gung-ho and run out to start marketing yourself, remember, there are a few prerequisites.

Campaigning media

Let's look at all the mediums available to a company or brand interested in establishing a brand image online.

1. Display advertising
a. Banner ads
b. Video ads
2. Search
a. Search engine optimisation
b. Search engine marketing
3. Email marketing
4. Social media
a. Social networking sites
b. Multimedia sharing sites
c. Information sharing
d. Corporate blogging / blog marketing
e. Microblogging
f. Social bookmarking

Then, let's look at the few prerequisites any good marketing campaign should have. Considering the internet is an open forum, care must be taken not to seem too irritating. Other factors that need to be considered

- Cost
- Outreach
- Interaction with users
- Interest generated in campaign / market buzz

A web site

We're stating the obvious, and we know that, but we cannot stress enough the importance of having a site that acts as a link-back to your campaign.

A blog

A blog is your mouthpiece to the public. A web site is good for corporate information, a contact us page, sales figures and other publicity, but a blog is personal, and interactive. Your blog should be indicative of the persona you wish your brand or company to project.

Marketing 101

As of today, Orkut is still the leading social networking site in India with the maximum number of Indians registered on it. However, Facebook seems to rank higher as an option for marketers, and it's growing really fast.

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IAC Awards 2009
Kalamazoo won the best agency, and Design Lab won the award for the best e-mail campaign at the recent Internet Advertising Competition awards 2009

No ads on Twitter
Advertising is still not a part of the road-map of Twitter, although they may show up down the line

Socialising

Popular campaigns, such as Vodafone's ZooZoos, had close to 3,20,000 fans. Facebook's fan pages allow you to embed videos, pictures, update information, and more. Apart from a web site, or a blog, a wholly social media driven campaign can be launched from Facebook itself.

Most social networking sites also have groups and forums. This allows for active user engagement with questions, answers, discussions on topics of interest, and more.

LinkedIn (www.LinkedIn.com) is also a good place to start. It focuses on professional networking, and as with other sites, allows you to expand your network and create groups. It also allows you to create an official company page, and this is something you should certainly do.

If you're looking to promote your company's image, LinkedIn is the place you should start. However, if you're trying to increase the popularity of your products and/or services, you will be better off looking at sites such as Facebook first. However, you should still do both, it's just that you have to get your priorities right, base don what it is you're trying to achieve for yourself.

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Become a star!

If you're running an online campaign, multimedia sharing is essential. What you need to do is launch simultaneously on several platforms. The web site, the blog, the social networking account, Twitter and of course, the multimedia sites. For videos, YouTube is the most popular destination. Create a YouTube channel for yourself, and keep uploading videos. If it's still images that you want to use, Flickr is your best bet for a host.

Too much info?

If you're looking at information sharing, remember, the focus is more on brand reputation and brand awareness, as opposed to direct marketing. Sites such as www.mouthshut.com have user ratings for brands. Forums such as Yahoo! QnA, Rediff QnA (Questions and Answers) have users commenting and asking questions about brands. It is essential to revert back to these questions and answer as truthfully and as positively as possible. Having a page on Wikipedia is considered mandatory nowadays. Wikis and QnA sites, along with product review sites like MouthShut or ThinkDigit help a lot in terms of information sharing and brand reputation.

Microblogging

If you find something interesting, Tweet it. The principle is simple. Follow people who are interesting, get followed by people who think you are interesting. Update your status message regularly, and tell people what you think / what you're doing. Twitter is a very good platform to engage with people. It's completely unobtrusive. Plus, it's free and simple to use.

Indigo Nation started a "Wacky at Work" contest which asked users to send crazy pictures of them at work. Cadbury started a "Gift a Chocolate" application on Facebook this Diwali. The application was extremely popular and turns up the moment you search for "Facebook Happy Diwali". US president Barack Obama uses social media, and is one of the most followed celebrities on Twitter — both before and after becoming President. The Sunsilk Gang of Girls site for women was popular only for a while. The Jaago Re campaign against corruption / for voting by Tata Tea utilises a micro-site along with social networking. Of course, for good success stories, check the ZooZoo campaign.

BEST PRACTICES

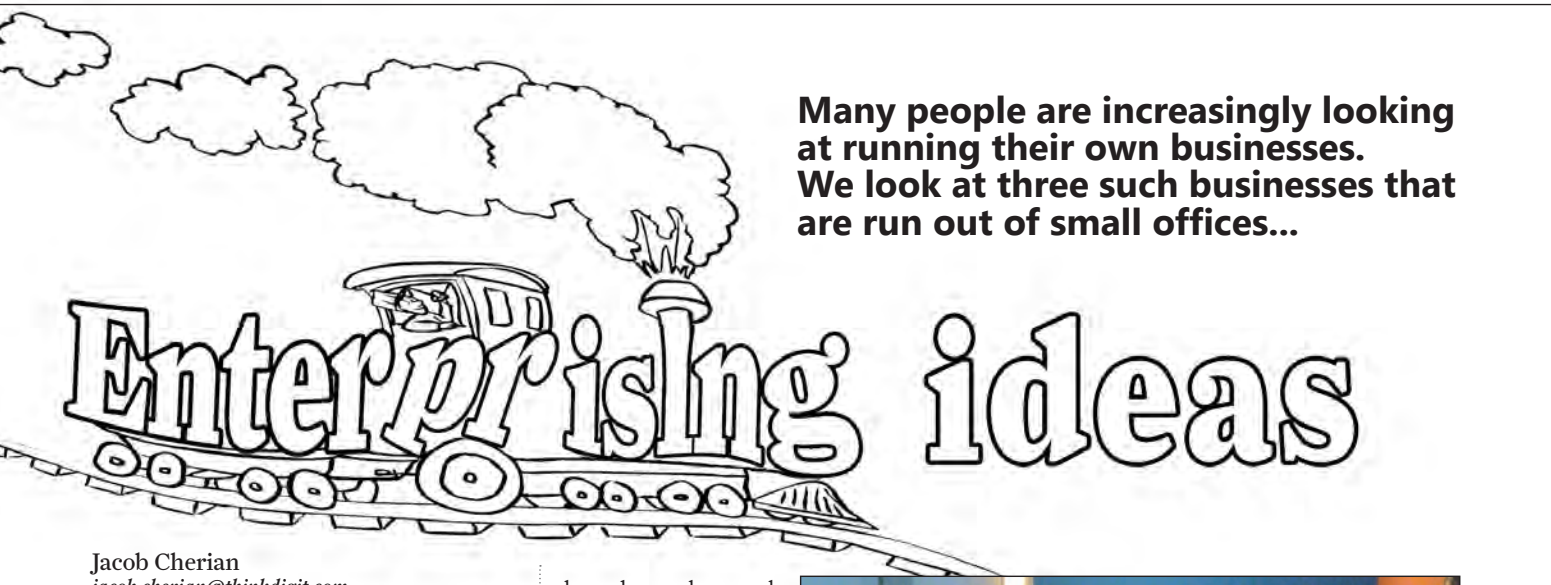
1. Create a fan page / official brand account (fan page recommended) (alternatively create a forum)
2. Regular interaction with regular content sharing – videos, pictures, links
3. Any press release, notification, on web site / blog should be accompanied with release of content on the fan page urging active discussion
4. Invite friends and fans. Start by inviting trusted associates / employees of the company. Build a good user base, then start inviting friends of known people.
5. Have a personality. While on Twitter, it is essential that your brand have a personality. Hence, humorous and opinionated tweets are appreciated
6. Engage your followers. If someone comments on your tweet, reply back. Chat. Also, re-tweeting your followers' tweets will earn you re-tweets yourself, which helps spread your word / brand around.
7. Do not have too many updates in a day. Flooding someone's feed with mindless tweets is irritating and frowned upon.
8. Use hash tags #<campaign name> if running a campaign with some specific name. A good example is the #moonfruit campaign which was so popular, it was the trending topic on Twitter for days.

THE INTEGRATION

1. Create a web site.
2. Create a blog. Direct people from your blog to your web site and vice versa.
3. Use SEO for your web site.
4. Use SEM (contextual advertising) and display ads for your brand. Display ads should link back to your web site
5. Create a Wikipedia page.
6. Create a Facebook and Twitter account.
7. Create LinkedIn, YouTube, Flickr and other accounts if deemed essential
8. Release updates to engage with your audience as multimedia / conversations
9. Simultaneous updates on your blog, Facebook fan page, Twitter, etc.
10. Once there is some interesting content, start gaining followers and fans on Facebook and Twitter
11. Use e-mail marketing once you have a loyal group who won't mind e-mails.

This is a basic online marketing campaign guide. However, to personalise this, try being innovative. Try engaging users by asking them to upload multimedia.

When it comes to cost, and popularity, social media is still growing. Though the cost is close to zero, the lack of knowledge prevents most brands and companies from experimenting with it. The marketing trend in India mirrors the West, though with a far lower budget. Search Marketing accounts for 60.1 per cent of all digital media marketing budgets, display advertising accounts for 30 per cent, and social media, 2.8 per cent. Online media as a whole accounts for 12 per cent of all advertising expenditure. So don't sit around, get started; make some money.



Enterprising ideas

Many people are increasingly looking at running their own businesses. We look at three such businesses that are run out of small offices...

Jacob Cherian
jacob.cherian@thinkdigit.com

Pixeltek

Vitek Goyel is the 26-year old founder of this game studio. They do outsourced work for international gaming companies.

What's this SoHo about?

Animation studios are a plenty in India. Most of these studios have scores, if not hundreds, of artists working in plush offices, building 3D graphics for international gaming studios. Pixeltek is a lot like these studios that outsource game assets, except that it takes on the SoHo model. This studio has 12 people, that work out of a South Mumbai office. You would have seen their work in games like *TimeShift*, where they built the characters, or in *Ghostbusters* where they built some of the buildings or in the game *iRacing* where they built the cars and the race tracks.

How does this SoHo run?

Pixeltek turns five years old in February 2010. The team of graphic artists has always hovered between nine and ten. They started out in a basement in Mumbai and then shifted to Bengaluru in their third year in an effort to cut costs. Eventually, for a range of issues they shifted back to Mumbai. They now operate from a 1500 square foot ground-floor office by the sea.



Pixeltek started off as a small studio, but today works with the likes of Vivendi

How does technology help further their business?

This studio has 12 high-end desktops to churn out those 3D graphics. In order to save on investing in rigs that will eventually require an upgrade, Pixeltek rents some of their machines. When an upgrade is required, they just send the machines back in and ask for an upgrade. This ensures that they always have the latest hardware and are not burdened with enormous investments. Some of the older machines were bought on an installment program.

However one of the biggest expenses for an operation like this is the licensing for the high-end proprietary software.



Toshiba's new Strata
Toshiba's Strata Messaging services is an affordable unified messaging service for SMBs and SoHos

3X deploys cloud
3X systems has launched private cloud storage solutions for SMBs to save their documents in a private central location

Where is this SoHo headed?

The first couple of years showed them the trouble that most creative agencies go through, which is the lack of a portfolio. Their big break came a year into the venture when a big international studio handed them a project. Since then, they've worked with studios like Vivendi, Foundation 9 and Sierra.

Pixeltek has found that some of the really big companies will only outsource work to a studio if it has more than 25 people, due to the scale of their projects. To reach this level, Vitek plans on doubling the staff over the next two years.

Contentmixi.com

Sundeep Tibrewal and Abhishek Rungta run a SoHo that caters specifically to other SoHos. They call it Contentmixi.com, simply because it offers customers both textual and graphical content.

What's this SoHo about?

SoHos have design and content needs like any organisation. At some point every company looks for a logo or a web site template designer. This is the space that Contentmixi.com targets. For example, if your company is looking for a logo design and doesn't want the hassle of rummaging through the designers in your city, then log on to the site and choose the kind of logo you want. Pay for it and Contentmixi.com passes on the payments to the vendors.

How does this SoHo run?

The company is now a couple of months old, has a team of seven and works out of two small offices in Kolkata. Sundeep and three of his team members sit in a small 100 square foot room in the heart of the city.

The particular office space is equipped with three desktops and a laptop. His other partner sits about five kilometres with the other two team members. Each of the employees take care of a particular product. Right now, products are logos, web site templates, articles, e-books, illustrations and animations. Vendors for each of these products upload their wares to the site and name their price. When an aspiring SoHo chooses to buy a certain product, like an e-book or a logo design, they pay for it and Contentmixi gets their cut.

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The team at Contentmixi is young

How does technology help further their business?

The company uses open source software to save on the licensing fees of the various office applications across the seven machines that this start-up uses. SaaS-based collaborative tools like Google Docs which is free helps the dispersed team to improve efficiency. Social media like Facebook, Twitter are used to save on the marketing dollars.

The team also built customised web applications, using open source technology to keep track of payments due to product partners and affiliates.

Where is this SoHo headed?

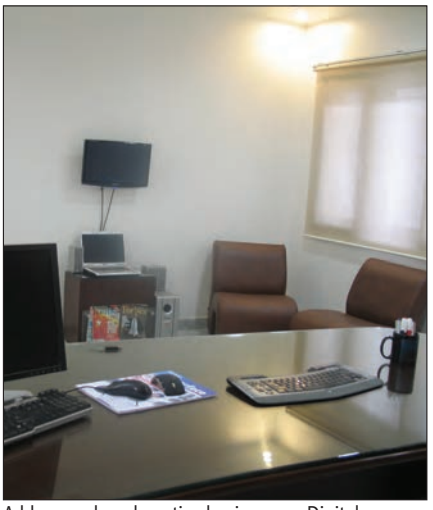
The partners, Sundeep and Abhishek, project a revenue of Rs. 20 Lakhs in the first year and Rs. 3 Crores by the end of the third year. Eleven months from now they expect to cross the 12-person mark thereby easing their way out of the SoHo category.

Digital Inspiration

Amit Agarwal runs one of India's top technology blogs from Agra. His aim is to demystify technology to make people's lives more efficient.

What's this SoHo about?

The blog was launched in 2004, and is now among the Top 100 Technology Blogs on the Internet. The site aims to get its users to make the most out of software tools and web technologies. Through his blog,


A blog can be a lucrative business, as Digital Inspiration has proven to be

FOLLOW US ON
twitter DigitIndia http://twitter.com/digitindia
facebook Digit http://facebook.com/digitindia
orkut Digit Club http://alturl.com/rznc
GupShup SMS Join DigitIndia to 567678

Amit tells you how to do things like 'Designing a magazine cover', 'Undelete old files and folders in Windows Vista Home', 'How to purchase books online for less' and just about on any new application that's getting released out there.

How does this SoHo run?

Up till a year ago, Amit blogged from home. He now works from a separate room, which serves as an office space, built on the same premises as his house. His office has one tablet, two laptops and a desktop.

On another wall he has a whiteboard to help him take notes. Across all the machines he runs different operating systems (Windows 7, XP and Ubuntu) to test their compatibility with various softwares. He says he's lined his office with potted plants to enhance the sense creativity in his work space.



Increasing your team size is vital with small businesses

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How does technology help further their business?

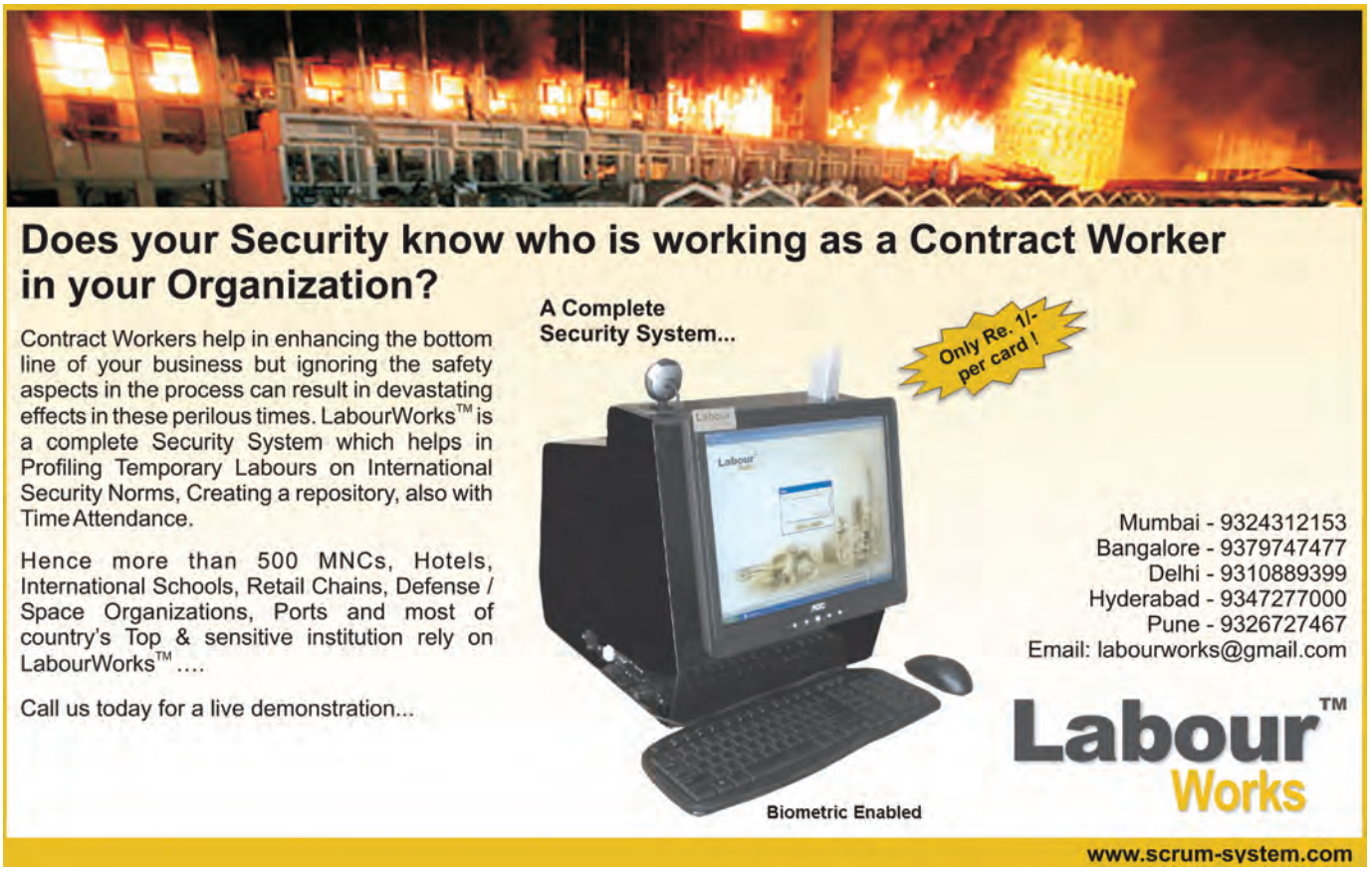
Amit has to stay on the absolute cutting edge of information to stay ahead of the curve.

This means that he has to keep a track of a number of information sources, like blogs, news sites and Twitter feeds.

Since his screens are usually dedicated to his own browsing and testing purposes, he has his information input coming in from another window. He has hooked up one of his laptops to a large wall-mounted LCD screen in front of his desk. This thereby ensures that almost everything that happens in his field does not escape his eye.

Where is this SoHo headed?

This blogger is very happy being a one man army and has no set plans for growth. He is content living in Agra with his family and he adds that this location makes it difficult for him to expand his team. His income is based purely on advertising and he currently makes a 5-figure income (in US dollars) on a monthly basis. With his following growing at a steady pace, he says he expects to touch a million dollars of advertising revenues in a couple of years.



IntelliSense
Microsoft's way of auto-completion of code, is part of Visual Studio so that programmers don't have to remember all the syntax

F#
Inspired by C#, this is the latest programming platform from Microsoft that supports the .NET framework

Connect with .NET

Rahil Banthia
readersletters@thinkdigit.com

Microsoft's Visual Studio 2010 beta 2, or its free counterpart, Visual Web Developer, makes creating web pages and adding features to them as simple as dragging and dropping. After this workshop, you'll be able to create your own personal web site — with minimal coding.

Create a new web site

Open the Visual Studio 2010 IDE. Go to `File > New > Web Site`. Select the language as Visual C# in the left pane, and the template as ASP.NET Web Site. Finally, select the directory where you want to save this and click `OK`. The Solution Explorer (right pane) will have all the files that make up your web site. Double-click on Default.aspx and page mark-up: HTML plus ASP.NET declarations and controls will open in the main window. This centre pane has three tabs at the bottom, known as Labelled design, Split and Source. You will be using these three tabs quite often as you create your web site.

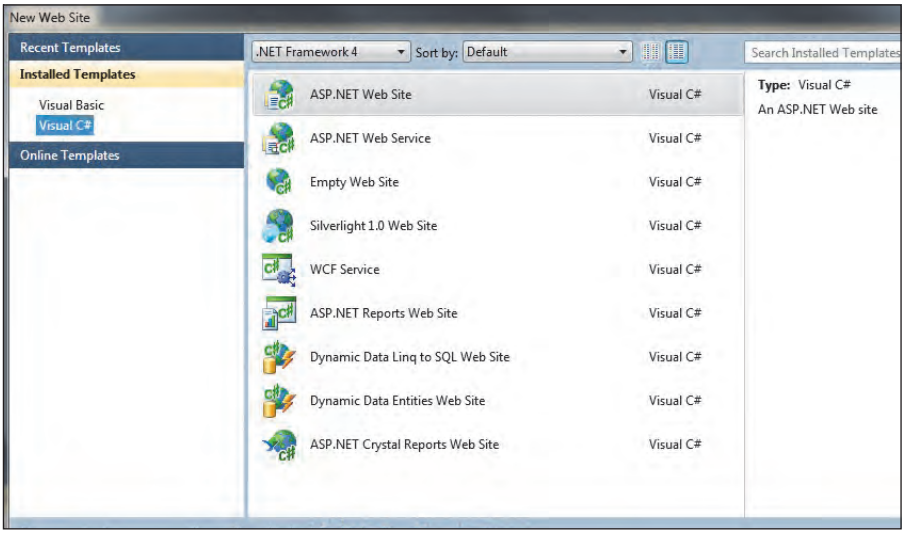
When you click on the design tab, the middle window of your IDE becomes the design surface. On this surface, drag and drop items such as buttons, text boxes, labels and so on from the toolbox, (present on the left edge of the main screen), and they will automatically become a part of your web page. The source view allows you to see the same controls displayed as HTML and ASP.NET mark-up.

Adding controls

You've already created your web page. To make your page live, you need to add some controls (building blocks of the web page's GUI) to it, including buttons, check boxes and list boxes.

As you progress through developing your web site, stop and run to see what it does so far. To do this, click on the menu item `Debug > Start Debugging`, or press `[F5]`. Click on the Start Debugging icon on the toolbar.

When you run your web site for the first time, the IDE detects that your project is not set to allow debugging and will offer to make that adjustment for you. After you click `OK`, your application begins, your default browser opens, and the page that contains your controls is displayed. Unfortunately, none of them have any events (event handlers) associated with them. Clicking on anything yields no response as of now. Creating the event handler for the Click event is as easy as it gets. In the design view, double-click the Button control. This instructs the IDE to create an event handler for that button and name it.



Select the type of project, and pick the objects you need in your web site

Adding controls

Click on the Design tab at the bottom of the main window to ensure that you are in Design view. Click on the pushpin icon in the title bar of the Toolbox to pin it in place.

Expand the Standard category of the Toolbox by clicking on the plus symbol. You will see a number of basic controls listed in the Toolbox, such as "Label," "TextBox," and "Button."

Click on some Button controls, Label controls and Textboxes in the Toolbox and drag them onto the design surface inside the div element one by one. Arrange them as you like to place them on your web-page.

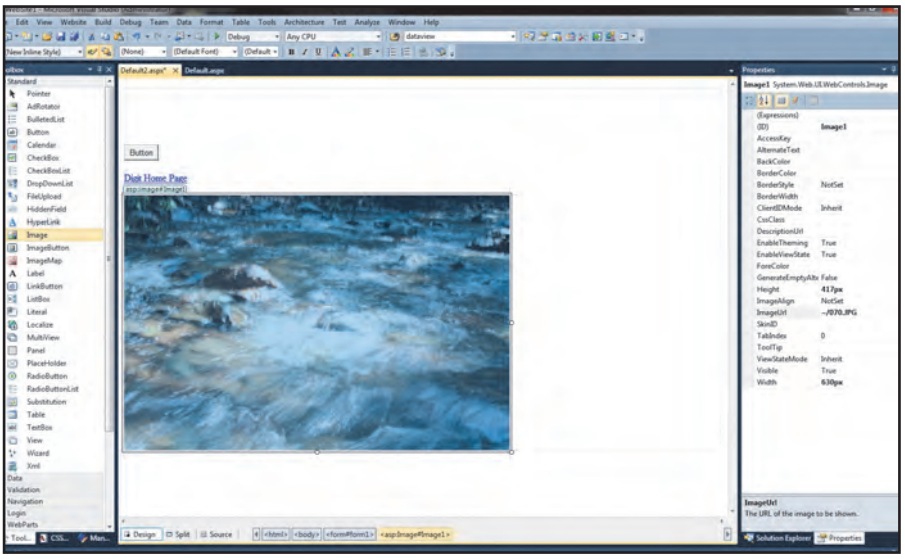
The IDE displays the code behind the event handler and lets you complete it. Here is where you add your own custom code, to specify the operations you want the handler to perform when it's called. If want to set the text property of the label control, which is named `Label1`, to the phrase `Good Morning`, you need to assign that string of letters to the text property of the label. Click inside the event handler stub, and then type `Label1.Text = "Good Morning";`

After you've added the code to your event handler, save the file by clicking the Save button on the toolbar. Run the program again by clicking the debugging icon or pressing `[F5]`. When the page opens in your browser, click the button. Your event handler is working now, so you should see the text label change to `Good Morning`.

With the file open, select the code behind, either from the tab at the top of the window, or in Solution Explorer. Go to the click event handler, and change the text from `Good Morning` to whatever you like. Switch back to the ASPX file. Select some control, and check out the

Properties window next to the Solution Explorer. There's more here than just setting the text, as you've done so far. Go to the Appearance section of the Properties, and play around with them to your liking. After you've kicked the tires a bit, run your application to see how it looks.

Visual Studio offers a number of different controls, to create lists from which the user can make a selection. These include the ListBox, the DropDownList, RadioButton and CheckBoxes. These controls work more or less the way you'd expect them to. There are several ways to display dynamically generated read-only text in your page — you can set the property of a label control, or you can use a read-only TextBox control.



Working with images is easy in Visual Studio

Adding images and links

An image can be a photograph, a drawing or even a logo. Visual Studio provides several controls to work with images.

`ImageControl` is used to display an image. `ImageButton` is used to create an image that can be clicked, acting like a normal button. An `ImageMap` control provides an image with multiple clickable hotspots. Each hotspot behaves like a separate hyperlink.

To insert an Image control into the form, drag a CheckBox and an Image control onto the form. In the Properties window, set the ID of the CheckBox to `cbDisplayPhoto`, and be sure to check AutoPostBack to `True`, and Text to `Display Image`. Also, set the TextAlign property to `Centre`.

Set the ID for the image to `Image1` and the ImageURL to the file you would use. Once you have the file, simply drag and drop it on to the Website1 folder in Solution Explorer. You'll see the image file appear in the file tree alongside your other solution files. You can also use any image file you have handy.

The Image control has three essential properties: the ID (so that you can address the control via code), the ubiquitous `runat="server"`, and the ImageUrl that identifies the location of the image in your directory. Because you put this image in the base directory of the application, you do not need a path name.

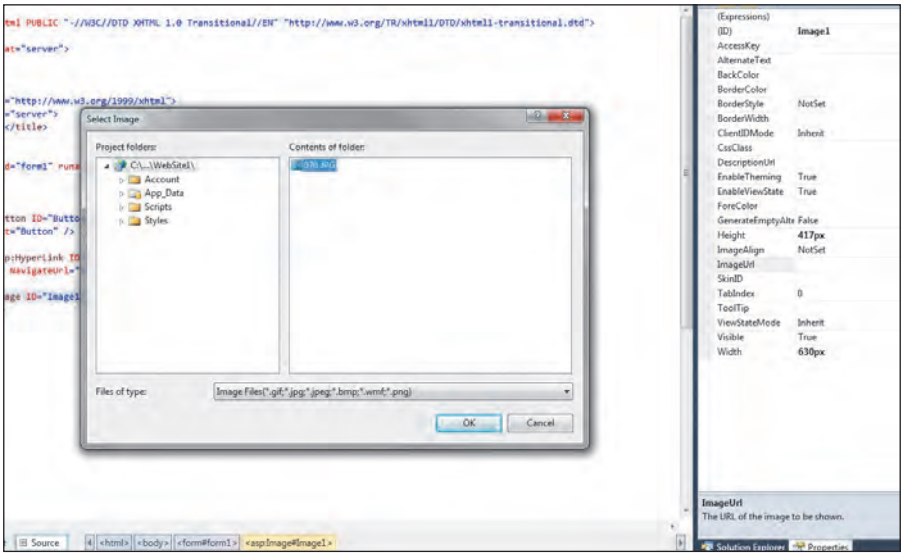
The name of the file itself will suffice. On our web page, the CheckBox control offers the user the opportunity to control the image visibility. It has its AutoPostBack property set to true so as to force a post-back every time the checked property changes. To make use of this, of course, you will have to write an event handler for the CheckedChanged event.

Double-click the CheckBox to create an event handler for CheckChanged, and add the following line of code:

```
Image1.Visible = cbDisplayPhoto.Checked;
```

This event handler changes the Visible property of the image to the checked property output. When the property is set to false, the image isn't rendered. When you uncheck the box, the page posts back, and the image vanishes.

Hyperlinks provide immediate redirection to another page in the application or to a location elsewhere on the internet. We'll use a HyperLink control to provide a link to Digit's home page, serving here very much the same function as an `<a>` tag would do in HTML. Drag a HyperLink control on to the bottom of your form. Set the ID to `hypContact`, its NavigateURL to `http://www.`



Browse to the image you want to place in your site and add the relevant information. Visual Studio will do the rest

Wolfram | Alpha
Microsoft's Bing search engine has now teamed up with Wolfram | Alpha to increase its reach of algorithms

Free CMS
You could also consider opting for theme-based open source content management systems such as WordPress, Joomla or Drupal to create your own web site

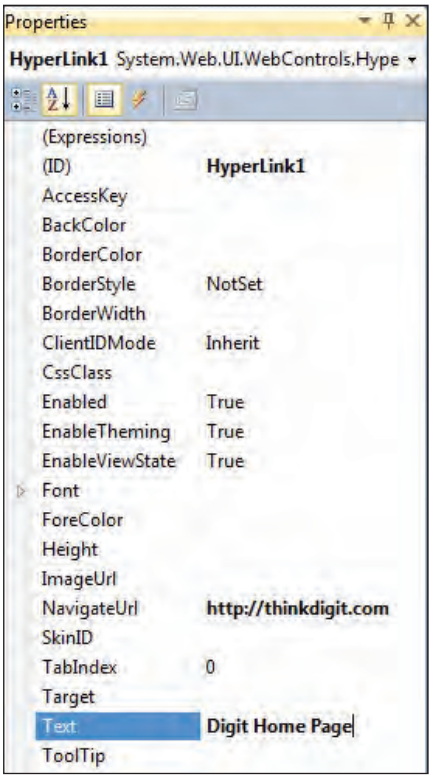
`thinkdigit.com`, and its text (which will become its inner HTML) to `Think Digit Homepage`. Finally, set the Target to `_blank` to render the content in a new unnamed window without frames.

Setting up Users and Roles

You'd prefer your personal web site to make sure users "log in" before viewing your personal content. This allows the site to restrict access to random people, and also allows the user to personalise the site to their individual needs.

Not long ago, creating the framework of logging in was a tedious and time consuming job: you had to create a database to track users, create the ability to maintain secure passwords by hard coding, ensure authorisation on each page, assign users to "roles" (such as guest, member, owner and wizard), and so on. You also had to write code for all the controls that allow the user to log in, to recover passwords, to change passwords, and so forth.

Click the Security tab. You'll see a window that gives you links to set the authentication type, define authorisation rules (using the access rules section), and enable role-based security for your web site.



Set parameters for your web site, without bothering about code

To set an application to use forms authentication, click on `Select Authentication Type`. Choose `From the Internet`. Click on `Done`. The appropriate authorisation tag will be created in the `web.config` file automatically.

Next, define the authorisation rules for different types of users. To do so, click on the Create Access Rules link. To manage multiple rules, you'll need to click the Manage Access Rules link.

FORM AUTHENTICATION

Enable forms authentication and denying anonymous users in the web.config:

```
<configuration>
<system.web>
...
<authentication mode="Forms">
<forms loginUrl="~/Login.aspx" />
</authentication>
<authorization>
<deny users="?" />
<allow users="*" />
</authorization>
</system.web>
...
...
</configuration>
```

Now, users will be redirected to a login page named Login.aspx that you need to create. When the user clicks on the Login button, the page checks whether the user has typed in the password 'zxcvqwerty' and then uses the RedirectFromLoginPage() method to log the user in. Here's the complete page code:

```
public partial class Login : System.Web.UI.Page
{
protected void cmdLogin_Click(Object sender, EventArgs e)
{
if (txtPassword.Text.ToLower() == "zxcvqwerty")
{
FormsAuthentication.RedirectFromLoginPage(
txtName.Text, false);
}
else
{
lblStatus.Text = "Try again.";
}
}
}
```

You can change the order of rules and hence the priority. If you have a large number of rules to create, it's easier to edit the `web.config` file. Once you've specified the authentication mode and the authorisation rules, you need to build the actual login page, which is an ordinary ASPX page that requests information from the user and decides whether the user should be authenticated or not.

Putting together the pieces

You've run all the pages from within Visual Studio 2010, and the web server you've been using is the ASP.NET Development Server that's built into Visual Studio. This set-up is good for testing. However, you can't run a public web site this way. For starters, it's unlikely that your computer is set up as a web server.

The ASP.NET Development Server that you've been using can't be used to serve a public web site as it accepts requests only from the local computer. You have a couple of options to get your site live that depend on how much of the site administration you want to take on. The easiest and most common option is to rent space from a hosting company and link it to your domain. Another option is to host the web site on a computer you maintain yourself. This is less common, but certainly possible.

There you have a functional web site with user registration, your personal information, photos, session state, and a consistent look and feel, all coded by you. You can now go out and create sites that you didn't dream were possible – before you read this, that is. There are plenty of more features that you could add to this site, such as more complex validation, user profiles, data handlers, image gallery and LINQ. The example here provides a good start for additional exploration in web development using Visual Studio.

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Geek culture: *Posthumanism*

Posthumanism, or Transhumanism is an umbrella term for a wide spectrum of beliefs about the direction in which technology should accentuate the human evolution.

Body



IMMORTALITY
Medicine progressing enough to allow immortality, some say the first are already born.



CYBORGS
Think RoboCop, or Vader not Terminator. Human bodies merging with machines.



CLONING
Human cloning is another primary objective of posthumanists, as is genetic modification.

Mind



NEUROHACKING
Fiddling around with the neurons in the brain to amp it up and for better memory.



MIND UPLOADING
Feeding your brain into computers, living in virtual reality and transfer to another body, say an android.



AUGEMENTED
Reality: Digital overlays in real life, sort of like the HUD in popular games and MIT's sixth sense.

Species



COLONISATION
Moving out of the homeworld and seeding colonies on other planets and systems.



OMEGA POINT
The point at which evolution ends, and we reach the status of the ultimate beings.



POSTGENDERISM
Blurring the lines between male and female to create a unisex species through medicine.

digit DIARY

v gt a lot of mails n sms lngwj, so v thot v wud nflict sm of d torture on u n dis mnth's dgt diary. cybrjnky is d wthrman arnd here, nd is much b8r thn thos wthrmen in nuz chans, bcoz of his hbt of campng at strng sites no1 relly goes 2. nd whn the frst reprts of dis mnth's cyclone strtd comn in, cj hd googl wthr on his scrn b4 any1 cud say "lets tk d rest of d day off." Mst of us cudnt rly see nethng in d green n blu dat was on his scrn, mch less mk out d cntry. Thr was hwvr, a bg swrl of vite, whch was d cyclone, bt cybrjnky sd it ws "prtty fr off", nd dat it "wudnt hit da city", so we hd to sty bk at wrk. hw v wish v wer at schl.

cyclones nd tyr pnctrs wer no excuz 4 a nu schm dat rabo came up wth. ne1 who came 2 wrk l8r thn 10 hd 2 pay rs. 50 fr evry hlf hr dey wer l8. no1 cme on tme, n teh ktty is gting bigr. At ths r8, rabo vil b d nxt mbani.

Now wasn't that fun? Please remember to write to us in English that others can understand, or we'll write the whole magazine like that next time. You've been warned!

Flash Games: N

This flash game has a net.art styling, and is a lightweight but futuristic environment. You are a small ninja in one of three episodes, collecting golden cubes (actually squares), and jumping around in a gamespace with very interesting physics. Some blocks wobble, N almost flies when he jumps, and you have to be on the look out for all sorts of things thrown in your way, including heat seeking missiles.



1337sp33k

Stay up to date with internet lingo, so you don't wt? the next time you are chatting with someone

ttfn: tata for now, used to sign off at the end of a conversation

tubes: wires, network, whatever makes stuff on the net go from one place to another. Used as a substitute for the internet.

Cake: from the popular game Portal, Cake is something that is imaginary, as in the answer to the square root of pi.

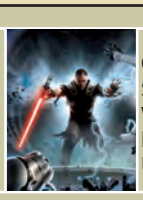
How we unwind



Movies
Paranormal Activity: We were caught up in the storm of hype this small budget Cloverfield like film threw up.



Music
Transcend: A free album by Indian rock artist Sridhar. Available at http://www.sridharsmusic.com.



Game
STAR WARS, The Force unleashed: We succumbed to the dark side by playing the Sith Unleashed Ultimate Edition of the game.

NEWS

Google StreetView does it yet again

It seems that the Google StreetView team has not learnt from it's mistakes in the past. Reader's will remember the passed out Australian, the litigation by just another person in her front garden who felt her privacy was invaded, and a person flashing the finger as the StreetView car passed by.

This time around, Google has managed to capture a spaniard taking a leak on a beach. Funnily enough, this is not the first time that Google StreetView has made this very same mistake. Previously, bookmarks and diggs showed a man in San Fransisco watering the plants, and a woman in Madrid hiding behind a car for some privacy. What takes the cake, however is that Google officially promoted the particular link as a holiday destination. Instead of wiping the image using a photoediting software, the image was removed entirely with a notice "This Image is no longer available." Some of us spotted the StreetView cars roaming about in Mumbai. We wait to see if India throws up anything interesting.



Image Credit: **Joshua O'Neill**

tech art: Digital Painting

Digital Painting is the technique of using digital painting software, along with a tablet to simulate real world materials and substrates. This can range from canvas to paper, and the paints could be oil, water colour, or other mediums. The portfolio for this particular artist is located at www.noonanworks.com.

www.sketchfu.com



A great Web 2.0 site for creating and sharing basic sketches. You can start right away, or login to save and share sketches. All sketches record a complete history of your work, and this can be edited at any stage by the people that you share your sketches with. If you do dive in and are unsure about what to draw, then there is a great widget on the side that throws up interesting ideas. We got "insane python", but we did this instead. Really great, but we wish there were more tools.

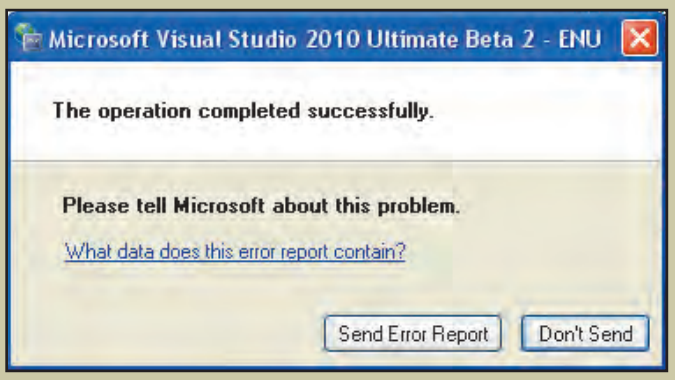
The Jargon file

Muddled by all the terms we use? Here's your short guide to the tech terms used in the magazine

Open Source: Software which allows users to have the source code, or the programming of the software itself. This means that users have the freedom to modify the software they use. The source code is either free, given free with the software license, or sold seperately. Closed Source software don't distribute, share or sell the source code at all.

Compression: Reducing the footprint of files in system memory.

DirectX: A trademark Microsoft product that acts as a middleman between games and system hardware such as graphic cards and sound cards. Instructions from a game engine are interpreted by DirectX and passed on to the hardware.

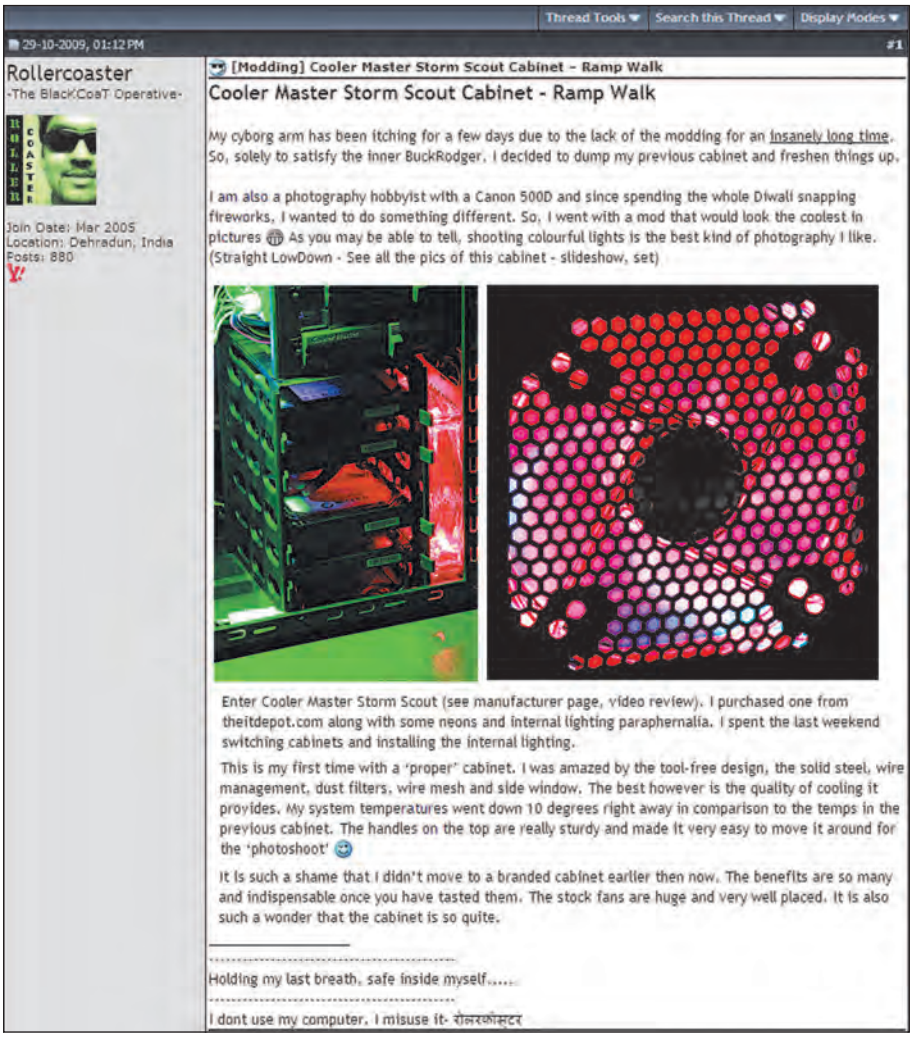


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We speak your language
Think you have what it takes to be a coder? Presenting Digit's platform for developers. Log on to devworks.thinkdigit.com

Let the modding festivities begin !

Some machine men of the digit community just cant get enough of modding. Take Rollercoaster a compulsive modder who even took apart a UPS to try and mod it with funky LEDs and increase battery life. Here's his latest thread on modding where he shows off his CoolerMaster Scout mod with neon. http://www.thinkdigit.com/forum/showthread.php?t=122108



October Digit Festival Contest Winners.
Lucky participants who answered daily questions and won all this cool stuff are mentioned below. All prizes will be received before 10th December 2009. If you do not receive the same till this date, please mail us at subscription@thinkdigit.com. [Winners of the Grand/Mega prizes on next page.]

WINNER'S NAME	CITY
DIGIT FAST TRACK	
Rachit Kalia	Ludhiana
Pushpa Lakra	Jamshedpur
Rohan Mathew	Waynad
Rahul Kharyal	New Delhi
Anita Bhanja	Bhubaneswar
Ratan Gupta	Jabalpur
Sonal Jindal	Meerut
Hidaytullakhan Parmar	Banaskantha
Arun Prakash	Coimbatore
Vishal G Mistry	Umbergaon
Gagan Jindal	Meerut
Aditya Bansal	Agra
Adarsh Mishra	Noida
Chetan Shetty	Thane
Rohan Mathew	Waynad
David Baruah	Guwahati
PEN DRIVE	
Anand Doshi	Mumbai
Indranil Nanda	Calcutta/Kolkata
Mohamed Fasilm	NA
Ravi Shukla	Akola
Srinath H. R.	Bangalore
Anand	Bhopal
TECH BOOK	
Rajat Bhatnagar	Secunderabad
Rakesh Kumar Garg	Roorkee
Mir Muzafar Altaf	JammuTawi
Urmilla	New Delhi
DIGIT SUBSCRIPTION	
Srinath H. R.	Bangalore
Nirmalya Royn	Guwahati
Prashant Shah	Calcutta/Kolkata
PHOTO FRAME	
B.Uma Maheswara Reddy	Secunderabad
Manish Maini	Delhi

tezguru.com

It's not everyday that search engines get launched. Especially by 15 year olds from unheard of rural areas like Siwan in the heart of Bihar. But this is precisely what Shivendu Madhava, a proud member of the Digit community since 2006, has done by launching a new search engine called www.tezguru.com, while struggling against considerable odds. "Since internet connection is a scarcity, my dad drives me to a cybercafe which is 16 kilometers away by motorcycle. I sit there for eight hours a day and work on the search engine" he says. What about the engine itself? "It's back-end is not based on any other search engine", he explains. How then did a 15 year old kid with very limited internet access build a search engine from scratch? "I've got interested in IT four years ago. Since then, I started learning programming languages like C++ and then eventually PHP" he says in his rustic English. He even printed promotional leaflets to locally popularise the engine's ability to sniff out songs in regional languages and he also promotes it on a developmental forum called biharbrains.org. His efforts seem to be paying off. "Tezguru.com gets upwards of 3,000 unique hits on a daily basis", he says. Now this bright boy is looking for venture capital to fund two other projects in the pipeline. One is a mail service called Tezmail and the other an Indian blogging service called Tezpress.



Microscopic recognition
A microscopic photograph of a flea that looks like a glowing alien wins a top photography prize

Green cola
Coca Cola goes green by bringing paintless cans that would help save energy while reducing air and water pollution



GRAND PRIZE
Hero Electric MAXI
Vigneshwar Bose, Ooty

GRAND PRIZE
Hero Electric contest winner for September09
Deepak Patel, Kanpur

MEGA PRIZES

MapmyIndia GPS device
Rohan Mathew, Wayanad

Genius Camera
Pushpa Lakra, Jamshedpur
Narendra Dhande, Navi Mumbai

Gift from TECH-COM
- Hidaytullakhan Parmar, Banaskantha
- Krishnamoorthy, Chennai
- Rohit Rajpal, Ghaziabad
- Amanpreet Singh Arora, Ghaziabad
- Vaithianathan D, Chennai

Consumer Protection

The service aspect of any technology product you buy as consumers, is often neglected. The service has a history of being so abysmal, that consumers tend to take all responsibility of the product at the point of sale.

When things go wrong however, it can be a horrible experience running from pillar to post just to get things to work again. It is a doubly frustrating experience when you have no single person to hold responsible. In such situations, being prepared and knowing your rights as a consumer will take you a long way in finding solutions. When you make a purchase, be sure to carefully file the bill, and understand the limits and extent of the warranties offered. The small print usually lists all the liabilities of the manufacturer or the company providing you with service.

When you complain, there are steps you can take to make sure that your problem is addressed quickly, and you and the company arrive a suitable resolution of the issue. Although making a complaint over the phone may seem as a more direct way to communicate, e-mails are a better and more fruitful way to contact a company.

Anyone who replies the mails is very likely to know more about the problem, and guide you towards the procedure in a better manner. This also serves the purpose of recording all the communication between you and the company. If you do call up the company, demand that you get a complaint number to track the progress of your complaint, and note down the date and time of the call, as well as the name of the person you spoke to, along with their designation.

When you do face terribly bad service, and don't know what to do next, we are there to help you out. Write in a mail to servicewatch@thinkdigit.com, and we will take up your problem with the company. When you mail in to us, make sure you include all the e-mails back and forth, and the details of all telephonic communication you had with the company. This makes us better equipped to tackle the problem.

December 2009

digit events

Digit is taking interactivity to a new level, and will be organising events every month. You get to meet and interact with people that you wouldn't in the normal course of your life — industry experts, Team Digit, and other readers with similar interests. Stay updated and stay ahead of the curve by looking for this page in every month's magazine.

1 Career Webinar — Mobile Technology



DECEMBER 11
TIME: 1500 HRS

In the last few years telecom industry, especially mobile phones, have changed the way people look at telephones. The '6-inch' device has changed the rules of the communications game and now has become the first digital device that the next generation acquires. The Mobile phone has already started challenging the computer, both in terms of capability and cost. It is the 'In' thing now. Siddhartha Singh, a technology enthusiast who works as Senior Technology Manager in Mavenir will talk about the mobile industry as a whole as well as its potentials and future role in shaping the next generation. He will also talk about various application like LBS and others in the webinar. Send in specific questions before the webinar to **careertalks@thinkdigit.com** with a subject line "Mobile".

2 Digit Webinar — Demystifying HTPCs



DECEMBER 12
TIME: 1700 HRS

Setting up a Home Theatre PC to satisfy your downloading and media entertainment needs has never been so easy. Since prices are at an all time low, the timing cant be better to go in for an HTPC – join us and find out how. In this webinar we'll talk about the hardware you'll need, how to assemble it, and the software you can install to set up your own HTPC. Explore the world of Mini-ITX cabinets and cool media centre software like XBMC media software. Learn about air mouse remotes, wireless keyboards, and the tricky art of setting up DVR on an HTPC.

For details on upcoming webinars and to view past webinars, visit **thinkdigit.com/webinars**

Back on track
CERN scientists successfully restart the Large Hadron Collide after a year long delay

On-demand abuse reporting
The social networking site Bebo has set up a special onscreen panic button for users to report abuse without delays



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Readers of trust trophy winners

Icons of Trust 2009

Ever year we have our Icons of Trust initiative which rewards brands for listening to the needs of the users, and providing excellent products and service. But this year we added a new spin to it. We started a category called Reader of Trust, to felicitate those readers who have spread awareness, helped and educated their peers. So it was payback time for many readers who have for years been imparting their knowledge for free. If you're one of them – a guidance guru, you would surely know how everyone from your family, friends, neighbours, and even the clueless local assembler pretty much depends on you for all their tech shopping needs. Such readers had to nominate themselves for a chance for fame and glory while 10 other lucky participants won Digit subscriptions. Three of these who garnered the most number of votes won the Readers of Trust Trophy. And here they are.



ANISH SAWANT
24 YEARS OLD, VASAI, MUMBAI, ENGINEERING STUDENT
He says that his subscription to Digit has been good guidance for his recommendations. His recommendations have spanned 10 years. Yes, that's right. Since he was 13 years old which he calls the "AIWA CD player days" he has been the guidance guru to most of his peers.



ROHAN MATTHEW,
23 YEARS OLD, KALPETTA TECHNICAL ASSOCIATE AT A RESEARCH INSTITUTE
He says that there is an increased need for advice in his neighbourhood and he seems to have become the local consultant for gadget-buying advice. Friends, family and people he's never met call him up regularly to make sure they make the biggest bang for their buck. He recalls how he's made the most recommendations, based on the Monitor-special issue of Digit. "I am honoured to receive this trophy and being selected as Reader of Trust by Digit. This gives me even more confidence in providing IT advice." he says.

Twenty-five years in IT has given Prashant Joshi plenty of learning room and 1000s of people who have gone with his recommendations before making their purchase. Prashant says he is in the 'business of faith', because so many people have trusted his word before buying their computer. "In my twenty-five years of association with IT, I am happy to see the spotlight turned on the readers for the first time, a pioneering effort, which would pave way to a growing community of 'reader-contributors' in future." he adds.



PRASHANT JOSHI,
46 YEARS OLD, NAGPUR, SELLS HARDWARE AND CONDUCTS IT TRAINING



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154 Dragon Age: Origins

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EAT SWEET DUST

COLIN MCRAE: DIRT 2 REVIEW

Reviewer: Faiyaz Shaikh
Genre: Racing
Platform: PC, PlayStation 3, PSP, Microsoft XBOX 360, Nintendo DS, Nintendo Wii
Developer: Codemasters
Publisher: Codemasters, SCEE

Price:
PlayStation 3- Rs. 2,499/-
PSP- Rs. 1,499/-

WHAT WE LIKE

- Variety of race tracks and locations
- Rally races are a joy
- Difficulty scales well
- Immersive

WHAT WE HATE

- Race loading time
- Too few upgrade and customisation options

THE SKOAR!

Graphics.....8
Sound 6
Gameplay 9
Mojo 7

8

After the untimely demise of the Scottish rally legend, *Dirt 2* comes across as much as a tribute, as it is a follow-up to success of *Dirt*. As far as this game goes, the void left by Colin McRae's absence has mainly been filled by two American rally drivers—Ken Block and Travis Pastrana.

Of Races and Places

The game's career mode starts off with your racer profile by selecting you name, gender, nationality and picking a nickname that the game will use to refer to you. This follows into a video tutorial that walks you through the ropes. Along with your race cars, the game provides you with a trailer that acts like a hub and doubles up as the game's menu system. Races in Dirt 2 takes places in multiple locations and across four continents—North America, Europe, Asia and Africa.

The racing events in each of these places are laid out on an events map as they become available. The primary objective of your career is to earn experience points and money. Experience points are earned by winning races and reaching certain milestones in your career.

As expected, experience points add up to advancing your character level; which is essential since racing events become only available after reaching a certain level of experience. Money is obviously earned by winning events; however the amount of money earned per event depends on the difficulty level that you





select before each race. Money is used to purchase new rides or to upgrade cars you already own.

There are two types of race tracks in *Dirt 2*—traditional rally circuits that are completely off-road, dirt tracks and hybrid tracks that are a combination of dirt and tarmac sections. There are several event types available on these two tracks—circuit races, last man standing, one-on-one challenges, rally, etc. There is another race type worth mentioning called Gate Crasher where the objective is to achieve the fastest lap and smash through as many "gates" as you can.

All the races on the map essentially add up to be qualifiers for bigger events like the X-Games and World Championship events. Winning these big events reaps a major payout in terms of cash, XP and sometimes even new rides.

The Bounty and the Beast

Other bonus rewards come in the form of liveries (skin) for cars, dashboard and windshield toys, horn types and rally partners.

When you sum all this up, there is plenty in the game to keep an average gamer busy for about 15- 20 hours. For me, the best experience was racing in rally events—essentially racing solo in a point-to-point event over some beautifully crafted tracks. The games graphic engine does a pretty good job at delivering the whole experience of racing through the rugged race tracks. You get to race through wilderness of Malaysia, deserts of Morocco, gravel-filled roads in China.

Perhaps word of caution to casual racers— even on lowered difficulty level, the game keeps you on the edge. Being the first to cross the finish line requires a touch of finesse— push your car in one direction too hard and you'll find your car spinning out of control. The "Flashback" feature of this game comes as a savior for the lesser-skilled racers such as me.

For a limited number of times, the game allows you to correct your mistakes by letting you "rewinding" the race within a specific timeframe. In absence of this feature of course, one mistake could potentially compel you to completely restart the race. The number of Flashbacks available per race and varying degrees of driving assists are available depending on the difficulty level you choose before each level. These features combine to do an admirable job at satisfying the casual racers, Zen masters of racing and everyone in between.



Pole Position

Overall my experience with Dirt 2 was quite enjoyable, although there were times when I wished those Buggies were not so damn difficult to handle. Thankfully, the way the events are setup, you can avoid certain races and still achieve major landmarks in your career. There is a good variety of vehicles in this game.

In spite of near 4 GB installation on the PS3, there were instances of texture pop-ins. Also, the relatively high load-times are especially unpleasant during multiple race events like the World Championship—often times, the rush from a previous race is lost staring at the loading screen. I recommend this game; especially to those that are looking for something that is right in between an arcade-style racer like NFS or Midnight Club and racing simulations like Gran Turismo or Forza Motorsports.



BRÜTAL LEGEND

Headbangers Galore

Brutal Legend Review

Reviewer: Faiyaz Shaikh
Genre: Action, Adventure
Platform: Microsoft Xbox360, PlayStation 3
Developer: Double Fine Productions
Publisher: Electronic Arts

Price:
PlayStation 3, Xbox 360- INR 2499/-

WHAT WE LIKE

- Great tracklist for Metal fans
- Captures the spirit of Metal mythos
- Good humor

WHAT WE HATE

- Less than satisfying game play
- Offers little to those who are not fans of metal music

A tribute to Metal Gods and head-bangers across the globe—Tim Schafer and his team's latest labor of love has finally seen the light of day. Brütal Legend is set in the fantasy world of rock and roll mythos—an expertly crafted world based on art and style of Norse mythology and Metal album covers. This game is just as much an accolade to the Metal Bands of yore as it is critical of the Glam Rock bands that followed.

ANGEL OF RETRIBUTION

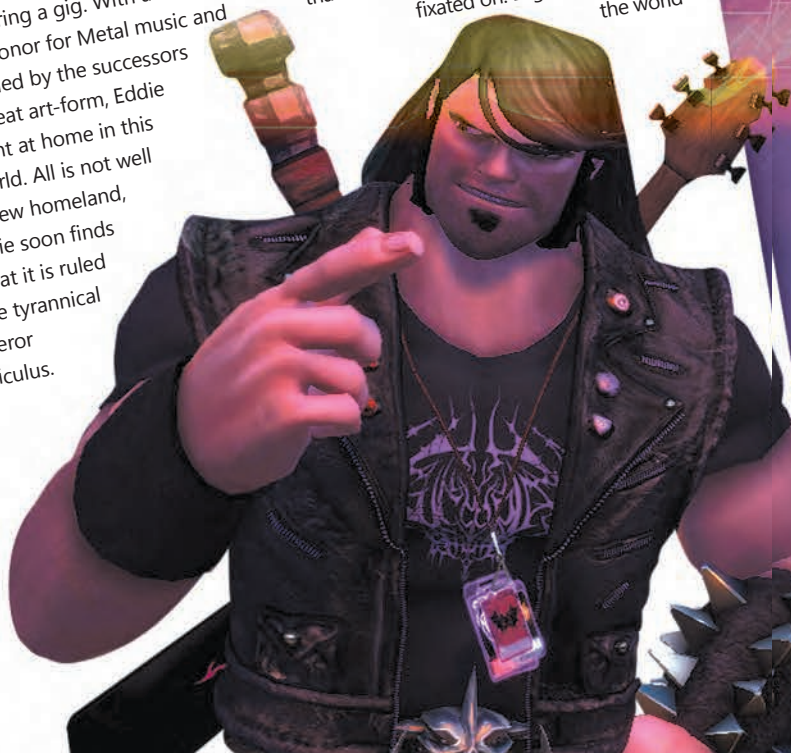
The protagonist of the game is a roadie who goes by the name of Eddie Riggs, finds himself transported to a fantasy world following an on-stage mishap during a gig. With a deep sense of honor for Metal music and disillusioned by the successors of the great art-form, Eddie feels right at home in this new world. All is not well in his new homeland, as Eddie soon finds out that it is ruled by the tyrannical Emperor Doviculus.

He finds kinship with a group of dissidents, led by a character named Lars Halford who is accompanied by his sister Lita and Eddie's love interest in the game, Ophelia. Eddie and his new friends will come across a bunch of interesting characters as they garner support for their fight against the Emperor and his second-in-command, General Lionwhyte.

Helping Eddie fight for this cause is his personal arsenal of metal goodness—a Flying V guitar, a battleaxe and a hotrod called The Deuce (also called The Druid Plow).

OF MICE AND MEN

Rendered using a custom in-house engine, this game should be a refreshing change if you are one of those who are bored of the usual brown-grey palette that most of the industry seems to be fixated on. Legend has it that the world









was created and ruled by a great fire-and-metal beast called Ormagöden. After the beast's fall, the world was inherited by a race of super-humans called The Titans who's greatest contribution to the world is Heavy Metal music.

For most part, the game plays like a typical open-world game. However, what sets this game apart from the rest is the intricately crafted architecture and landscape. Strewn across the world map are triggers for the game's main campaign mission and a host of side-mission. Completion of these missions is rewarded with Fire Tributes—a currency of this world, used to purchase upgrades. Providing these upgrades is the Guardian of Metal— a role expertly played by Ozzy Osbourne.

In addition to completing these missions, Fire Tribute can be earned by unlocking points of interest scattered throughout the game world— each with its own, additional unique reward. For example, freeing a fixed number of gagged Dragon Statues will be rewarded with a boost to character attributes like health. Other rewards come in the form of new guitar solos, additional music tracks that can be played on The Deuce's radio, insight into the origin of the world and a panoramic view of the world's many landmarks.

VULGAR DISPLAY OF POWER

Fire Tributes are exchanged to purchase, among other things, upgrades for your guitar, battleaxe and the hotrod. Most notable of these upgrades are the ones available for your car— on complete upgrade, it transforms The Deuce into one of the best looking cars ever seen in a game. It's not all about looking cool however, as there is some serious fire power available for your machine, along with performance and armor upgrades.



The game has a fair bit of variety when it comes to combat. Combination of guitar and battleaxe can be used to attack your enemies with some devastating combos, most of them stylized after the on-stage antics of Metal bands. Ranged fire power is available by using only the guitar—either in the form of combos or guitar solos.

Guitar solos take on the traditional role of magic spell and works a lot like note matching style of music games like Guitar Hero and Rock Band. Some of these guitar solos are context sensitive, while most of them have unlimited uses. To prevent spamming however, some of these powers have a cool-down timer. Additional combos and weapon upgrades become available as you progress in the main campaign and they can be accessed by visiting Guardian of Metal at one of the several Metal Forges in the game world.

BRING YOUR DAUGHTER TO THE SLAUGHTER

Apart from the solo exploration missions, the game will throw you into a group battle called Stage Battle. This mode has some elements from the RTS genre and some from squad-based games like Overlord and Pikmin. In a Stage Battle, a concert stage acts as a base of operations and the battle commences with each side setting up their own stage.

The ultimate goal here is to destroy the opposing forces' Stage. To achieve this goal, you'll need to recruit combatents from your Stage—



more powerful units will only become available after you upgrade your Stage. To purchase upgrades and recruit units, you'll need to spend Fan Tributes that can be acquired by building a Merch Booth (merchandise booth) on top of Fan Geysers. Hence, having more Merch Booths than your opponent becomes essential a part of your winning strategy.

For most part, Eddie will play a more indirect role in this type of battle by issuing commands and buffing his own units or de-buffing enemy units. He can also team up with any of the available units to unleash some special attacks. If the enemy units get too close to your Stage, a last line of defence is available in the form of speakers and spot-lights.

NOTHING ELSE MATTERS

In terms of game-play, Brütal Legend does not offer anything revolutionary. What it does well is combine some of the tried-and-tested elements from other games to a generally satisfying effect. The game has a brilliantly funny script that we all have come to expect from Tim Schafer, which is further supported by some solid voice acting from the likes of Rob Halford, Lita Ford, Tim Curry and David Cross, among others.

Most notable of the lot is voice acting by Ozzy Osbourne with his signature broody voice and the work of self-styled messiah of Rock 'n' Roll, Jack Black— who has given the voice to the game's protagonist. The game serves its intended audience of Metal fans well, featuring a track list that can be envy of any music game. Consisting of over 100 tracks by over 70 different bands, the track list reads like a Who is Who of Metal Legends, along with some lesser known cult classic and some original composition for good measure.

HARD AS A ROCK

Like all the other games out there, Brütal Legend also has some flaws—most of them minor and none that are game breaking. For one, some people may find the main campaign a little short spanning over six to seven hours. Additionally, like with most open-world games, the side mission can get a bit repetitive. For me however, the biggest gripe was the control and camera system, particularly during the Stage Battles. Issuing commands to you units (especially individual commands) during the heat of the battle can be a bit difficult and may take a bit of practice to master. To that effect, the game does offer you an option to practice your Stage Battle skills with the game's A.I before you challenge others in the unforgiving world of online multiplayer gaming.

All in all this is one solid game and a must have for all music fans, especially Heavy Metal. For others, there is the prospect of exploring a well-crafted game world with unique art style. If none of these tickle your fancy, then you can count on the game's script that ensures there is never a dull moment.

THE SKOAR **!** **8**

Graphics.....7
Sound 10
Gameplay 6
Mojo 9

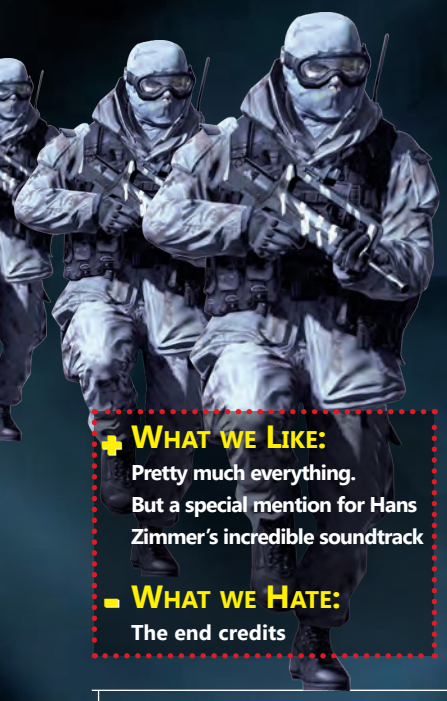
REALISM REDEFINED

MODERN WARFARE 2

MODERN WARFARE 2
Reviewer: Mihir Patkar
Genre: Action, Shooter
Platforms: Windows, Xbox 360, PS3
No of players: Single, Coop, Multi

Developer: Infinity Ward
Publisher: Activision, Square Enix
www.modernwarfare2.com

SYSTEM REQUIREMENT
OS: Windows XP, Vista and 7
Processor: Intel Pentium 4 3.2 GHz or AMD Athlon 64 3200+ processor or better | **RAM:** 1 GB
Graphics: 256 MB NVIDIA GeForce 6600GT, or ATI Radeon 1600XT
HDD: 12 GB free HDD space
Other: Microsoft DirectX(R) 9.0c | 100% DirectX 9.0c compatible sound card | Internet Connection required for activation



+ WHAT WE LIKE:
Pretty much everything.
But a special mention for Hans Zimmer's incredible soundtrack

- WHAT WE HATE:
The end credits

A COMPELLING EXPERIENCE

The storyline of Modern Warfare 2 picks up where the prequel left off, recapping the events in a title sequence. There is nothing spectacular in the plot, but it's still an imaginative take on how the next big war could happen: an American mass-murderer in Russia gives Kremlin the opportunity to go for an all-out war.

Over the course of the game, there are several plot twists, intriguing sub-plots and some amazing character-development. The player alternates between the role of US Army Ranger Pvt James Ramirez and an agent in a multinational special ops unit, named Sgt. Gary 'Roach' Sanderson. In your journey, you will meet popular characters from the first game – such as original 'Soap' MacTavish – and encounter interesting new ones like a covert agent who goes by the call-sign 'Ghost'.

The essentials of your objectives in the game are quite clichéd: proving America's innocence, finding the truth behind the entire war and administering justice. Yet, the way Infinity Ward has handled these tried-and-tested elements is what makes MW2 such a special treat.

WHAT? THAT'S NOT REAL!?

The lighting and smoke effects in the game have no parallel; from dim light to bright, everything looks just perfect. The snow-based levels even have spots that reflect the light harshly, causing a bit of snow blindness.

It's the attention to detail that grabs you in MW2. A soldier standing for a long time shifts weight from one foot to the other; when sneaking up on someone through bushes, the squad leader ahead of you slowly moves a fallen twig aside; and the blood splatter when you are hit by a bullet looks frighteningly real!

THE AIRPORT MASSACRE

Now, this isn't the first time that a terrorist act has been depicted on screen, or in a video game for that matter. And with games like Carmageddon and Grand Theft Auto, it's also not the first time you are killing civilians and cops.

What is different, though, is that when played from a first-person perspective with this amount of realism. It's your choice whether to shoot someone or not, and whether to put anyone out of their misery; but the level of realism that the graphics have achieved goes against the game here. It's almost like the Uncanny Valley effect.

THE SKOAR !

Graphics	9
Audio	10
Mojo	9
Gameplay	9
	9.5

SOUNDS GOOD

Infinity Ward went all-out in this department, hiring renowned multi-Oscar-winning composer Hans Zimmer for the game's soundtrack. A fast-paced score while battling multiple enemies in an urban slum makes you instinctively hold the button to sprint; flat, deep notes greet you when you are looking down the scope of a sniper rifle.

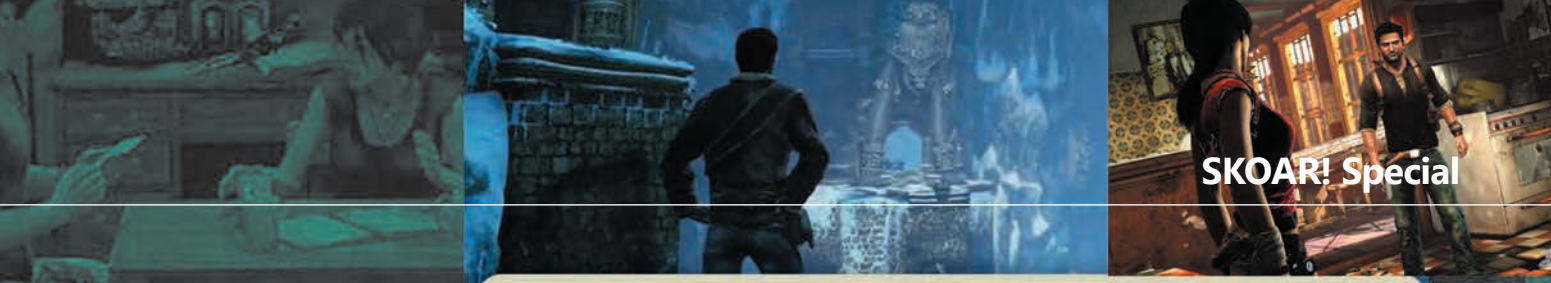
And yet, all of it is so wonderfully gelled into the background that it never dominates the gaming experience, and only adds to the ambience. The sound that comes from the gun you fire is just as important as the feel of the fun, and MW2 knows that.

FEELS JUST RIGHT

The 'feel' of a game is often talked about in reviews. It's an unquantifiable and largely inexplicable term, yet one of the most intuitive aspects that everyone understands easily. This appeal to a base instinct is a remarkable aspect of video games, one that is often experienced with music but not as often with cinema.

Modern Warfare 2 packs a punch. It delivers great highs and sombre lows; it gets you involved and makes you care; it challenges your skills and wit; and overall, it goes beyond being just a game. Play the game for its incredible bridging of cinema and games. Play it for its amazing action sequences and addictive gameplay. Play it for the incredible visuals and the inspired soundtrack.

But beyond all that, Modern Warfare 2 has a solid 'feel', and that alone makes it a game that no one should miss out on.



UNCHARTED 2 AMONG THIEVES

WORTHY of Honour

Uncharted

Reviewer: Faiyaz Shaikh
Genre: Action, Adventure
Platform: PlayStation 3
Developer: Naughty Dog
Publisher: Sony Computer Entertainment

Price:
PlayStation 3- INR 2,499/-

WHAT WE LIKE

- Great tracklist for Metal fans
- Captures the spirit of Metal mythos
- Good humor

WHAT WE HATE

- Less than satisfying game play
- Offers little to those who are not fans of metal music

Uncharted 2: Among Thieves is a follow-up release by Naughty Dog to 2007's runaway hit Uncharted: Drake's Fortune. Among Thieves does not add anything significantly different to the series—it continues to be everything that made the first game so much fun, only with a lot more polish. The visuals are slicker than the last time thanks to the use of smoother animation, coupled with improved lighting and physics. This game has all the elements you would expect to find in a typical summer action flick—a reluctant hero, camaraderie, betrayal, romance and some over-the-top set pieces.

This time around Nathan Drake is on the trail of Marco Polo's ill-fated return journey from China, in a quest to find the Chintamani Stone and discover the fabled city of Shambala. Joining Drake on his new adventure, are two new characters—Harry Flynn, a long time friend and his female associate Chloe Frazer. Making a comeback from the last outing are Elena Fisher and Drake's most trusted friend Victor "Sully" Sullivan. The game introduces a few more characters as the adventure will take you from Istanbul to the jungles of Borneo, from the urban streets of Nepal to the snow-capped Himalayan Mountains.

Drake's Fortune Endures

Just like in the first game, you'll be solving puzzles and scaling heights as you inch closer to your destination. For combat in the game, it retains cover-based shooting mechanism coupled with occasional melee bouts. Use of stealth in the game has been expanded over last time; however the system is anything but perfect— in fact it could use a lot of polishing. Everything else pretty much remains the same— which is actually a good thing in this case, since there





was not a lot in the first game that needed fixing. You can still carry only two weapons—a side-arm and a primary weapon—along with a limited number of grenades. Speaking of which, it has become a lot simpler in this game to use and control throw of a grenade. There is a decent variety of weapons in the game and certain set-pieces are designed tightly around usage of the right weapon. Platforming remains an integral part of the game, but this time expert use of dynamic camera angles gives it a more dramatic feel.

High tension, the constantly changing locations and often relentless action adds excitement to what would otherwise be a repetitive task of ducking and shooting. The more tranquil parts of the game that are spent solving puzzles and finding your way around, are nicely filled in with well directed cut-scenes and banter between the game's characters.

Last Action Hero

Just like an action movie this game requires suspension of disbelief in order to truly enjoy the roller-coaster ride that it offers. Stage and puzzle design sometimes seem a bit too convenient giving the impression that the ancients designed the place specifically for someone like Drake to access.

During gun-battles you will be up against what would otherwise be considered overwhelming odds. By the time you are done with the game you will have destroyed a decent sized well-armed battalion backed up with some heavy-duty firepower. So to get the best out of Uncharted 2, you'll probably have to suspend logical reasoning for about 10 – 12 hours it takes to finish the game.

Extra Booty

Earning medals by locating hidden treasures and achieving combat-related landmarks will bring greater reward this time around. Each time you earn a medal, the game rewards you with in-game dollars which can be used to unlock bonus content like concept art and behind-the-scenes videos. Majority of this reward will be spent unlocking character models, skins and weapons for the games multiplayer mode.

The most significant change in Uncharted 2 is the addition of multiplayer game modes—something that was completely absent in the first game. There are both co-operative and competitive game modes available for online play. Co-operative game mode supports a maximum of three players with missions similar to the ones you find in the single player campaign. The four competitive modes with a maximum limit of ten players are—Deathmatch, Plunder, Elimination and Chain Reaction. All four of them are essentially variation of traditional multiplayer games like capture-the-flag a nd last man standing.

Among Friends

.The multiplayer portion of the game is updated using content streaming method we often seen in an MMORPG. The game patch and





online updates collectively took a few attempts to execute and about 20 minutes to download. After logging on to the server, you have options to either join an existing public game or host a private game with gamers from your contact list.

We had little luck playing online— each time the game took a few minutes before finding an appropriate match. On a couple of occasions we were kicked out of the game right after it started. This could very well be a case of bad fortune since according to the server stats, there were over 70,000 users connected at that time.

After a few attempts we did manage to get into a game and stay there. The game selected for us by the server was a co-operative mode called Plunder, which is essentially capture the flag with ancient artifacts. We did not experience even the slightest lag during the 30-odd minutes we spent playing the game. Taking down enemies, rescuing you teammates and completing the game objective, all earns you experience points that goes towards increasing character level. Usage of certain weapons is restricted by the player's character level. Along with experience points, the game also rewards you with currency just like in the single player mode.

As bonus online features, the game allows you to save video grab of your online match on the PS3 hard drive and comes with built in support for Twitter.

X Marks the Spot

Overall Uncharted 2 is a fun-filled proposition; however, it not by far a perfect game. We noticed several issues with AI scripts of both the enemies and companions. On occasions we experienced game crashes and graphical errors. Also, the set-pieces are so tightly choreographed that once you have finished the game, playing it again on a higher difficulty adds very little to the challenge. However, this game comes highly recommended even if it is only for the 8- 10 hours of game play it offers. The game is a designing success due to well-spaced out sequences of gun battles, platforming and puzzle solving. Game-play is further supported by cut-scenes with the right kind of lighting, camera work voice acting and a fitting background score—all the drama you would expect from a Hollywood movie. If you own a PS3, this game should be on top of your must-buy list—Uncharted 2 is the reason for the season.

THE SKOAR !

Graphics	8
Audio	7
Mojo	7
Gameplay	9
	9



An Ancient Tale

Dragon Age: Origins
Review by Faiyaz Shaikh
Genre: RPG
Platforms: PC, Xbox 360, PS3
Number of players: 1

Developer: Bioware
Publisher: EA
dragonage.bioware.com

Origins introduces us to this universe through its denizens, their culture and their religion – to that effect the game deals with a phenomenon called the Blight. According to the religious beliefs of the humans of this world, their god, the Maker ruled the world from the Golden City. On behest of the Old Gods, the Tevinter Imperium laid siege to the Golden City in an attempt to usurp the Maker's throne. The siege was a failure but it left the city corrupted; so the Maker banished them for this transgression. Those corrupt are referred to as the Darkspawn and when they return in large numbers led by a corrupted Old God, you get the Blight. This is where an order of elite warriors called The Grey Wardens come in – a response to the threat. You, of course, play one of these wardens.

Be yourself; or not

You can choose from three archetype fantasy races – Human, Elf and Dwarf. Humans and Elves can choose between fighter, rogue or the mage class; whereas dwarves can choose either the fighter or the rogue class. In the Dragon Age universe, Dwarves do not get to be mages as they are racially resistant to the effects of Lyrium – the fuel of magic. After choosing your race and class during character creation, the process requires you to select your background story; which in turn determines the "Origins Story". Various combinations of race, class and background yields six unique origin stories.

The quest

The background and race selected during the character creation will determine your social standing in the game world. This subsequently affects disposition of the world towards you and will also offer a suitable starting point for your game.

A common thread connects the six unique Origins stories: each will invariably lead to an encounter with a veteran Grey Warden and your recruiter. Without spoiling the game for you, the main quest in the game is that as one of the few surviving Grey Wardens in the area, you need to garner support against the Blight from humans, elves and dwarves. There is no morality (alignment) system is Dragon Age; however you will face choices that can be placed within a spectrum of good and evil.

Hard to the core

The effort it must take to create a tactical combat system is quite evident with Dragon Age. Battle terrain plays a significant role in combat tactics, and









along with a combination of skills, talents and spells, the combat system offers a wide variety of options to form a winning strategy during hostile encounters. Spells use the caster's pool of magic energy (or mana) and they come with cool-down timers. Similarly, Talents also have a cool-down timer and they use the character's stamina instead of magic energy. There are also persistent spells and combat skills that reserve a certain amount of mana or stamina respectively.

Another layer of depth is added to the combat system through implementation of spell combinations. Casting spells in a certain order (or combination) will yield additional benefits, like increased damage. It is quite unlikely that you will be able to explore all these possibilities in a single play-through, so this works as an incentive to replay the game.

The specialised classes that you unlock are carried over to all subsequent play-through. This coupled with a better understanding of the game world, combat mechanics, and items, should help you create a stronger, more focused character build from an early stage. A word of caution – the game dictates a greater level of patience and investment of time that we are generally used to.

Some enemy encounters, especially tougher ones may require you to reload the game a few times to rethink your strategy and approach. To slightly digress: the game recorded my total play time at over 60 hours with only 40 percent of game completed! Levelling may thus be perceived as quite slow after the first four or five levels as after spending 60+ hours in the game, my character was just level 20.

This much can be said about the combat system in Dragon Age Origins: those who revel in a tactical approach to encounters will enjoy playing this game.

Origins is unlike any recent Bioware game when it comes to the game's mechanics; it's hardcore.

While the game comes quite close to delivering on its promise of old-school tactical combat; it disappoints on the story front.

New plot, same as the old

The one thing that stood out for me with Baldur's Gate 2 was its main plot – it was both personal and epic. Dragon Age can be summed up as clichéd. It offers the tired storyline of saving the world from imminent destruction. There are instances of déjà vu with the main story and it often feels like old wine in a new bottle. The developers have certainly experimented with presentation and have approached aspects that are RPG staple; the game feels refreshing at that. I believe that with role-playing games, what leaves a lasting impression is your *role* in the game world and how you fulfill that role or achieve your objective.

All the dialogues are spoken, so it spares you from reading reams of text. However, this is hampered by repetitive and irrelevant character animation during conversations. There also appears be to lack of variety with NPC models as you often encounter characters with striking resemblance to each other.

Technically the game is certainly an improvement for Bioware; however it is not without problems. There are a few quest related glitches and crashes that had me scouring through various discussion forums. The game patch and the official support forums were of little help; thankfully this was offset by active community based forums and wikis.

Conclusively, Dragon Age Origins is a pretty good game; however in its endeavor to succeed Baldur's Gate—it is a battle only half-won.

+ What we Like:
- Deep Combat System
- Variety of strategic options
- Improved party system

- What we Hate:
- Same old plot
- Frequent crashes

!System Requirements:
Minimum:
OS: Windows XP (SP3), Windows Vista (SP1), or Windows 7
CPU: Intel Core 2 SINGLE 1.6 GHz processor (or equivalent).
RAM: 1 GB (1.5 GB for Vista & Windows 7).
Disc Drive: DVD-ROM drive required.
Hard Drive: 20 GB HDD space.
Video: ATI Radeon x850 256 MB or greater, or NVIDIA GeForce 6600 GT 128 MB or greater.
Vista: Radeon X1550 256 MB; NVIDIA GeForce 7600 GT 256 MB
Sound: Direct X-compatible sound card.







THE SKOAR 8

Graphics.....8
Audio 7
Mojo 7
Gameplay 9



Ninja Gaiden Sigma 2 Review

Reviewer: Faiyaz Shaikh
Genre: Action, Beat-em Up
Platform: PlayStation 3
Developer: Team Ninja
Publisher: Tecmo, Tecmo Koei

Price:
PlayStation 3- INR 2,799/-

WHAT WE LIKE

- Plenty of content
- Good replay value
- Rebalanced difficulty

WHAT WE HATE

- Recycled plot
- Poor voice acting and script

Hack, Slash, Rehashed

Tomonobu Itagaki has left the building and yet the show must go on. What's left of Tecmo's Team Ninja studio have gotten together to develop Ninja Gaiden Sigma 2 for the PlayStation 3 console. As most of you might have expected, Itagaki's departure has had a significant effect on some of the key elements of the game.

The Two Nin

You can either look at this game as a sequel to Ninja Gaiden Sigma, which was released on the PS3 in 2007 or you could call it as a port of Ninja Gaiden 2, an Xbox 360 exclusive released in June 2008. Whichever way you look at it, Ninja Gaiden on the PlayStation 3 is a very different beast compared to its Xbox version.

Even though the game retains the dismembering Obliteration moves from Ninja Gaiden 2, blood is a rare sight in this game. Most enemies (like Spider Ninjas) bleed some kind of glowing liquid of various hues while others have green blood or oil oozing out of their corpses. Overall, gore in the game has been drastically toned down.

Additionally, veterans of Ninja Gaiden on the Xbox will find Sigma 2 far easier to beat— almost a walk in the park. Enemy encounters in a chapter (or level) have been reduced and the number of enemies you find at a time on the screen is also low. In spite of more bosses in the game, the battles themselves are far easier to win as the damage done by the player is greater and no longer dependant on which body part is hit.

Ninja Dog

Playing on "Warrior" difficult level, which is the highest available during the first play-through, I was able to breeze through the first eight or nine chapters without the need to cast Nimpo (magic) or purchase any healing items. In fact, Nimpo feels more like an added luxury rather than an essential strategic addition to your arsenal as one can beat the game without ever casting Nimpo.

Ninja Gaiden games have always been reputed to be a difficult game to play, let alone master it and that has made it, to a certain extent, an elitist game. With rebalanced difficultly more people should be able to enjoy the awesomeness that is Ninja Gaiden since the game still retains its tight combat mechanics.







WMD

Ryu's weapons stash has changed a bit compared to Ninja Gaiden 2. There are two ranged weapons available including a new one called Howling Cannon. All other ranged weapons from the Xbox360 version have been left out. Simple shurikens are permanently mapped to a button on the gamepad and always available to be thrown in conjunction with any of the other two ranged weapons.

On the other hand, all melee weapons have been retained and additionally Dabilahro makes a comeback in its new avatar of Enma's Fang. Upgrading weapons does not cost anything in this version, but it is tightly controlled. Not all Muramasa shops will have the option of upgrading weapons and the upgrade level is locked with progress of the game.

From the Dojo of Colossal Bosoms

Rachel, the demon huntress from the first Sigma game makes a comeback as a playable character. Joining forces with her are two other familiar maidens—the ninja Ayane and the shrine maiden Momiji. They each come with their exclusive arsenal— a melee weapon, a ranged weapon and a Nimpo power— along with the infamous Sixaxis Support.

There is also one level dedicated to each of the three characters, woven into the main storyline. Once you have finished these chapters, that particular character becomes available for the multiplayer co-op mode. These female characters may appear to be frail and even vain; however they are well designed and can easily hold their own against the enemy horde.

Master Ninja

Visually the game appears to be an improvement over the X360 version. It justifies the 3GB+ installation with visibly improved frame rate. The game can also output graphics at full HD resolution (1080p), something that is not very common on the PlayStation 3. Also, textures appear to be of higher quality and the colors are more vivid. On the flipside however, there are stray issues with collision detection while in combat.

Feat of Hundred Slashes

If you have not played Ninja Gaiden before, mainly due to the challenging combat, we would suggest giving this one a go. Even though this game is not as simple as most of the other beat- 'em ups, Sigma 2 has been rebalanced to favor the player.

Relatively speaking, the game also packs a lot of content— for a first timer, the single player campaign can take about ten hours to complete. After you've done that there are "Chapter Challenge" and "Team Mission" modes to keep you busy for another few hours. At the end of all this, if you are feeling cocky you could attempt to beat the game at Mentor and subsequently Master difficultly—not a simple task by any means.
If you like collecting game trophies, there are trophies for mastering all four playable characters, their weapons, Nimpo and even some special moves.

Ninja Gaiden is one of the best action game series ever made and if you are apprehensive about investing in this one, you should at least try the demo of Sigma 2 which is available on the PSN store—you may be pleasantly surprised.

THE SKOAR! 8

Graphic 8
Sound 6
Gameplay 9
Mojo 7