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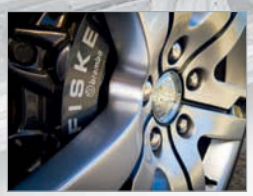












editor's letter



An impressive rebirth

For a company that has so often struggled to get the attention of buyers more inclined to shop for other smartphones, Blackberry definitely breaks new ground with the new Z10. The device's blend of solid construction, good looks, and a genuine UI breakthrough will definitely resonate with those who are looking for a smartphone with productivity in mind.

The Z10 gets a welcome infusion of new hardware, too. But if there's one thing that Blackberry has done emphatically well this time around, it is to take the discussion firmly away from specs and benchmarks. The Z10 plays to its strength of having a highly integrated OS and hardware development cycle, and its fluid and silky smooth UI is such a pleasure to use that the gestures and butter smooth swipes can get very addictive after a while. From a pure usability point of view, this is integrated smartphone development at its absolute best, on par with the iPhone I'd dare say.

> It would be unfortunate if this release is more widely remembered for what it didn't offer than for what it did get right.

Out of the many features launched as part of the BB10 release, the Hub is easily my favourite. A lot of has been written about it, but nothing can prepare you for the 'wow' moment when you first encounter it. It takes just a few gestures to get used to, making it one of the most intuitive UI improvements in recent times. The Hub is quite revolutionary yet so simple in its concept. We need a feature like the permanent "start menu" that's just one simple gesture away in the "mass communication" times we live in. Every single piece of communication is accessible and actionable through the Hub. This is a big UI win for Blackberry, and makes for super-fast navigation through the flood of messages we all experience in our daily lives. The quick learning keyboard is quite an upgrade too; it intelligently predicts words based on your style of writing, and predictive text has been very neatly integrated into the keyboard as well.

Another impressive feature is its ability to keep apps in check (only 8 active apps), which probably improves battery life too, because I managed to eke out 16 hours of active use! Truth is, as a pure communication work-tool, the Z10 really excels, and if that's primarily what you're looking for, then the device is definitely a very strong contender.

However, there are two issues that Blackberry needs to work on very aggressively now. First, they need to quickly get the app store, BlackBerry World, up to speed—it's still nowhere near as well fleshed out as its rivals' markets. And second, they must continuously spin the OS refinement wheel by ironing out bugs (and there are many!) with a set of rapid updates and patches. Because it would be really unfortunate if this Blackberry release is more widely remembered for what it didn't offer than for what it did get right.

Hatim Kantawalla

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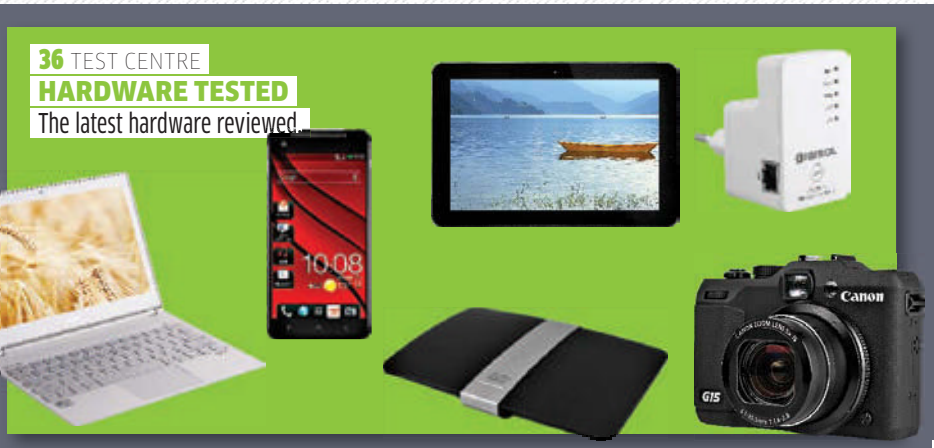


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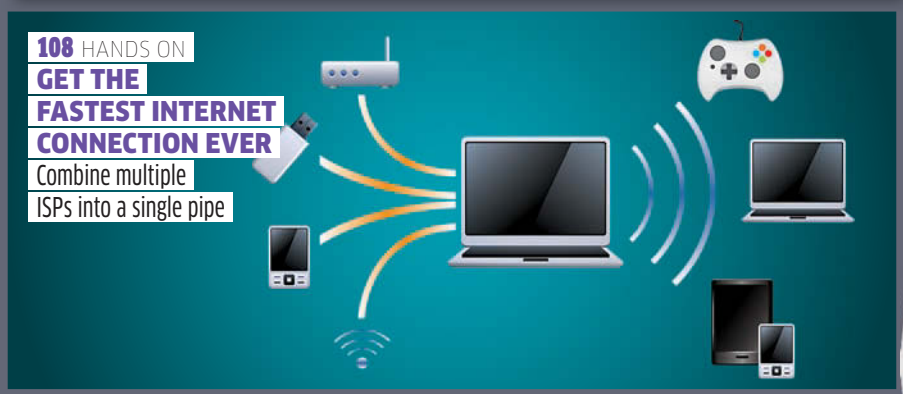
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CHIP INTERNATIONAL: Editorial Consultant International - **Thomas Pyczak**, Poccistrabe 11, 80336 Munchen

CHIP is also published in the following countries: China, Czech Republic, Germany, Greece, Hungary, Indonesia, Italy, Malaysia, Netherlands, Poland, Romania, Russia, Singapore, Thailand, Turkey, Ukraine

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Published by Lakshmi Narasimhan and printed by Mohan Gajria on behalf of Network18
Editor: Lakshmi Narasimhan
Printed at Infomedia18 Ltd., Plot No. 3, Sector No. 7, Off Sion-Panvel Road, Nerul, Navi Mumbai 706 & published at Network18, 'A' Wing, Ruby House, J.K. Sawant Marg, Dadar (W), Mumbai 28.
For all international subscription enquiries, contact the Subscription Department, Intelligent Computing CHIP
All editorial queries must be directed to the Editor, Intelligent Computing CHIP, Network18, Special Interest Publications Division, 'A' Wing, Ruby House, JK Sawant Marg, Dadar West, Mumbai 28 Tel: (91 22) 30034631-35; Fax: (91 22) 30034499, Email: editor@chip.in
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Rethinking Piracy

LETTER OF THE MONTH



Sachin Pandit

Hi CHIP,

First of all hats off to you guys for transforming India. I started reading CHIP in my college days in 2007 and I can happily say this was the only reason I visited my college library. Now I read CHIP at the library at work. This letter is with regard to the article published in Jan 2013 edition, "Can iTunes Stop Piracy". I have just turned 23, but I also used to buy cassettes. Vividh Bharati, Sunday Morning Rangoli and Chitrahaar were the hit shows. Now, cassette shops are being replaced by sites like songspk.pk. The youth has to play the lead role in curbing piracy but it is initiated by this generation. Even a 4-5th standard kid knows what songspk.pk is. We are moulded to take shortcuts in all ways, whether it's traffic or downloading a song.

People in India don't fear the government, so why would they pay for audio/software? The will to curb piracy is not strong. In cities like Delhi also, illiterate people buy flashy phones and use them only for talking and listening to songs or watching movies. They approach local shops which copy their choice of songs on an SD card. The average rate for getting a 2GB card filled is Rs 50. Sometimes, the police catches them and only then do they realise that they were committing a crime. I say that the best way to stop piracy is to legalise it. The government should create a few official sites where people can easily download all songs for just Re 1 each or force users to click on two ads before downloading a song. A rich GUI and easy processing (not like IRCTC) could work out. The government can also earn from ads. Don't compare India to US. Here the apex court bans songs.pk one day and the next day it changes its domain to songspk.pk.

- LOVE GUPTA

Hi Love,

You've raised a number of interesting points. We don't think the government is interested in entering the online retail business, but the general idea is valid. It would still need the support of copyright holders and music publishers around the world, most of whom would prefer to maintain their control over pricing.

- TEAM CHIP

Stay safe online

Dear CHIP,

I am a first year computer engineering student and I've been reading CHIP right from Class 6! Over the years, computing has transformed by leaps and bounds. Cloud services like Dropbox, social networking sites such as Facebook, touchscreen technology and free lectures from universities like Harvard and MIT have changed the way we use computers. And CHIP just enhances the experience by offering unbiased product reviews and a good collection of bundled software on the DVD.

I recently read your February issue cover story about how smartphones and tablets can be misused by hackers. Apart from this, I think social networking sites are also being used extensively by criminals and it is vital to use appropriate privacy settings and be responsible about what we post or share to the general public. Although social networking does help to socialise with your friends to an extent, people usually procrastinate on these websites. Having a large number of so-called "friends" is considered a great achievement even though most of the "friends" could be strangers and you never really speak with them in real life. The average user does not have the slightest idea about the pitfalls of adding strangers to your friend list.

In a city, when you walk around, you don't know whether the person next to you is a criminal or a common man. In the context of social networking, it is essential to be on the safe side and adopt preventive measures to protect your account. A stranger in your friends list can steal your identity and misuse the information. The majority of users have no idea about the plethora of privacy and security options these sites offer. Hence, I feel it is imperative to use such sites responsibly.

- SUSHRUT GIRDHARI

Hi Sushrut

We couldn't agree more with your assessment of attitudes when it comes to online safety. We encourage all readers to go through the privacy and security options offered by the services they use. Facebook has recently made it much easier to see how much of your information is visible to other people, which is a step in the right direction.

- TEAM CHIP

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Finally, send your messages to **51818**. Cheers!

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Tough sacrifices

Dear CHIP,

I am an avid reader of your magazine. I am a class 10 student of ICSE and I am preparing for my boards this March. This will be the most awful month since I won't be be able to read your magazine till the 20th! I am glad that I read CHIP since it is a great source of information and news about the tech world and keeps me up to date. I especially like Insider as it gives me reviews of the latest games on different platforms. One thing that stings me the most is there is no love for Windows Phone. I currently use a Lumia 900 and am upgrading to a Lumia 820 after my exams. I really love this platform and I don't know why you don't review Windows Phone apps.

You guys have truly drilled respect in my heart for yourselves for the hard work you all do in publishing this magazine every month. Best wishes,

- AKASH SHARMA

Dear Akash,

We wish you the best of luck for your exams and hope this issue is worth the wait for you! We have no bias against Windows Phone or any platform, but space constraints and the relative popularity of the various available platforms result in a higher demand for Android and iOS apps. Many of the apps we review are available on multiple platforms, which we'll do a better job of highlighting in the future.

- TEAM CHIP

Ads everywhere

Dear CHIP,

I am an avid reader of your magazine and a great fan of yours. This is the first time I am writing to you, and I know that only you will have the answer to this question. Recently, Microsoft launched an attack on Google claiming that Google reads the mails of Gmail users for the purpose of advertising, thus violating their privacy. In response, Google stated that an automatic algorithm reads emails, not humans. Since Gmail has millions of users worldwide, how would they be able to read all the emails? Both companies are leaders in the IT world. I would like you to state your views on this topic.

- RUDRA ZADU

Hi Rudra,

Google has been clear about its advertising policies since Gmail was launched. Ads are displayed based on keywords detected automatically in messages. This applies to all users. Google's servers are powerful enough to search through the millions of messages they handle each day. This is not new and users seemed to accept it without complaint, especially since Gmail was far superior to competing services at the time it launched. Microsoft now wants to highlight that its new Outlook.com service doesn't go through personal email.

- TEAM CHIP

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1. **Place of Publication:** Ruby House, 'A' Wing, JK Sawant Marg, Dadar (West), Mumbai-400028.
2. **Periodicity of Publication:** Monthly
3. **Printer's Name:** Mr. Mohan Gajria
   Nationality: Indian
   Address: Ruby House, 'A' Wing, JK Sawant Marg, Dadar (West), Mumbai-400028.
4. **Publisher's name:** Mr. Lakshmi Narasimhan
   Nationality: Indian
   Address: Ruby House, 'A' Wing, JK Sawant Marg, Dadar (West), Mumbai-400028.
5. **Editor's Name:** Mr. Hatim Kantawalla
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6. Names and addresses of individuals who own the newspaper & partners or shareholders holding more than 1% of the total capital: Network 18 Media & Investments Limited** is the owner of the publication namely Intelligent Computing CHIP, having its registered office at 503, 504 & 507, 5th Floor, Mercantile House, 15, K. G. Marg, New Delhi - 110 001

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Dated: 20th February 2013

Lakshmi Narasimhan
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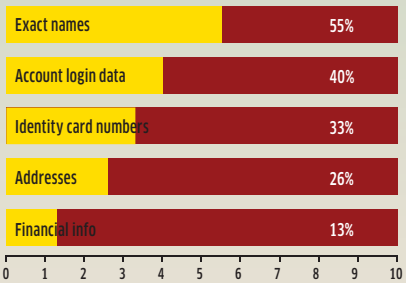
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DANGER PREDICTION



Increasingly sophisticated attacks target specific individuals and companies; not only through their PCs but also through smartphones and other gadgets.

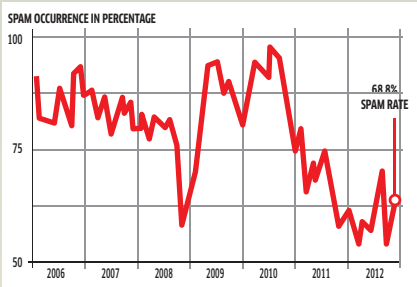
WHAT HACKERS STEAL



In typical cases of data theft, the attackers obtain victims' names and account information.

SOURCE: SYMANTEC

SPAM AT THE ROCK BOTTOM



The worldwide occurrence of spam is continuously falling. The percentage of unsolicited commercials has been falling particularly since August 2010. While spam was above 91 percent around the world at that time, it is only 69 percent of all emails today.

SOURCE: SYMANTEC

FIGURE OF THE MONTH

11%

of all smartphone users store their credit card number directly on their mobile devices.

IN THE NEWS...

COMPILED BY **JAMSHED AVARI**

SECURITY

Chinese military accused of hacking into US news outlets, stealing intelligence and corporate secrets


The New York Times
Business Day
Technology
WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION
Chinese Army Unit Is Seen as Tied to Hacking Against U.S.


The Washington Post
Politics Opinions Local Sports National World Business
Technology
Policy Gadget Reviews Green Technology Photo Galleries
Parties begin blame game as sequester nears
Life moves fast in the casino world
Chinese hackers suspected in attack on The Post's computers
The Washington Post

The New York Times has published the findings of a report by security firm Mandiant, alleging that large-scale hacks perpetrated against the Times originated from a Chinese military facility, thus suggesting that the attacks were government-sponsored. The newspaper says that attackers were looking for information regarding the sources of its articles probing the finances of Chinese Prime Minister Wen Jiabao.

The New York Times isn't the only news outfit to have been attacked: both the Washington Post and the Wall Street Journal have also confirmed that their internal systems were attacked, and that the perpetrators were highly sophisticated but could be traced to China. All three publications say they are aware of Chinese interest in monitoring and identifying the sources of news related to China.

The Mandiant report, highlights of which are published at intelreport.mandiant.com, identifies a specific building in a Shanghai military facility from which the attacks originated and concludes that they involved dozens if not hundreds of individuals. Chinese officials have responded to the three news outfits, dismissing the allegations and stating that digital attacks are not sanctioned by the Chinese army or government.

WEB

Pirate Bay sues copyright group over copycat site


Piraattilahti

The Pirate Bay has launched legal proceedings in Finland against an anti-piracy group that has ripped off its masthead and site design as part of an anti-piracy campaign. The Pirate Bay "recognises the irony of the case", according to watchdog site TorrentFreak, and is intent on pursuing the legal rights it is entitled to under Finnish law. The group in question, CIAPC, is best known for harassing a nine-year-old girl and her family for unknowingly downloading a single track. The Pirate Bay has pledged any money they win to the girl, calling CIAPC an "ugly bully without friends." The case will be a test of the police's objectivity, according to a Finnish Electronic Frontier Foundation spokesperson quoted by TorrentFreak.

SMS us! > Story code: NSN to 51818

GADGETS

Apple, Samsung rumoured to be working on smart watches

Apple is rumoured to be preparing a "smart watch", with at least 100 engineers and marketers assigned to the project. The device could be a wireless iPhone accessory or a standalone device similar to the previous-generation iPod nano. Both the New York Times and the Wall Street Journal have reported on the possible development. The watch might be made of curved glass. Apple, as usual, has not commented on reports of unannounced products. Meanwhile, screenshots of a Samsung product known as the Galaxy Altius indicate a new product with a small, square screen and prominent clock face. The screenshots reveal indicators or shortcuts to messaging, maps and music applications. A horizontal scrolling mechanism also indicates that the device is controlled by a touchscreen. It is not known whether this would be an accessory or self-contained device. Sony and Motorola have experimented with watch-shaped accessories in the past. Over 68,000 people contributed over US$ 10 million to the independent Kickstarter-funded Pebble smart watch, which is now available for preorders, demonstrating a significant interest in the category.



SOFTWARE

Ubuntu unveils its tablet strategy; preview soon but no launch till 2014

Hot on the heels of Ubuntu for phones, Canonical has shown off a version of the popular Linux distribution designed specifically for tablets. The announcement completes a family of Ubuntu operating systems for phones, tablets, PCs and TVs. The demo was run on a Nexus 7 tablet, and a downloadable preview is also available, although commercial products are unlikely to be available until after Ubuntu phones launch in mid-2014. Canonical promises that apps designed for Ubuntu will work across all four device categories—and as an added twist, tablets and PCs will have the ability to run multiple phone-sized apps side by side. The company is focusing on Ubuntu's multitasking abilities, multiple user accounts, voice control, and customisations available to carriers and ODM customers.



GADGETS

HP to give Android a shot

HP, which hasn't had a smartphone or tablet in its lineup since cancelling the entire WebOS family, has reportedly decided to re-enter the market with a line of Android devices. The company's first attempt will be a premium tablet powered by Nvidia's recently announced Tegra 4 CPU, with smartphones following next year. If the project does go ahead, HP will have to compete with a number of rivals, including Apple and Samsung, who have been selling tablets for years. No launch date or other specifications are known yet.

SOFTWARE

Opera to use WebKit engine

Opera, one of the oldest Web browsers around, will switch from its own Presto rendering engine to WebKit, which currently powers Chrome and Safari, making it the most commonly used engine in the world. WebKit browsers across platforms hold 40 percent of the browser market share, according to StatCounter. The move strengthens WebKit as a de facto Web standard, much like Internet Explorer was at the height of its popularity. Pages and web apps designed for WebKit will have broad support across desktop browsers and mobile platforms, including iOS, BBOS 10, Android and Tizen. Opera will also contribute to WebKit development.

HARDWARE

Intel could kill off its Itanium line

Intel has cancelled plans to migrate its high-performance server-oriented Itanium CPU line to a smaller manufacturing process and use the same socket its Xeon chips use. The next generation Itanium will now remain a 32nm part and use a non-compatible socket. A shift to 28nm would have reduced power draw and lowered heat dissipation. The news could discourage upgrades in preparation for ending the Itanium line. Oracle recently indicated it would stop supporting the architecture, significantly reducing demand for it. Itanium was developed with HP for enterprise servers.

GADGETS

Evasi0n jailbreak used 7m times

The Evasi0n jailbreak for iOS 6.0 and 6.1 has turned out to be the most popular in history, with the team that released it estimating 7 million downloads in the first four days of its release. Evasi0n is an untethered jailbreak for iOS 6, the iPhone 5 and iPad mini. Previous efforts to circumvent Apple's security on the devices had not borne fruit. The Evasi0n team deliberately delayed release of the jailbreak tool until iOS 6.1 was released in order to prevent Apple from being able to patch it. Interest in jailbreaking was thought to be declining due to its increasing complexity and the growing maturity of iOS, but the response to Evasi0n has disproved this.

SECURITY

NEW SECURITY RISKS DETECTED AND PATCHED



JAVASCRIPT

Sophos reports that 80 percent of sites hosting malicious JavaScript are non-malicious sites that have been hacked. Harmful code is embedded within these sites' JavaScript, thus making detection difficult and unreliable.

SOLUTION: Website owners are advised to update to the latest versions of jQuery and other tools to make sure known vulnerabilities are patched.

MICROSOFT INTERNET EXPLORER

A vulnerability in the implementation of Vector Markup Language (VML) could allow attackers to use a specially crafted Web page to execute code on a remote PC at the same rights level as the logged-in user.

SOLUTION: A patch has already been delivered via automatic update. Others are advised to manually install the latest security patches.

UPNP

The Universal Plug n Play protocol, designed to let devices change your firewall's configuration, has been misused by attackers for years. Now, 10 new holes have been discovered that make 23 million Internet-connected devices vulnerable to remote takeovers.

SOLUTION: Manufacturers of the 6,900 affected product models will need to issue firmware updates or the devices will need to be replaced.

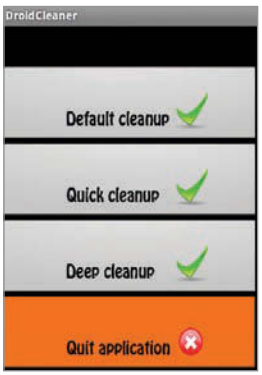
ADOBE PDF

Manipulated DLLs that install a remote backdoor, allowing attackers to take over a PC can be hidden inside a PDF.

SOLUTION: A patch is not yet available.

SECURITY

Google Play Store allows apps that steal personal data and passwords



Malicious apps masquerading as system optimisers are getting through Google's security protocols. Two samples detected by McAfee called DroidCleaner and SuperClean claim to make your device faster by optimising settings and clearing caches. Both apps display fake progress bars while they steal SMSes, photos, contacts, files, GPS coordinates and your IMEI and phone number. They can also be used to allow attackers to execute commands remotely. More importantly, the malware can later be used to attempt to steal passwords by throwing up fake login pages on infected devices. The malware has been seen attempting to steal Dropbox and Google credentials, though other services could be targeted just as easily. Any user name and password typed into this page will be sent to the remote attacker while the user sees only an error message.

SECURITY

Apple, FB disclose targeted attacks

Apple and Facebook have both released statements publicising that they were victims of large-scale targeted attacks. Both were likely targeted by the same person or group. The attacks used a "watering hole" approach, infecting the popular iPhoneDevSDK site with malware that uses a known vulnerability in Oracle's Java plug-in. The malware was specifically written to target machines owned by the two companies, and possibly others who have not yet stepped forward. Facebook says no user data was compromised, while Apple says no data of any sort left the company. The exact motive for the attacks remains unknown.

SECURITY

Attackers could turn your home automation gadgets into weapons

A hacker who goes by the name Daniel B has demonstrated how a seemingly innocuous home automation product can be turned into a potentially lethal weapon. The Belkin WeMo, an Internet-connected electric outlet was designed to allow users to turn devices on and off via their smartphones, and also to check whether dangerous appliances have been left on by accident. Daniel B has posted a video to YouTube detailing how he managed to gain root access to a WeMo device and switch it on and off rapidly enough to cause appliances such as coffee makers to become dangerous. He postulates that malware could soon start scanning home networks for such devices and infect them, granting remote access to any attacker. Someone with malicious intent could then use the capability to start fires, or at least destroy electric appliances.



SECURITY

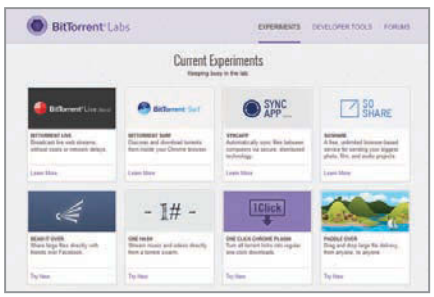
Webcam scams thriving in Asia

Sophos reports that a number of men in Singapore have recently been blackmailed after stripping and performing sexual acts on webcams, after women they met online turned out to be working in collusion with scammers. The women in question initiate steamy webcam sessions after befriending single men on Facebook and dating sites, but the men find out they were recorded in the act only after receiving threats that photos and videos of them will be circulated unless they pay up. The Singapore Police Force has issued an advisory to the public and asked people to be wary of strangers online. Local news channels have also covered the spate of incidents.

WEB

BitTorrent uses new tools to help its reputation

BitTorrent, the firm often held responsible for piracy committed using its eponymous file-sharing technology, is busy trying to create new products that could create more favourable associations with its name. The recently launched BitTorrent Labs (labs.bittorrent.com) website hosts projects and allows anyone to contribute to their development or build new products and services based on them. The most recently announced experiments are Sync, designed to help users sync large files between their computers in different locations without any fuss or pain, and SoShare, which lets users share large files via email as if they were attachments. Other projects include tools for sharing files via Facebook, hosting Web streams, and tools for discovering content and controlling downloads.



BUZZ LIST

COMPILED BY **JAMSHED AVARI**

The simple lowdown on what everyone's talking about this month.

SOFTWARE

Microsoft inadvertently announces "Windows Blue"



Job postings by Microsoft on its own website describe Windows Blue as a product that builds upon and improves Windows 8's "core experience features," including the "Start screen, application life cycle, windowing and personalization." One of the postings referred to Windows Blue while the other specified Windows Phone Blue. Both have since been removed from Microsoft's website. "Blue" was initially thought to be the codename for a strategy of mid-lifecycle refreshes of Windows 8 across all platforms, much like mobile device manufacturers currently do. Microsoft has indicated that it will release yearly updates to all its products including Windows Server, Office, and web properties such as SkyDrive and Outlook.com, rather than release major new versions every few years. It isn't known if the company will change its version naming schemes or how these updates will be priced and released.

WEB

Intel confirms TV service plans

A top Intel exec has confirmed that the chipmaker will launch an Internet-based TV set-top box that will be sold directly to consumers. Intel Media vice president Erik Huggers has gone on record to describe the device, long rumoured to be in the works. The company plans to turn existing models of TV service on their head by allowing users to tune in to live broadcasts as well as order individual past episodes on demand. The features apply only to the US as of now—Intel has not discussed plans to adapt the device to local markets, which operate very differently. The box will obviously be based on Intel hardware; most likely a successor to the Atom-based CE4100 SoC that was aimed at consumer electronics. The only detail disclosed is that the set-top box will come with a camera that will detect who is currently controlling the TV. Ultimately, the product's success will depend on content owners and studios, without whom there would be nothing to watch.



BUSINESS

Google to open retail stores?



Google is reportedly set to follow Microsoft in opening its own retail stores modeled on Apple's successful practice, which allows buyers to experience products hands-on before making a purchase decision. The first such stores will open over the course of this year across the US, and will stock the company's Nexus products and accessories, along with phones, tablets and Chromebooks built by various partner manufacturers. The stores could become important for Motorola, which is now owned by Google, as well as for the upcoming augmented reality product, Google Glass. Google already places branded kiosks inside large-format retail chain stores. Although initially criticised by analysts, Apple's move to open retail stores has been one of its most profitable decisions. Customers can try products and get technical help or training.

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NEW PRODUCTS LAUNCHED

COMPILED BY **JAMSHED AVARI**

MAPMYINDIA

Portable nagivation device



MapmyIndia has launched a portable in-car navigation and entertainment device, the Lx340. It comes with a 4.3-inch touchscreen, and its body has a matte-black finish. It also has entertainment features for playing music, movies and photos on the go. The mapping is powered by Don't Panic–a new, fast, smart and easy to use GPS navigation software interface powered by India's best 3D and house-level maps from MapmyIndia. The Lx340 navigator has no recurring usage charges and no dependence on Internet and mobile network for navigation. MapmyIndia Lx340 features India's best, richest, most accurate, detailed, comprehensive and updated maps and door-to-door navigation in 39 cities; 7.08 million points-of-interest across various categories; 4,551 cities at street level with localities, streets and landmarks; 5,79,000 towns and villages connected by a complete highway network across India; 3D landmarks across India and 2D building footprints across 36 cities.

PRICE: Rs 8990
WEBSITE: www.mapmyindia.com

THERMALTAKE

Attractive gaming case



Thermaltake has introduced the new Chaser A31 case for gamers and enthusiasts. The chassis delivers cooling, performance and is expandable. It comes in three dynamic colours: classy black, snow white, and thunder blue. The Chaser A31 has an e-sports appearance. The transparent windowed panel offers the best view for built systems. Since gaming hardware produces a lot of heat, this enclosure is built for maximum cooling with a perforated front bezel with two 120 mm fans at the front and rear. The series features up to four USB ports, including two USB 3.0 SuperSpeed ports on the front panel for faster data transfer and easy access. The Chaser A31 comes with a user-friendly tray on top for portable devices. It is designed for easy cable routing behind the motherboard tray to ensure smooth building, reduce tangles, and improve airflow.

PRICE: NA
WEBSITE: www.thermaltake.com

AVERMEDIA

Portable game recorder



AverMedia has announced Live Gamer Portable, a stylish palm-sized USB box for recording and streaming HD gameplay for both gaming PCs and consoles. Live Gamer Portable features wide connectivity, hardware compression, and an intuitive user interface. As it doesn't need a power outlet, it provides the option of PC-free mode with SD card storage. It allows easy gameplay sharing at home, friends' places, in competition venues and wherever you play. Live Gamer Portable is a compact device supporting video input up to 1080p@60Hz. Its HDMI and component inputs as well as wide resolution support make it applicable for most gaming platforms, including desktop, laptop, Xbox 360, PS3 and Wii U. Its on-board H.264 hardware encoder guarantees lower CPU usage and stable frame rates even while recording and streaming.

PRICE: NA
WEBSITE: www.avermedia.com

ACER

All-in-one PC



Acer India has launched its Aspire Z series. Over the last few years, the desktop PC segment has evolved to a new space-saving form factor that offers multi-functional usage. Acer's Z series offers consumers an immersive entertainment experience and is ideal for home and office users craving a compact performance-packed device. Designed to work on Windows 8, powered by 3rd generation Intel Pentium processors and combined with advanced graphics features, this sleek All-in-One desktop delivers excellent performance and can handle demanding tasks. In its sleek form factor, Acer's new All-in-One PC also features an enhanced cooling design to prevent the PC from

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The products and services listed here have not been reviewed by IC-CHIP. These are not endorsements or recommendations. All prices, specifications and claims are as stated by the respective manufacturers and publicists.

overheating. Fitted with a 21.5" LED LCD full HD widescreen with a 16:9 aspect ratio and 1920 x 1080 native resolution, Acer's Aspire Z series delivers exceptional image quality.

PRICE: Rs 29,990 (starting)
WEBSITE: www.acer.com

HUAWEI

Android smartphone

Huawei has launched the Ascend G600 smartphone, running Android 4.0 with an 8-megapixel BSI auto focus (AF) camera and dual-DTS SRS speakers. The Ascend G600 includes features that aim to improve peoples' mobile phone experiences, everyday. The 4.5-inch LCD IPS QHD display with 960 x 540 pixel resolution and Corning Gorilla Glass brings unsurpassed visual clarity. Powered by a 1.2GHz dual-core CPU with industry-leading 1930mAh Li-Polymer battery, the Huawei Ascend G600 is super fast speed and can be fully charged very quickly, powered on in five seconds, and provides more than 15 days of standby time. The Huawei Ascend G600 offers more connectivity and file sharing with Wi-Fi Direct, Bluetooth and DLNA. Its 768MB RAM and 4GB of onboard storage can be supplemented with MicroUSB 2.0 and microSD cards up to 32GB.



PRICE: Rs 14,990
WEBSITE: www.huaweidevice.co.in

JABRA

Bluetooth speakerphone

Jabra has announced the SPEAK 510 Speakerphone with Bluetooth. Using



plug-and-play connectivity, Jabra SPEAK 510 makes sure that the user is just seconds away from virtual meetings and hands-free conversations. It can be connected via Bluetooth to the PC, tablet or smartphone. Jabra SPEAK 510 is designed for professionals with an everyday need for audio conferencing or hands-free calls. It functions as a light-weight audio device with its compact design and convenient travel case and 15 hours of battery to keep the conversation alive. The crystal-clear omni-directional microphone means attendees all around the speakerphone can hear and speak clearly, making it ideal for one-to-one and smaller group conference calls. SPEAK 510 offers wireless connection to PC, tablets and Bluetooth-enabled mobile phones and headsets with up to a 100 meter range for Class 1 devices.

PRICE: Rs 11,000
WEBSITE: www.jabra.com

ASUS

Zen-inspired DVD-RW

ASUS has launched the SDRW-08D3S-U, an external slim DVD writer compatible with smart TVs and pads. Its Zen-inspired design sets it apart from generic drives as it delivers optical media convenience, just as the slender 20mm profile and 365g weight factor allow it to integrate into any home entertainment center as well as complement portable devices. This DVD writer can be used with Ultrabooks/ netbooks. The DVD writer instantly switches to AV Mode with one press for playing content with more devices. The AV center's live demo function also ensures multimedia entertainment. The ASUS SDRW-08D3S-U also has a Drag-and-Burn friendly interface with only three simple steps to burn a disc, making the process easier than ever. One of the major features is Double the Security On-the-Go Disc Encryption II, which doubles the security with password-control and hidden-file name functionality.



PRICE: Rs 3,500
WEBSITE: www.asus.com

SPICE

Android smartphone



S Mobility Limited has launched the all new Stellar Pinnacle Mi-530 with a 5.3 inch qHD IPS display. Stellar Pinnacle Mi-530, an Android 4.0 Ice Cream Sandwich (upgradeable to Jelly Bean) smartphone, is a stylish yet powerful device which comes with a 1.2GHz dual-core processor for all your media and applications. It has a 13.46 cm qHD screen, offering a rich viewing experience. The phone packs an 8 megapixel autofocus camera that has many advanced modes such as panorama, face beautification and continuous shots up to 16 pictures. It is the first phone with a 5MP autofocus front camera. With its large, bright screen and wide angle viewing (IPS) display, Stellar Pinnacle Mi-530 is the perfect device to watch movies and play games on the go.

PRICE: Rs 13,999
WEBSITE: www.smobility.in

– jamshed.avari@chip.in

Tools for Typing in Indian Languages

Here's a compilation of free and proprietary software for typing in various Indic languages using standard PCs and mobile devices.

BY **ROHINI LAKSHANE**

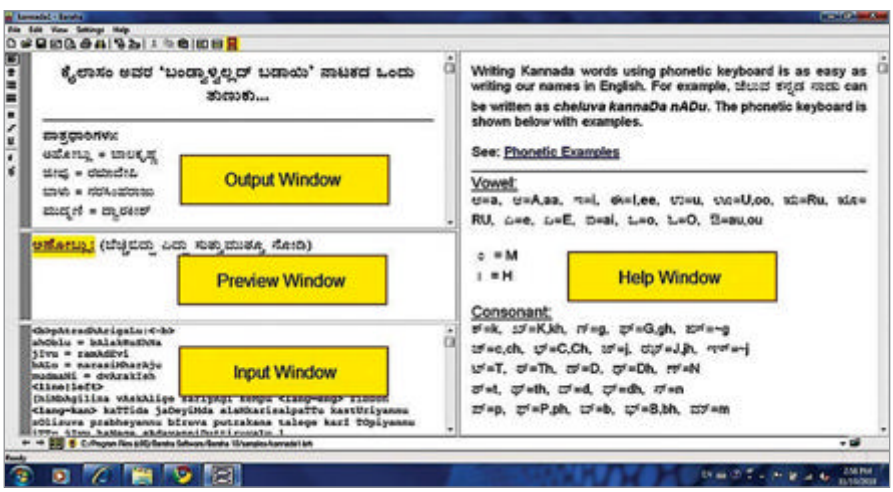


Census 2010 figures show that only 2.3 lakh (0.23 million) Indians listed English as their primary language, while around 86 million listed it as their secondary language. In the past four years, 88 million new Internet users were added in India. With more Indians going online, the need to communicate, transact, and get information in native languages has deepened. We list a few tools and software for typing in Indic languages that enable users to type using standard computer hardware or mobile phones and tablets.

Baraha

Baraha is a free-turned-proprietary Indic language word processor that works with Windows. It supports Devnagari, Bengali, Gujarati, Kannada, Gurumukhi, Malayalam, Oriya, Tamil, and Telugu scripts, and enables users to type in 20 Indic languages. It transliterates text typed using Unicode Latin characters to the chosen language. Baraha has features like:

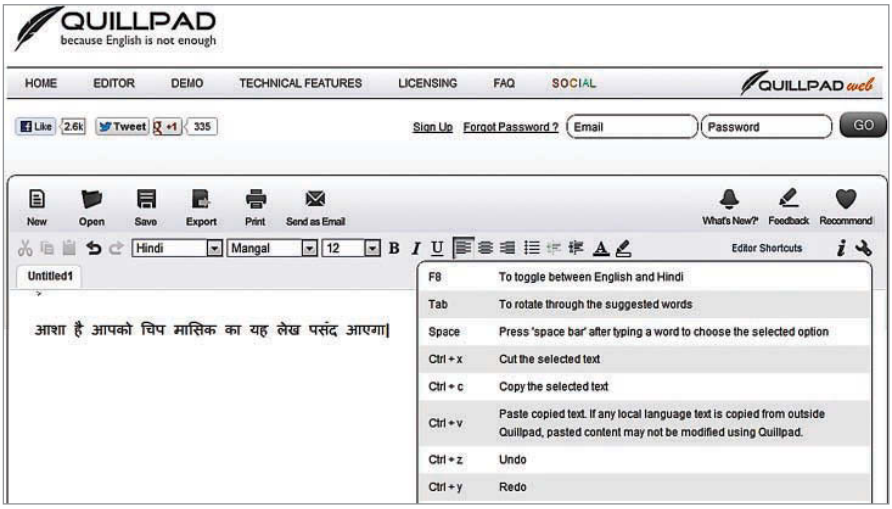
- **BarahaPad:** Standalone editor
- **BarahaIME:** Input method editor (IME) compatible with Open Office and Microsoft Office
- Conversion of text from one Indic script to another
- TrueType fonts for Indian languages
- InScript, Brhkbd and phonetic keyboard overlays
- Braille script
- Spell check
- Translation
- Font conversion from Baraha fonts to third party fonts
- Musical notations (Carnatic and Hindustani)



Here's a look at Baraha's interface while typing in Kannada (Source: Baraha.com)

Jagdish Limbachiya

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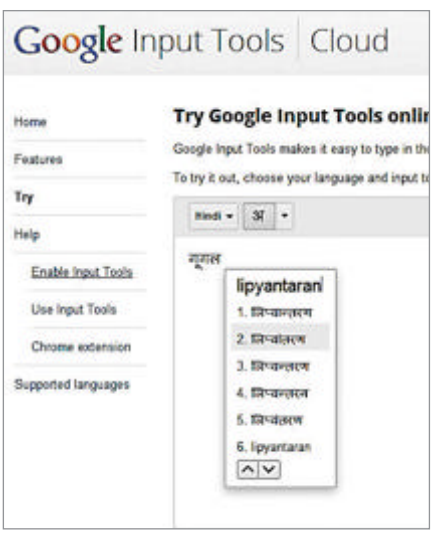


Quillpad features a rich text editor and supports quite a lot of languages.

Transliteration using Baraha takes a little time and effort to master as it follows a rigid typing syntax. For instance, the long vowel 'a' (ā) is typed as 'A'. The cerebral sound of the letter 'd' is typed as 'D', and the dental sound as 'd'.

Quillpad

Quillpad was born out of the need to phonetically transliterate letters typed using a keyboard layout with Latin characters, such as QWERTY, without learning a typing syntax. It supports languages like Marathi, Hindi, Tamil, Telugu, Kannada, Malayalam, Punjabi, Bengali, Gujarati and Nepali. Quillpad features an online rich text editor. You can save and print documents, and the transliterated content can be shared on Facebook and Twitter. The tool uses an algorithm for predicting transliteration of Roman script input. Quillpad works with both conventional and phonetic spellings. The algorithm can be replicated to work with other languages as it does not use a dictionary approach. What's more, the transliteration gets better with use. The Quillpad Mobile app is available for Nokia devices and Quillpad Touch is available for iOS and Android.



Google Input Tools

Google Input Tools (goo.gl/yt2gu) replaces Google Transliterate and its offline, downloadable version—Google IME. The tools include phonetic transliteration, IME (input method editor) and a virtual keyboard. It does not require users to memorise the transliteration scheme. Users can type in the language of choice using the virtual keyboard from any kind of physical keyboard and the tool also lets users quickly switch between different languages.

Input Tools is available as a Chrome extension, Android app and an offline, Windows desktop application. Input Tools for Windows supports transliteration in 22 languages, including Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Tamil, Telugu and Urdu. Cloud Input Tools (goo.gl/fduFP) has been integrated with services such as Google Search, Google Drive, Gmail and Google Translate. It is also available as a Chrome extension. Input Tools supports 78 languages from across the world.

Microsoft Bhasha: Indic Language Input Tools

Microsoft has developed a set of free transliteration tools compatible with Windows for typing in Indic languages. Users may download and install either Indic Input 1 or Indic Input 2, both of which are available in Nepali, Marathi, Assamese, Bengali, Gujarati, Hindi, Kannada, Malayalam, Oriya, Punjabi, Tamil and Telugu. Microsoft also supports these 12 Indian languages in Windows, Office and Windows Live. The portal Bhasha India by Microsoft provides several resources for Indic language computing and translation.

iLeap

iLeap2 and iLeap Office 2000 are Windows-based proprietary software used to create documents in Indic languages. iLeap 2 supports phonetic keyboard, InScript keyboard, Indian language typewriter keyboard and WYSIWYG display. Users can make, import and export documents in HTML, BMP, RTF, and JPEG formats. Assamese, Bengali, English, Gujarati, Hindi, Kannada, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, and Diacritic Roman script are supported. A trial version of the software is also available.

InScript

InScript, a portmanteau of the words Indian Script, is a keyboard layout

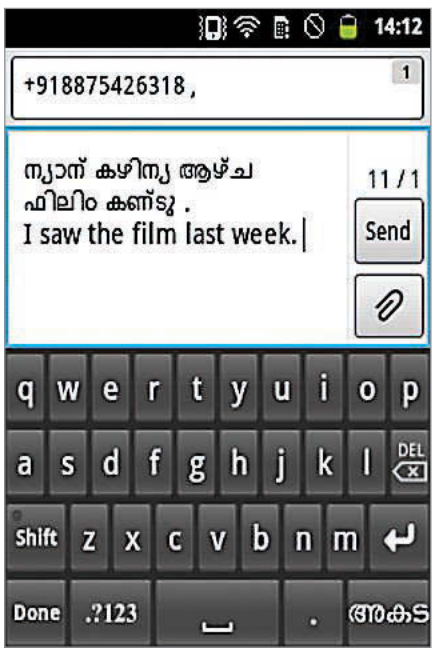


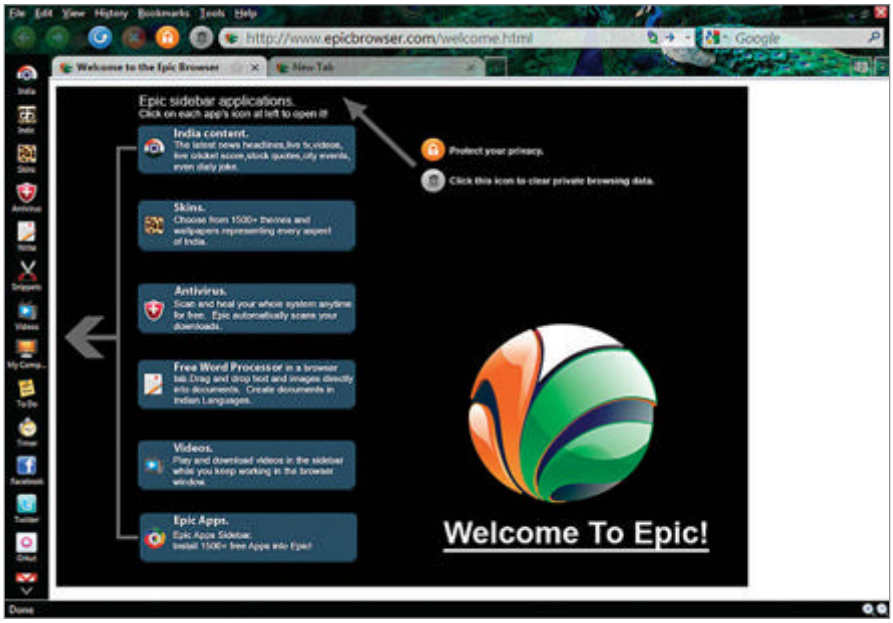
InScript Devnagari layout can be downloaded for free. (Source: Wikimedia Commons)

developed by the Government of India for use with standard ASCII keyboards. The layout, developed in collaboration with several organisations, supports the standard Roman script and 12 Indian scripts: Devnagari, Bengali, Tamil, Telugu, Kannada, Gujarati, Malayalam, Oriya, and Punjabi. The layout can be downloaded for free and is compatible with various versions of Windows, Linux, and Mac desktop OS. The Technology Development for Indian Languages (TDIL) website houses many resources, such as the localised versions of Bharteeya Open Office and Unicode typing tools, for using computers in Indian languages.

Panini Keypad

Panini Keypad is a free, downloadable keyboard layout available for a variety of mobile phones and PCs. It supports Tamil, Telugu, Marathi, Hindi, Bengali, Gujarati, Kannada, Malayalam and Punjabi on phones that work on Java, iOS and Android. The layout is compatible with touch, touch-and-type, and type-only phones. You can also download it from Mobile9, Getjar, Appia, Mobango, Mobilerated, Phoload, Nokia OVI Store, Sharejar and Mediafire. The IME, which is not free, needs to be downloaded separately. Panini uses a predictive algorithm to determine the characters you'd be typing. Unlike the tools listed above, users can type in the language of choice using a standard keyboard layout without transliterating words.





Indic Typing Tool

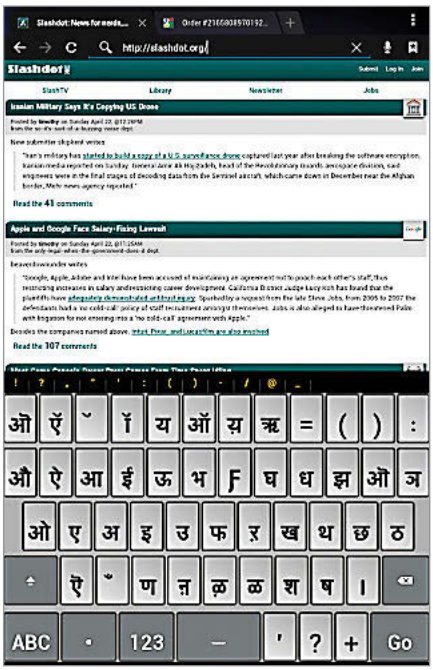
A new and ingenious phonetic transliteration tool, the Indic Typing Tool can be accessed from the browser on iOS devices and works offline. An Android version of the tool is also in the offing. The tool is built on a MediaWiki extension called Narayam, which is used for typing on most Indic language Wikipedias. It currently supports 11 Indic languages. Apart from transliteration, it supports a variety of keyboard layouts such as InScript, Probhat (a free Unicode layout for typing in Bengali) and Bolnagari (a phonetic input method for Unicode Devnagari fonts). Visit this link for more information: http://goo.gl/hf9SC

Devnagari Keyboard Tiger

Devnagari Keyboard Tiger is an Android app that displays a keyboard with the Devnagari script in the InScript layout. It only works with smartphones that have Indic fonts installed. It also has English dictionary support. The app costs Rs 77, but a free version with fewer features is also available.

Epic browser

Epic incorporates several features to suit the requirements of Indian users. It enables users to type in 13 Indic languages anywhere in the browser using standard Latin keyboards. It works on Windows and supports transliteration in Hindi, Bengali, Telugu, Punjabi, Marathi, Gujarati, Sanskrit, Oriya, Nepali, Tamil, Kannada, Malayalam and Urdu, apart from Arabic, Chinese, Sinhalese, Persian, Russian and Greek. The free browser also supports numerous apps, such as an in-built word processor that enables users to write documents and notes both in Indian languages and English.



Several other free and proprietary tools let you type in Indian languages using commonly available hardware. Cafe Hindi Unicode Typing Tool and Azhagi are also good; MultiLing Keyboard is an Android app that supports typing in around 70 international languages, including 16 Indic languages.

- feedback@chip.in

Network 18







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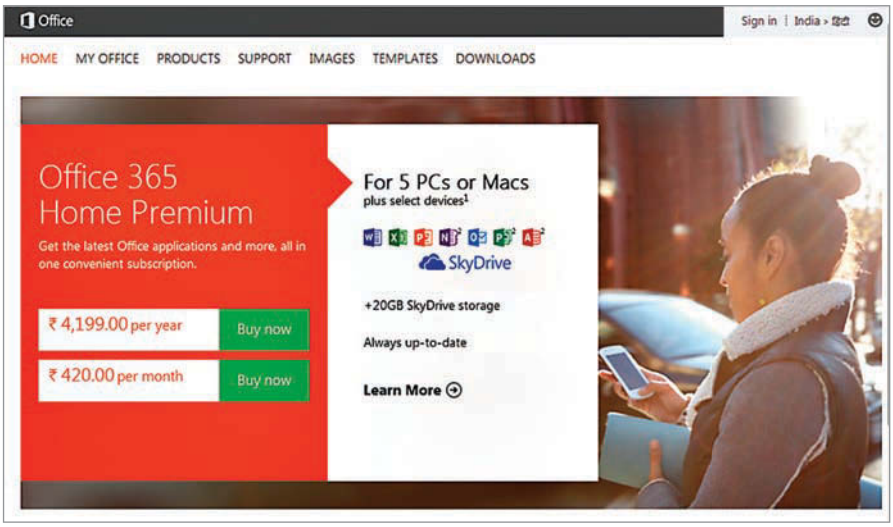
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Office 2013 vs Office 365: Should You Buy or Subscribe?

There are two completely different ways to use the new version of Microsoft Office. We help you decide which is the right one for you. BY **JAMSHED AVARI**

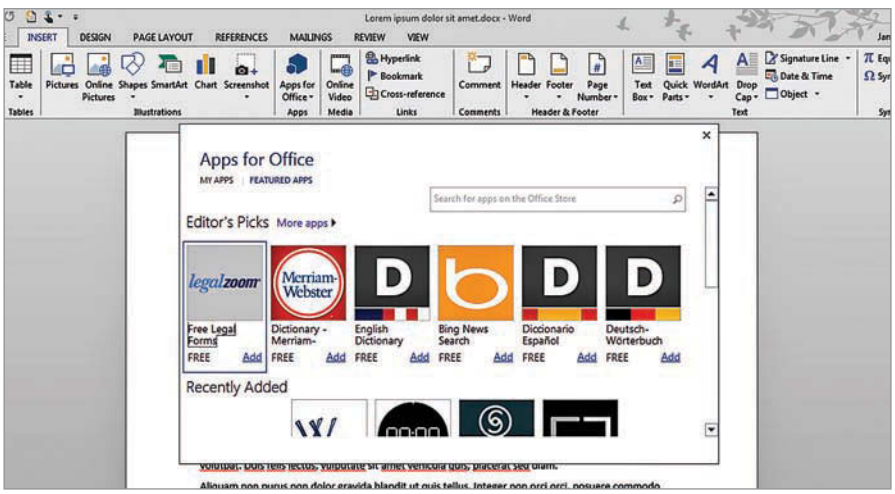
Be it pirated or legal, the vast majority of us use Microsoft Office. It's impossible to imagine computers without Word, Excel and PowerPoint, and very few people are fully satisfied with the alternatives that have appeared over the years. One huge reason for that is piracy—since the very first Windows PCs appeared in Indian homes and offices, Office has been passed around freely, from assemblers to customers and from friends to friends. It has become such a fundamentally important part of using a computer that people are often surprised or outraged to hear that it has to be bought separately.



Microsoft's Office website shows the pricing and features of Office 365 front and center. The fact that the subscription works across five PCs, as opposed to old-fashioned purchases, is also highlighted.

Two sides of the same coin

Even though the compulsory activation has become tougher to sidestep and people have grown aware that piracy isn't entirely legal, the sheer demand for Office has kept illicit copies in circulation. Reducing prices doesn't seem to have helped very much either. Now, Microsoft wants us to pay a monthly or annual subscription to maximise the number of users from whom it can collect money. This isn't the first or most ambitious attempt at converting software purchases into subscriptions—Adobe's Creative Cloud springs to mind—but rather than being an option for those who want it, Office 365 is set to become the preferred way of buying and using Office. This will be the first experience of Software as a Service (SaaS) for many home users.



Office 365 is necessarily tied in to your Microsoft account. However features such as these "apps" for Office programs require you to be signed in whether you choose a subscription or an outright purchase.

The differences between Office 2013 and Office 365 aren't very clear at first glance. 365 is the name of the subscription service that gives you access to the most recent version of the Office programs on up to five devices, which right now means Office 2013. A subscription will add an extra 20GB to your SkyDrive account and get you 60 free minutes of Skype calling per month. You can download and run a small, temporary instance of any Office program on any computer, any time you need it. If for any reason you cancel the subscription or fail to pay, the programs will fall back to a "reduced functionality mode" which lets you open and print documents, but not much else. If you want to pay per month, your credit card will be billed automatically. This precludes the option of using the programs on demand whenever you need them, which would be nice for those with occasional usage patterns. Beyond this, the software is identical.

Jagdish Limbachiya

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	Office 365 Home Premium	Office 2013 Home & Student
Cost	Rs 420/month or Rs 4,199/year	Rs 5,499 for life
Number of devices	5	1
Programs	Word, Excel, PowerPoint, OneNote, Outlook, Access, Publisher	Word, Excel, PowerPoint, OneNote
Extras	20GB SkyDrive, 60 minutes Skype credit	-
Web Access	Office On Demand, Web apps	Web apps
Free Upgrades	Rolling updates, always run the latest version	Patches and service packs only

Office programs purchased outright will still ask you to tie yourself to a Microsoft account and will still use SkyDrive as the default save location for all files. There's no cool "on demand" Office, but you still have the highly functional Web apps via office.com and SkyDrive. The main advantage is that once you pay for it, it's yours to keep. For better or worse, that privilege will cost you quite a bit. Here's a quick comparison of the costs and features of subscribing to Office 365 and buying Office 2013 outright.

The actual numbers

Right at the outset, it's clear that the cost of Office 365 will exceed that of a retail package in the second year. If you consider the fact that Office 2010 Home & Student is still selling for Rs 3,999 and anyone who buys it before April 30 this year is eligible for a free upgrade to 2013, even one year's worth of Office 365 seems excessively expensive. Of course, the value equation changes as you go up the pricing chart: Office 2013 Home & Business adds Outlook and costs Rs 13,499, which pushes the break-even point to just over three years.

Here's what Microsoft has to offer though: you get to use 365 on five devices, which can include any mix of PCs and Macs. Presumably, iOS and Android devices will be added to this if and when Office apps for these platforms ever launch. If you do actually use all five licenses, 365 will make more sense over time—it will be six and a half years before you match the cost of five outright purchases. Then there's the fact that you get only Word, Excel, PowerPoint and OneNote with the base retail package, but 365 also includes Outlook, Access and Publisher. While Outlook is probably the most useful of the bunch, home users and students, who are the primary audience here, are unlikely to require its functions, and no matter how good Publisher and Access are, they're not exactly in high demand.



It seems Microsoft wants retail copies of Office 2013 to look less attractive. The prices of the standalone programs are laughable: each individual program costs more than the Home & Student bundle.

The outright purchase simply makes better financial sense—and that's not even taking into account the very attractive prospect of saving Rs 1,500 by buying Office 2010 and upgrading. (There isn't much reason to upgrade from Office 2010 to 2013 on the whole, but if you really want to, buying another copy solely for the upgrade will work out 28 percent cheaper.)

The final word

As things stand, the subscription option isn't so attractive for the average home user with a single PC or laptop. No matter how much Microsoft would like to tie us into monthly or yearly commitments, there's just no way to justify that kind of outlay. It only works in the very unlikely scenario that you have five computers on which you need all the full-fledged Office programs. The company should think very seriously about creating a tiered 365 plan without Outlook, Access and Publisher, priced at half or a third of what the Home Premium offering costs. Microsoft has missed the opportunity to appeal to the huge number of people who pirate Office right now but would consider paying a small amount to get an original copy.

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Code Your Way to a Job

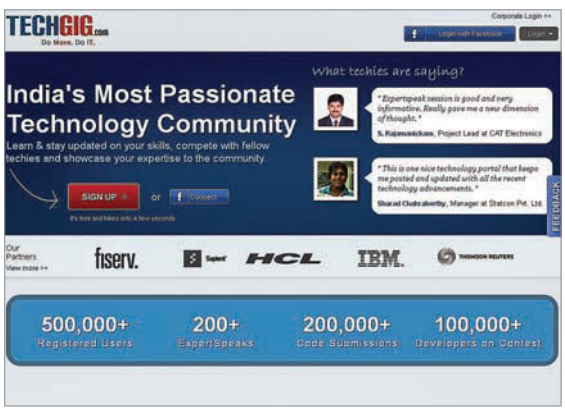
Hiring trends are changing and companies are adopting innovative means to find the right employees. So if you're a coder, your search for a job just got a little easier. Simply enter a coding competition and do well to land yourself a cushy job. BY **PRIYANKA TILVE**



A good coder may not necessarily be the best resume writer and vice versa. But the resume is often the first point of contact with potential employers, even before you get a chance to prove your skills. However, thanks to changing trends companies are increasingly looking beyond the traditional means when hiring, especially when it comes to IT. Coding competitions are among the new lands where recruiters look to harvest new talent. There are several platforms that organise coding contests in association with tech companies, and if you can prove your mettle at a competition, you could easily land yourself a job. The trend is slowly picking up with some of the leading tech companies exploring this channel. While the companies find the right candidates, the benefits for job seekers are plenty: coders don't have to apply for jobs in several companies, they'll be judged based on their skills, and there's lots of global exposure, amongst other things.

One of the first companies to establish the trend was the result of a college project. Launched in 2009, InterviewStreet was co-founded by engineers Vivek Ravisankar and Harishankaran K. It started off as part of a college project during the placement season, when they set up a forum to conduct mock interviews to filter the right candidates. It was so effective that they decided to take it further and the result was Interviewstreet.com. The platform has come a long way since then and its roster includes companies like Zynga, Facebook, Amazon and even NASA. Speaking about their success, Vivek Ravisankar, Co-founder, InterviewStreet, said, "We've had over 4k programmers participate in these contests. The coding contests are fun and when coupled with a job prospect, they become all the more rewarding. The programmers also get an opportunity to connect with multiple companies through just one coding contest. I believe such centralised recruitment is definitely the way to moving forward even for the employers."

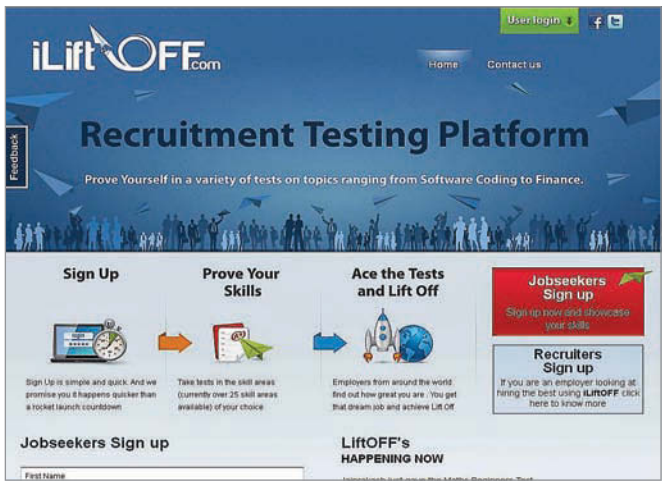
Companies use InterviewStreet to recruit programmers who have to take up the coding challenge and offers are made based purely on the score. InterviewStreet periodically conducts coding competitions to test coders' skills and attract the attention of the recruiters. CodeSprint is one of its successful coding contests and attracts recruiters and programmers alike. The recently concluded CodeSprint 3, which was open for programmers from all over the world, attracted companies like Quora, Palantir, Coursera, OpenTable and RocketFuel. Speaking about CodeSprint, Vivek said, "It involves solving basic programming problems, AI and algorithmic challenges. It's usually held over the weekend; the participants are alerted by email at the start of the contest and they can begin solving the problems. They earn points for solving problems correctly; these points then determine their standing, based on which companies contact them. Going forward, we plan to

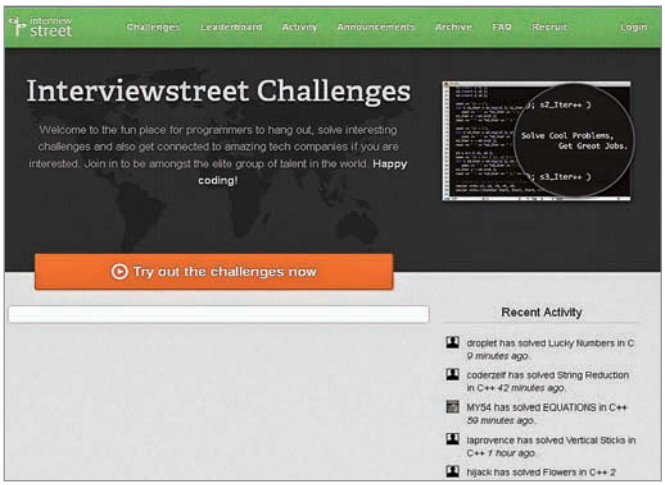


> *"Job seekers can now showcase their actual coding/programming skills or skills in other sectors rather than be judged by companies on the basis of how well they can write their resume."*
>
> **– Abhinav Aggarwal,** Co-Founder & CTO, Trutech Webs

Jagdish Limbachiya

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conduct CodeSprint every month." When a participant is hired by a company, they have to pay a certain amount to InterviewStreet. Tech giants like Microsoft, Amazon, Apple, Facebook and Groupon have been known to use the platform. Some even customise the challenges to meet their specific requirements.

Another platform on a similar premise is iLiftOff, but unlike the former, this one is not limited to coders and is open to several other disciplines as well. iLiftOff was established by siblings Raghav and Abhinav Aggarwal, both self-taught coders. When they established their first company Trutech Webs, they experienced great hardship in finding the 'right' software developers for their organisation. Speaking about the initiative, Abhinav Aggarwal, Co-Founder & CTO, Trutech Webs, said, "Whenever we would look to hire software developers for Trutech, we would have to screen through literally thousands of resumes on job sites like Naukri and Monster as well as resumes sent by offline HR consultants. And as resumes do not provide much information, we would end up undertaking several hundred resumes wherein the candidate would be ill-fit for our organization. We also realised that many good candidates would not have a properly worded resume and would find it tough to communicate in an interview setting, but had excellent coding skills. To solve this problem we made a series of online coding tests which candidates could give and on the basis of these test scores we would recruit them. To our pleasant surprise, we found candidates who were perfect for our company using the tests while at the same time reducing the number of interviews we conducted by over 50 percent."

This led to the establishment of iLiftOff, which has over 125 online tests in areas such as technology, finance, marketing, law and general aptitude. You can create your profile and give a test in your area of expertise and depending on your scores, you will be contacted by recruiters. Companies also have their custom tests for which you can appear directly from the platform; if successful, you will be called in for an interview. They have also launched an API so job portals can integrate the tests on their platform. Since its launch a couple of months ago, the platform has been used by companies like Rediff and Justdial, and has attracted over 15,000 job seekers. Speaking about the benefits of the platform for the job seekers, Aggarwal said, "Job seekers can now showcase their actual coding/programming skills or skills in other sectors rather than be judged by companies on the basis of how well they can write their resume. Using iLiftOFF, they can actually go ahead and prove to employers their actual talent and value rather than just an interview process wherein they may not be fully able to show their technical skills. Also, they can judge their abilities and suitability for a job by their test scores and on that basis can identify the different areas they need to improve in so as to get their dream jobs."

Another avenue where you can put your coding skills to test is TechGig—another platform where IT professionals can interact with their peers and share their skills. It has a feature called Skill Test that has tests for several programming languages like C, C++, Java, PHP, HTML, Linux, Oracle, Windows, Android, Ajax, Web Designing, Testing, Facebook APIs, and Perl. You can appear for as many of these tests as you like to assess your skills. The results will provide you with a clear picture of your strengths and weaknesses, which in turn will help you work on your weaker areas. It will also give you an idea of where you stand compared to others. If you manage to be at or near the top of the leaderboard, you will invariably attract the attention of recruiters on the portal. It also conducts coding contests that require you to solve programming challenges in your chosen language. There are attractive prizes for the winners. Another aspect of the contests are the ones organised by companies looking to hire. You can take part in these contests and earn a chance for an interview. Before entering any of the contests, you can practice by solving the previous challenges that are available. You can even seek guidance from community members. TechGig also acts as a job portal where you can access jobs posted by employees of various companies as well as jobs posted on the job-board of companies.

- priyanka.tilve@chip.in

> *"The coding contests are fun and when coupled with a job prospect, they become all the more rewarding. The programmers also get an opportunity to connect with multiple companies through just one coding contest."*
>
> **– Vivek Ravisankar,** Co-founder, InterviewStreet

PRODUCT SPOTLIGHT



PHONE

HTC BUTTERFLY

VERDICT: The best Android money can buy right now!
FOR: Brilliant screen; very good camera; great multimedia performance; expandable storage.
AGAINST: Poor battery life; quite expensive.

CHIP TEST CENTER RECOMMENDED MAR 2013

HTC kicked off 2013 with a bang by launching India's first smartphone with a Full HD display, the HTC Butterfly. This trend of Full HD screens on smartphones looks like it'll soon pick up pace as Sony gets ready to launch the Xperia Z, followed by Samsung and other OEMs who'll announce their flagships at MWC 2013. For now, the Butterfly is the only handset in the market with a Full HD display. It currently reigns over the high-end smartphone segment with its iPhone 5-esque price. The Butterfly has some big shoes to fill if it's serious about luring Apple fans. Can it deliver something more than just an impressive spec sheet?

The first thing you notice when you lift the Butterfly out of the box is how freakishly light it is. In spite of having a 5-inch display, it's just a teeny bit heavier than the HTC One X. The display does not seem obnoxiously large like the Galaxy Note's did since it's longer in length, like the iPhone 5, and not too wide. This makes it comfortable to use if you have medium-sized hands. The volume rocker is wide enough to be used without stretching your palm, but you'll have to shuffle the phone a bit to reach the power button, which is placed at the top. The Butterfly is completely sealed, so you can't remove the battery. All entry points to the SIM slot, microSD card and USB port are covered with flaps. The flaps prevent dust build-up over time, but are terribly annoying to use, especially the flap for the microSIM tray.



An excellent 8 megapixel shooter adorns the back of the handset.

The Butterfly doesn't have a unibody design like the One X, but it still manages to look good. The front is dominated by a Gorilla Glass 2 protective layer with the same lacquer finish we saw on the One X. This makes the colours pop, but it does leave nasty fingerprints on the phone. The sides feature a mesh-like trim, which does nothing for cooling the handset but is simply there for aesthetic value. We liked the attention given to the power and volume buttons—they have concentric circle patterns that add to the grip as well as the 'cool' factor. The Butterfly's back is glossy, but it still manages to mask fingerprints extremely well. The rear is also home to the 8 megapixel shooter with LED flash and a new notification light. This is the first time we've seen HTC, or anyone for that matter, put a notification light on the back of the phone as well. Just like the light on the front of the phone, it flashes amber or green depending on the type of notification. Both are extremely dim, though, and can barely be seen in day light.

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The build quality of the Butterfly is excellent, but it doesn't really feel like a Rs 40,000 phone. The One X exuded a premium look and feel and you could tell that it was an expensive phone by just looking at it. The Butterfly somehow fails to deliver such a feeling.

The HTC Butterfly runs on Android Jelly Bean 4.1.1 along with the Sense 4+ mask. The main talking point, the panel type, is Super LCD 3 and boasts of an impressive 1920 x 1080 resolution, giving it a pixel count of 441ppi. This is nearly double the resolution you get from any other flagship phone in the market.

The pixels are so densely packed, you can't see any pixellation around icons even if you look very closely. This makes everything, especially text, incredibly sharp and vivid. What's more, HTC has had to bump up the resolution for their entire skin in order to keep up with the extra pixels. While it does look great, you can't really tell the difference between a 720p and 1080p display on a 5-inch screen just by looking at it. HTC's upscaling engine does a good job of rendering games and apps on such a high-res screen, and we didn't come across any issues here.

The Butterfly is powered by Qualcomm's Snapdragon S4 Pro SoC and has a whopping 2GB of RAM. The 16GB of onboard space can be expanded to 32GB via microSD cards.

The Sense 4+ UI is free of any lag and navigation is buttery smooth, but we missed the shortcut toggles in the notification bar from previous Sense versions. The music and video player are very similar to Sense 4, with the addition of DivX and MKV playback. The only audio enhancement, Beats Audio, amplifies the volume and low frequencies and treble quite a bit. SD content doesn't look terrible despite the high-resolution screen and Full HD videos play flawlessly. Colours are rich and vibrant and the display is bright with very good viewing angles and sunlight legibility. An FM Radio is also present, along with 7 Digital and TuneIn Radio. However, the Sense 4+ keyboard is still not the best you can find and the word prediction could use a major update.

The HTC Butterfly is a quad-band GSM handset with dual-band 3G support. It also has dual-band Wi-Fi (hotspot), Wi-Fi Direct, GPS with A-GPS support and GLONASS, DLNA, Bluetooth 4.0, and TV out (MHL). Social networking and other services like Skydrive and Dropbox are baked right into Sense. All your contacts are automatically synced with various social networking sites like Facebook and Twitter, and the Friend Stream app gives you quick access to feeds and updates.



Attention to detail gives the Butterfly a premium look and feel.

Besides the usual assortment of Google apps, a few HTC-centric apps like Mirror (uses the front facing camera), HTC's Car setup app gives you a landscape display with oversized icons, which make it easy to access your device while you're driving.

The camera sensors seem to have been lifted off the 8X, as the Butterfly packs the same f/2.0 front-facing camera and rear camera. The camera interface and features are very similar to that of the One X+, only, the quality of images is much better. The f/2.0 aperture gives you incredible depth of field effects for macro shots. The sensor is also able to pick up much more detail than before. The awesome burst mode also makes a comeback here.

The Butterfly has a 2020mAh battery, which lasted for just 6 hours and 40 minutes in our video drain test; this is borderline average. The One X+, on the other hand, gave us about 9 hours of video playback despite having a more power-hungry SoC. The high-resolution screen seems to be the culprit here more than Qualcomm's SoC. We don't even want to imagine what effect a Full HD Super AMOLED screen will have on the battery.

With a price tag of Rs 45,990, the HTC Butterfly is officially the most expensive Android handset in the market and goes head on with the iPhone 5. It is a brilliantly-crafted handset and takes pole position in HTC's Android fleet. It looks majestic (although we still maintain the One X was a better looker), feels comfortable in your hand despite the large screen, has a sharp and vivid display, very good multimedia features and excellent cameras. However the poor battery life, coupled with its high price and just 16GB of onboard storage is a potential threat to sales.

- Roydon Cerejo

SPECIFICATIONS

Rs 45,990
www.htc.com/in

Dimensions (WxHxD): **143 x 70.5 x 9.08mm;** Weight: **140g;** CPU: **Quad-core 1.5GHz;** RAM: **2GB;** Display: **5-inch Super LCD3, 1080 x 1920 pixels;** Camera: **8MP with autofocus and LED flash;** Storage: **16GB;** Video: **1080p @30 fps;** OS: **Android 4.1.1 Jelly Bean**

CONTACT	HTC India
PHONE	9811428765
EMAIL	shaurya.vedvyas@brightpoint.com

RATINGS

BUILD QUALITY	★★★★½
ERGONOMICS	★★★★½
FEATURES	★★★★★
PERFORMANCE	★★★★½
OVERALL RATING	★★★★½
VALUE FOR MONEY	★★★½½



PHONE

SAMSUNG GALAXY GRAND DUOS

FOR: Great design; great video capabilities; good camera; plenty of handy features; well priced; dual-SIM.
AGAINST: Slightly large; low-res display.

The Grand Duos looks like a Note II clone, but it has the finish and build of the S III. It feels strong and durable, but is on the thicker side at 9.6mm and is quite heavy as well at 162gm. Just like the other Galaxy handsets, the sensors and the front-facing 2 megapixel camera are on the front. Underneath the rear cover, we have the two GSM SIM card slots and a microSD card slot. For the first set of devices, Samsung has bundled a separate rear cover with a flip-style screen protector. As it turns out, the 5-inch screen's 480 x 800 resolution is actually quite good. The phone runs Android 4.1.2 Jelly Bean along with TouchWiz and the interface is quite smooth. Features like Multi-window, Pop-up play, Smart Stay and S Voice are present. The fluidity of the interface can be attributed to the ARM Cortex-A9 MPCore SoC. This consists of a dual-core CPU running at 1.2GHz with 1GB of RAM. The GPU is a Broadcom Video Core IV. Samsung manages to deliver a great overall media experience with this device. The video player supports most formats including AVI and MKV with full HD 1080p playback. The Grand supports external storage of up to 64GB.

The Grand Duos is a quad-band GSM handset with tri-band 3G support. You also get dual-band Wi-Fi, Wi-Fi Direct, GPS with A-GPS support and GLONASS, DLNA, and Bluetooth 4.0. TV-out and NFC seem to be missing, but we doubt they'll be missed much. You can set dual standby for the SIM cards and also configure which SIM should use 3G.

The stock keyboard works well and in split-screen mode, you get a "floating keyboard" that you can position anywhere on the screen while using both apps. The Grand's 8 megapixel sensor is accompanied by an LED flash and outdoor shots come out really well with good detail and accurate colour capture. Indoor shots were also good and there was very little noise. The Grand manages macros well too. Video recording maxes out at 1080p and you have the option of adding filters as well.

The 2100mAh battery puts on a very good show— the Galaxy Grand ran for nearly 8 hours and 40 minutes in our video drain test. This is very good if you frequently watch videos on the go. The battery life will be lesser when both SIMs are active, but even so, we feel you should easily be able to pull off around 16 hours of actual usage.

The Samsung Galaxy Grand is priced at Rs 21,500, which makes it a very good buy owing to its dual-SIM feature and its overall performance and functionality. It has very good media capabilities, a good battery life and a good camera with full HD recording. It also has most of the features of the Note II, like split-screen mode, and packs all of this in a pretty well-built body.

- Roydon Cerejo



The Grand packs in a good 8MP shooter and an LED flash.

SPECIFICATIONS

Rs 21,500
www.samsung.com

Dimensions (WxHxD): **143.5 x 76.9 x 9.6mm;** Weight: **162g;** CPU: **dual-core 1.5GHz;** RAM: **1GB;** Display: **5.0-inch Super LCD2, 480 x 800 pixels;** Camera: **8MP with autofocus and LED flash;** Storage: **8GB;** Video: **1080p @30 fps;** OS: **Android Jelly Bean (4.1.2)**

CONTACT	Samsung India
PHONE	1800-3000-8282
EMAIL	NA

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

A TRUE VALUE FOR MONEY ANDROID PHONE WITH A LOT TO OFFER.

PHONE

HTC WINDOWS PHONE 8X

FOR: Great design; Beats Audio; good front-facing camera.
AGAINST: Average battery life; pricey.



HTC's flagship Windows Phone 8 device, the 8X, exudes style and elegance. It features one of the best designs we've seen in a while: the blend of rubberised polycarbonate and glass gives it premium look and feel, while the volume rocker and power button sit flush with the side panel, making for a very clean look. The 8X also features a dedicated camera shutter button.

Around the back, we have an 8 megapixel camera and LED flash. The 8X also features Beats Audio enhancement for music and video. At 10.1mm thick and 130g in weight, the phone feels very comfortable. The moderately large 341ppi 4.2-inch Super LCD2 screen protected by Corning's Gorilla Glass 2 keeps everything within your thumbs' reach. Sunlight legibility is also good.

HTC has bundled some of their own apps like Flashlight, HTC Hub, etc. that we've seen on their Android offerings. Other than this, it's pretty much all stock Windows Phone 8. There's only 16GB of onboard storage and no option to expand.

Apart from an occasional stutter, the UI is quick and fluid. The keyboard is comfortable to type on and word prediction works well. The screen is bright and sharp, and produces vivid colours. The 8X is powered by a Qualcomm Snapdragon SoC with a dual-core Krait CPU and Adreno 225 GPU. This, coupled with 1GB of RAM, makes for quite a powerful hardware configuration.

Audio quality is surprisingly good. The stock music player does a good job of sorting out your music library and you have the option to browse through music and videos in the store. Beats Audio is only activated with headphones plugged in. There's 1080p video playback support for MP4 files too.

The 8X is a quad-band GSM and 3G handset. Connectivity options include dual-band Wi-Fi, Bluetooth v3.1, NFC and microUSB. For navigation, we have GPS along with GLONASS. Active noise cancellation does a good job of cutting out ambient noise when on a call. The 8 megapixel BSI sensor boasts of a f/2.0 aperture. HTC hasn't added too many settings to the camera app. In outdoor daytime shots, the 8X manages to capture good colours, but the level of detail is only average. Macro shots are a lot better. Indoor shots without flash aren't too bad either. Video recording maxes out at 1080p.

The HTC 8X packs an 1800mAh battery, which delivered a very good 7 hours and 40 minutes of video playback time in our battery test. However, we noticed that with regular real world usage, which included calls, music playback, EDGE and Wi-Fi, the battery tends to give up sooner. The HTC Windows Phone 8X is quite overpriced for what's on offer. It's built well, looks great, and has an excellent front-facing camera. Apart from this, there just isn't much to shell out this kind of money for.

- Roydon Cerejo



The large aperture makes for some really good low-light shots.

VERDICT

A VERY WELL BUILT SMARTPHONE, BUT A LITTLE TOO EXPENSIVE.

SPECIFICATIONS

Rs 35,800
www.htc.com/in

Dimensions (WxHxD): **132.4 x 66.2 x 10.1mm;** Weight: **130g;** CPU: **Dual-core 1.5GHz Krait;** RAM: **1GB;** Display: **4.3-inch Super LCD2, 720 x 1280 pixels;** Camera: **8MP with autofocus and LED flash;** Storage: **16GB;** Video: **1080p @30 fps;** Operating System: **Microsoft Windows Phone 8**

CONTACT	HTC India
PHONE	9811428765
EMAIL	shaurya.vedvyas@brightpoint.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

CHIP TEST CENTER RECOMMENDED MAR 2013



PHONE

XOLO A800

FOR: Good build and design; BSI camera sensor; good multimedia performance.
AGAINST: Weak loud speaker.

XOLO has nailed the design and aesthetics of the A800. The handset looks and feels balanced and we love the choice of plastic used. However, the glossy front tends to attract fingerprints and reflections can be an issue. It doesn't fare very well when it comes to sunlight legibility either. It has three capacitive buttons at the bottom, along with a front-facing camera and sensors on the top. It's a fairly slim handset with the volume rocker on the left and the microUSB port below that. The power/sleep button and 3.5 mm headphone jack are on the top, leaving the right side bare.

The A800 runs stock Android 4.0 Ice Cream Sandwich with some tweaks to the settings and the notification bar. There are scrollable toggle switches in the notifications area, but these aren't customisable. The settings menu is also quite different with new icons and additional sub-menus for dual-SIM management, sound profiles and an option to automate tasks like shutdown and restart the phone. The UI functions smoothly and fluidly thanks to the snappy dual-core MediaTek MT6577 SoC and 512MB of RAM. Minute lag and stutter creeps in when swiping across homescreens, but that could just be ICS acting up.

For media playback, we have the stock ICS audio and video player. Audio quality is decent as long as you use a good pair of IEMs. The volume of the speaker is not very loud; it's enough for alerts, but dialogues in movies are not very clear. There's an FM radio present too.

Unfortunately, the XOLO A800 is not a quad-band Android phone. You only get two bands for GSM and one band for 3G. This is not a problem as long as you plan on using it in India, but if you travel abroad, the phone might not always work with other carriers. You can use two SIMs in A800, but remember that only one of them supports 3G. Other connectivity options include Wi-Fi 802.11 'n', Bluetooth v3.0 and microUSB for charging and data transfer. There's no video-out option or NFC here. For navigation, we have GPS with A-GPS and Google Maps.

The A800's camera has an 8 megapixel BSI sensor that manages to capture good pictures, both indoors and outdoors. For stills, you get a whole bunch of options, right from HDR, white balance, scene modes and colour effects. The settings menu has an option called ZSD, which is a type of image stabilisation, and it actually manages to work quite well. When turned on, slight movements are very well compensated for by the software.

For Rs 11,999, the XOLO A800 is easily the best Android handset we've come across at this price point. Some of the strong points of the handset include the excellent display, snappy dual-core CPU, dual-SIM support, very good build and aesthetics, bundled memory card, 8 megapixel camera and the option for future updates. It's not without its faults though. But we don't have any major complaints with the A800 and would highly recommend it to anyone looking for a smartphone in this price range.

- Roydon Cerejo



Excellent build and design are some of the stand-out features of the A800.

SPECIFICATIONS

Rs 11,999
www.lavainternational.in

Dimensions (WxHxD): **133 x 67 x 10.5 mm;** Weight: **152 g;** CPU: **Dual-core 1 GHz;** RAM: **512 MB;** Display: **4.5-inch TFT LCD, 960 x 540 pixels;** Camera: **8 MP with autofocus and LED flash;** Storage: **4 GB;** Video: **720p @30 fps;** OS: **Android 4.0 ICS**

CONTACT	LAVA International Ltd
PHONE	0120-4637333
EMAIL	infor@lavainternational.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

A VALUE FOR MONEY DROID FOR THOSE ON A BUDGET.



TABLET

Lenovo A2107

VERDICT: A decent tablet that can last you longer than most Chinese ones.
FOR: Good build quality; dual-SIM; 16GB storage.
AGAINST: Single-core processor; tad expensive.

The Lenovo A2107 is a dual-SIM GSM+GSM/WCDMA tablet. It runs on a 1GHz Cortex A9 CPU, a PowerVR SGX531 GPU and has 1GB of RAM. It has a 7-inch, 1024 x 600-pixel LCD display, a 2 megapixel rear camera and a front-facing VGA camera. You get a generous 16GB of storage space, of which only 12.5GB is usable. You can increase storage space via microSD cards, though. Connectivity options include Wi-Fi, Bluetooth 4.0, GPS, WCDMA 3G, a microUSB port and support for USB OTG. The tablet runs on Android 4.0 Ice Cream Sandwich.

Lenovo has done a pretty good job on the build and design front. The A2107A has a very rugged frame and the shell is made from plastic with a matte-finished, rear panel. There are no physical or capacitive buttons on the front.

The tablet's display reproduces colours well and the brightness levels are good too. Overall, the display is good enough and watching videos is enjoyable. We put the A2107A through our standard benchmark process and found that the Ideatab performs almost 30 percent faster than the most other single-core tablets. This is probably thanks to the higher amount of RAM the tablet has.

- Francis D'sa

SPECIFICATIONS

Rs 14,000
lenovocentral.lenovo.com

Dimensions (WxHxD): **192 x 121.8 x 11.5 mm;** Weight: **400 g;** CPU: **MTK 6575 1 GHz;** RAM: **1 GB;** Display: **7-inch 1024 x 600 pixels;** Storage: **16 GB;** Connectivity: **Wi-Fi, 3G, micro USB**

CONTACT	Lenovo India
PHONE	1800-425-2666
EMAIL	eservice@lenovowarranty.co.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

TABLET

Spice Stellar Pad MI-1010



VERDICT: Recommended if you want a large-screen tablet on a budget.
FOR: High resolution screen; IPS display; good performance.
AGAINST: Almost none.

The Spice Stellar Pad MI-1010 is powered by a dual-core 1.5GHz processor and a MALI-400 GPU. It has 1GB of RAM and 16GB of storage space, expandable up to 32GB via microSD cards. The Stellar Pad MI 1010 has a 10-inch, LCD 1280 x 800-pixel IPS display and an aspect ratio of 16:9.

One could mistake it for an iPad from afar, but the 16:9 screen and the missing home button give it away. The MI-1010 is designed well and looks good with its rounded edges and a matte-finished, silver metal back panel. There's a 3 megapixel shooter on the rear and a 0.3 megapixel one on the front.

The Stellar MI-1010 runs Android 4.1 Jelly Bean. The UI is stock Jelly Bean and a tad jittery, but is smooth enough for us not to have any complaints. The manufacturer has overclocked the processor to run at 1.6GHz to improve performance.

The display quality on the Stellar Pad MI-1010 is very good. The colours are rich, the brightness and contrast levels are just right, and the picture quality is crisp and clear. The viewing angles are superb and there are no glitches whatsoever. The built-in stereo speakers are very loud, but are a bit too sharp with extreme highs and mids. You might need to turn down the volume to avoid being irritated, as the quality of audio emanating from the speakers isn't exactly impressive.

- Francis D'sa

SPECIFICATIONS

Rs 17,999
www.spice-mobile.com

Dimensions (WxHxD): **259x174x10 mm;** Weight: **667 g;** Display: **10-inch HD TFT IPS, 1280 x 800 pixels, CPU: 1.5 GHz dual-core;** GPU: **MALI-400;** RAM: **1 GB;** Storage: **16 GB;** Connectivity: **Wi-Fi, 3G via dongle;** Battery: **7600 mAh.**

CONTACT	Spice Mobile
PHONE	022-61190509
EMAIL	mediarelations@smobility.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

TABLET

DELL LATITUDE 10

FOR: Low cost; light and rugged; removable battery.
AGAINST: Low-res screen; Atom CPU; limited connectivity.



Dell's Latitude 10 is probably the only tablet in the world with a removable battery. It's staid and sober, and doesn't bother with multimedia bells and whistles. It has no keyboard dock and no transforming body. A plastic stylus is included for scribbling notes. The bezel around the screen is wide, and the sides and back are encased in rubberised plastic for good grip. There's a USB 2.0 port on the right edge, along with a mini HDMI output and a 3.5mm headset port. You also get a power button, a rotation lock button, an SD card slot, twin stereo microphones, a volume rocker and a Kensington security slot. You can charge the tablet using its dock connector or a micro USB port. There's Wi-Fi and Bluetooth for wireless connectivity, but cellular data wasn't supported on the unit we tested.

The front panel has the Windows 8 Start button and the nearly invisible front-facing camera and LED indicator. The 30 Watt-hour battery we got fits flush with the rear panel, but an optional 60 Watt-hour pack will stick out around 5mm. Above it, you'll find an 8 megapixel camera with LED flash.

The 16:9, 1366 x 768-pixel LED-backlit IPS screen has excellent viewing angles but looks poor next to competitors with 1080p or better screens. The screen can detect 10 touch points and has an active digitiser for the bundled stylus.

Built-in storage tops out at 64GB and there's 2GB of DDR2 RAM. Dell's Latitude line is targeted at businesses and comes with options for specialised on-site service, remote management, data protection, etc. The device uses Intel's Trusted Platform Module 1.2 architecture for encryption and security.

The Latitude 10 is hamstrung by its dual-core Clover Trail-gen Atom CPU, which has integrated graphics, but Core CPUs are much more powerful.

Windows 8's Modern interface and apps are easy to use on the touchscreen but you'll want to keep that stylus handy for buttons in desktop programs. We missed the ability to clip this tablet into a keyboard dock. With only a single USB port and no way to prop it upright, there isn't much flexibility for connecting peripherals. There's no slot in the tablet's body to store the pen, so misplacing it might be easy.

Performance was low, with benchmark scores at roughly one-third the power of today's Ultrabooks. You'll be fine surfing the Web, watching movies and editing documents in Microsoft Office, but not much else. The cameras are nothing special either. The battery lasted 4 hours, 55 minutes in our Battery Eater simulation.

The Latitude 10 is a full-fledged PC that costs and weighs as much as an iPad, but it's hard to imagine an Atom-powered tablet being able to replace a desktop PC or laptop for any working professional. The cost might be low, but you're looking at an extra Rs 15,000 at least if you want to buy a docking stand and add a monitor, keyboard and mouse. The Latitude 10 is a therefore a supplementary device for those who can afford a tablet in addition to their main work PC. It can be used for taking notes, running presentations and staying connected while travelling—but that's about it.

- Jamshed Avari



The stylus comes in handy when clicking on small buttons, but there's no slot to keep it safe.

VERDICT

A UNIQUE TABLET SUITED TO COST-CONSCIOUS BUYERS AND TRAVELLERS.

SPECIFICATIONS

Rs 35,990
www.dell.co.in

CPU: **Intel Atom Z2760**; RAM: **2 GB DDR2-800**;
Screen: **1366x768, IPS**; Storage: **64 GB eMMC**;
Connectivity: **Wi-Fi a/b/g/n, Bluetooth 4.0**

CONTACT	Dell India
PHONE	1800-425-4026
EMAIL	NA

RATINGS

ERGONOMICS	★★★★☆
FEATURES	★★★★☆
PERFORMANCE	★★★☆☆
OVERALL RATING	★★★★☆
VALUE FOR MONEY	★★★★☆

Network 18







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LAPTOP

HP ENVY X2

FOR: Excellent build; comfortable to use in tablet mode; NFC; good battery life.
AGAINST: Heavy when docked; underwhelming performance; expensive.

The trickle of hybrid notebooks is soon turning into a steady flow here in India. We got a little taste of this new segment from the Dell XPS 12, and it's now the HP Envy X2's turn. HP has gone with an Asus Transformer-like design approach with the X2: the entire screen is detachable from the keyboard dock. The trade-off here is that you won't be able to quickly transform it into notebook mode when travelling, unless you're carrying the keyboard with you. This also happens to be one of the more affordable hybrid notebooks in the market, so let's see how HP has managed to pull it off.

The entire chassis of the device is built using aluminium, which means there's no flex whatsoever around the screen bezel or the edges. The X2 is designed along the lines of the Envy notebooks. We have sleek lines, rounded edges and lots of attention to detail. The lid of the X2 features a brushed aluminium finish, so it'll be relatively free of fingerprints.

Besides the logo in the middle, we have an 8 megapixel camera with LED flash and ergonomically-placed power and volume buttons on either side for tablet use. We even have a microSD card slot at the bottom of the tablet. The Envy X2 runs on Windows 8 and packs an 11.6-inch IPS display with a 1366 x 768-pixel resolution. The resolution is a little low compared to higher-end hybrids and the difference is immediately apparent. If this were a standard notebook, it wouldn't be too bad, but since you'll also be using it as a tablet, the closer you hold it, the more pixels you can see.

At the heart of the Envy X2 beats an Atom Z2760 Clover Trail SoC. Just like Medfield was created for smartphones, Clover Trail was designed for tablets and hybrid PCs. This is currently the only SoC available from Intel and is designed using Sandy Bridge's fabrication process. Some of the highlights of the SoC include Intel Burst Technology for dynamic scaling of CPU cores, Hyper Threading, support for up to an 8 megapixel camera, GPS, sensors and hardware-level security. The SoC consists of two x86 cores running at 1.8GHz and a PowerVR SGX545 GPU for graphics processing.

Windows 8 runs smoothly and switching between Modern UI and desktop mode is quite seamless. Copying files to and from the notebook is quite slow as the read and write speeds are nowhere near those of even the slowest SSD. The Z2760 prides itself on its ultra-low TDP and that reflects very well in Envy x2's battery life. Using Battery Eater Pro, we managed to squeeze out about 7 hours and 30 minutes before it died.

At Rs 59,990, the HP Envy X2 feels quite expensive for an Atom-based notebook. Even a Core i3 CPU would have been welcome at this point. The only reason one should pick this over the similarly-priced Windows RT tablets is that you can still use legacy x86 apps. It does have very good battery life and plays 1080p video like a champ, but if that's all you're looking for, then you're better off with an iPad or any Android tablet and a keyboard dock.

- Roydon Cerejo



Brilliant design makes it very comfortable in tablet mode.

SPECIFICATIONS

Rs 59,990
www8.hp.com/in/en/home.html

Dimensions (WxHxD): **303 x 19 x 206 mm;** Weight: **1.39 Kg;** CPU: **Intel Atom Z2760;** RAM: **2 GB;** Hard disk: **64 GB;** GPU: **Onboard;** Display: **11.6-inch, 1366 x 768;** Other features: **Bluetooth, webcam and card reader, NFC**

CONTACT	Hewlett Packard India
PHONE	011-26388000
EMAIL	NA

RATINGS

BUILD QUALITY	★★★★½
ERGONOMICS	★★★★½
FEATURES	★★★★½
PERFORMANCE	★★½☆☆
OVERALL RATING	★★★½☆
VALUE FOR MONEY	★★½☆☆

VERDICT

A BRILLIANTLY DESIGNED HYBRID MARRED BY ITS HIGH PRICE.



LAPTOP

SAMSUNG ATIV SMART PC PRO

FOR: Full HD display; powerful configuration; detachable design.
AGAINST: Average build of the keyboard dock; USB port should have been on the side.

Hybrid laptops seem to be the mantra for all laptop manufacturers these days. Samsung's offering in this segment is the ATIV series, which currently comprises two models for the Indian market—ATIV Smart PC Pro 700T and Smart PC 500T1C. We got our hands on the former, which competes with premium offerings by other brands.

Samsung has gone with a detachable design for both the models in the ATIV series. The ATIV bundles a keyboard dock—a physical keyboard and a touchpad—and you get two USB ports (one on each side). That said, the detachable design makes the Samsung ATIV Smart PC primarily a tablet with the ability to transform into a laptop should the need arise.

The core of Samsung ATIV Smart PC Pro comprises of a 1.7GHz Core i5-3317U processor, 4GB RAM and 128GB SSD. The most striking feature is the crisp 11.6-inch full HD display. As for connectivity, you have Bluetooth and Wi-Fi. Most of the buttons and ports are placed at the top. The top panel of the laptop houses a headphone/mic combo jack, a power button, a screen orientation button and a USB 3.0 port covered by a plastic flap. Towards the right lies a microSD card slot. The left side has a micro HDMI port and volume rocker. All this is tightly packed in a slim 11.89 mm thick shell. The digitiser is a bonus feature and you get a pen (called S Pen) that resides in a housing at the back. The biggest weakness of the Samsung ATIV Smart PC Pro is its average build quality. The shell is made of plastic and the rear has a brushed metal-like finish. The device looks good, but it feels a bit plasticky. The build of the keyboard dock is even worse—its hinge didn't feel strong enough to bear the weight of the tablet.

The performance of the Samsung ATIV Smart PC Pro was close to that of the more-expensive hybrids with a similar configuration. The sequential read and write speeds of 439MB/s and 247MB/s are commendable but slightly slower than the competition. The same goes for 4117 and 10017 points in PCMark 7 and 3DMark Vantage respectively. With a powerful configuration, you can rest assured that tasks such as full HD video playback, video transcoding and basic everyday applications will run buttery smooth. The battery life is one area where the ATIV Smart PC Pro takes the lead. It lasted for 2.5 hours after a full charge with Battery Eater Pro running in Classic mode and Wi-Fi disabled.

The Samsung ATIV Smart PC Pro is cheaper than Dell XPS 12 and Sony Vaio Duo 11 by more than Rs 10,000. Being better value for money is arguable because of the average build quality and ergonomics, but you get almost the same configuration for much less.

- Anand Tuliani



All the ports in the ATIV Smart PC Pro are protected by a port flap.

SPECIFICATIONS

Rs 75,490
www.samsung.co.in

Dimensions (WxHxD): **304 x 22.34 x 189.4 mm;** Weight: **1.6 Kg;** CPU: **Intel Core i5-3317U;** RAM: **4 GB;** Storage: **128 GB SSD;** Display: **11.6-inch, 1920x1080;** USB 3.0 ports: **1;** Camera: **2 MP front and 5 MP rear;** OS: **Windows 8, 64-bit**

CONTACT	Samsung India
PHONE	1800-3000-8282
EMAIL	NA

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

A HYBRID WITH A DETACHABLE DESIGN BUT AVERAGE BUILD.



LAPTOP

SONY VAIO DUO 11

FOR: Full HD display; powerful configuration; backlit keyboard.
AGAINST: Cramped keyboard; restrictive design.

Sony's hybrid laptop, the Vaio Duo 11 sports a striking design that helps it transform from a tablet into an Ultrabook. While it may come across as unique, this is not the first time we're seeing such a design. From the closed position, you have to gently lift the top of the display and slide it outward to transform it into an Ultrabook. We first saw such a design in the Asus Eee Pad Slider, a 10.1-inch Android tablet.

The Vaio Duo 11 runs the Intel Core i5-3317U processor, and packs 4GB of RAM and a 128GB solid state drive, which make for stellar performance and blazing file transfer speeds. At 1.3 Kg, the Vaio Duo 11 is pretty light for an Ultrabook, but not quite if you look at it as a tablet.

Sony hasn't compromised much on the feature set despite the compact form. If you notice carefully, you'll see that the chassis is thicker towards the rear of the keyboard—that's where the core resides. Vents are present on the rear to channel the hot air expelled by the CPU cooler. All the ports and jacks are placed on the sides, but towards the rear. On the left you have a D-sub port, a card reader and a 3.5 mm headphone jack. The right side is home to a pair of USB 3.0 ports, an HDMI port and the power button.

The all-black Vaio Duo 11 scores high when it comes to aesthetics. In 'tablet mode', the glossy panel looks attractive, although it would have been nicer had the frame around the display been thinner. It's a fingerprint magnet, so it's advisable to keep a piece of microfiber or lint-free cloth handy to restore the sheen from time to time.

The only thing we liked about the sliding mechanism is that it looks fancy. We found it more gimmicky than practical. The viewing angle, although comfortable, cannot be adjusted. The keyboard is island-type and you may find it hard to type if you have large hands or stubby fingers. Instead of a touchpad, Sony has provided a touch-sensitive nub at the centre of the keyboard. The mouse buttons are placed along the bottom edge. This may work for you, but only if you have tiny hands.

The overall performance of the Vaio Duo 11 is excellent. PCMark 7 reported 4867 points and 3DMark Vantage logged 11356 points in Entry mode. The file transfer speeds you get with the 128GB SSD are blazing fast. CrystalDiskMark logged sequential read and write speeds of 455MB/s and 241MB/s respectively. This kind of performance should be more than sufficient to handle light to medium-weight load such as basic everyday tasks. Videos and photos are a treat to watch on the slick Full HD display. Full HD video playback was smooth and speakers are loud and crisp. You can expect the Vaio Duo to survive for about an hour and a half more than a regular notebook.

Even if it was cheaper by a few thousand rupees, we would still suggest you consider other options because the Vaio Duo 11's keyboard and pointing device can be quite frustrating to use. We feel Sony should have concentrated more on ergonomics instead of focusing mainly on style.

- Anand Tuliani



Accessing the area behind the screen would be difficult should you need to clean.

SPECIFICATIONS

Rs 89,990
www.sony.co.in

Dimensions (WxHxD): **319.9 x 17.85 x 199 mm;** Weight: **1.305 Kg;** CPU: **Intel Core i5-3317U;** RAM: **4GB;** SSD: **128GB;** Display: **11.6-inch, 1920x1080;** Camera: **Full HD front and rear;** USB 3.0 ports: **2;** Connectivity: **HDMI out, card slot, Wi-Fi, Bluetooth and NFC**

CONTACT	Sony India
PHONE	1800-103-7799
EMAIL	sonyindia.care@ap.sony.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

SPORTS AN ATTRACTIVE DESIGN BUT HAS ITS SHARE OF PROBLEMS.



LAPTOP

LENOVO IDEAPAD YOGA 11

FOR: Powerful SoC; very good battery life; ergonomic design; sturdy.
AGAINST: Poor build; Windows RT is pointless right now.

The Yoga gets its name from its ability to bend according to your seating position. It can morph into standard laptop mode, tablet mode, tent mode and stand mode. This is possible thanks to a cleverly designed hinge system that allows you to twist the screen all the way back to 360 degrees. The chassis is made up of a scratch-resistant plastic shell that looks and feels extremely tough and durable—even the keys didn't seem to do much damage. The Yoga is quite slim and light, too, at around 1.27 Kg, so it's actually quite comfortable to use in tablet mode. Single handed operation is still not possible for prolonged periods of time, unless you have forearms like Popeye.

The power button is placed on the front instead of the inside, so it can be powered on in any mode. Ports include a full-sized HDMI port, two USB 2.0 ports, a headphone jack and an SD card slot. There's no LAN jack or mciroSD card slot. Physical buttons include a volume rocker and an orientation lock switch. There are speaker grilles placed on either side of the notebook for stereo sound. The palm rest area inside has a rubberised, anti-scratch coating as well, and the matte-finished keys look like they can stand the test of time. The screen doesn't have too much flex to it and the LCD doesn't distort either, which is good. The lower half, however, is quite flimsy and slight pressure near the trackpad area causes quite a bit of flex.

The true beauty of the Yoga is when you bend the screen beyond its typical inclined position. The double hinge mechanism automatically disables the keyboard and trackpad once you fold the lid beyond 180 degrees. This second hinge then kicks in, allowing you to fold the laptop all the way around the back so that it becomes a tablet. Lenovo has pulled this off in spades and the hinges feel really strong and durable and don't wobble at all. Lenovo claims up to 13 hours of battery life and we did manage to achieve close to 11 hours.

The IdeaPad Yoga 11 carries a price tag of Rs 61,790, but you can find it online for roughly Rs 56,000. All said and done, the Yoga 11 is nothing more than a tablet with a keyboard and should not be mistaken for a real notebook. Windows RT is the main culprit here as it's very limiting in terms of app support. The good thing is that you get a familiar working environment with Windows, but you can't really do much with it since none of your standard EXE files will work and there isn't any Modern app equivalent for most of them either. What you're left with is a notebook that's good for a bit of gaming, HD video playback, working on Office documents and Internet surfing—all of which can be done on an Android or iOS tablet, which are a lot cheaper. The Yoga 11 would make an excellent buy at about Rs 30,000 or less, but nothing more than that would be justifiable.

- Roydon Cerejo



The double-hinge works beautifully making it one of the most ergonomic hybrids around.

SPECIFICATIONS

Rs 87,599
www.lenovocentral.lenovo.com/

Dimensions (WxHxD): **298 x 16x 204mm;** Weight: **1.27 Kg;** CPU: **Nvidia Tegra 3;** RAM: **2 GB;** Hard disk: **64 GB;** GPU: **Onboard;** Display: **11.6-inch, 1366 x 768;** Other features: **Bluetooth, webcam**

CONTACT	Lenovo India
PHONE	1800-425-2666
EMAIL	eservice@lenovowarranty.co.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

A BEAUTIFULLY DESIGNED HYBRID THAT'S PRICED A TAD TOO HIGH.



LAPTOP

ACER ASPIRE S7

FOR: Excellent build; very powerful; decent battery life; slim, good bundle.
AGAINST: Gets noisy under stress, keyboard is not too comfortbale.

The Aspire S7 has a killer design and is guaranteed to turn heads as soon as you take it out of your bag. It features an incredibly sleek aluminium body that's just 12.2mm thick when closed. Add to this the diamond-like mosaic pattern on the lid and we have one extremely good looking notebook. The body is scratch-resistant and so is the glass protecting the screen, which happens to be Corning's Gorilla Glass 2. The hinge is incredibly sturdy as well and opens to almost 180 degrees. Despite the slim chassis, the S7 features two USB 3.0 ports, a headphone jack, a microSD card slot and a microHDMI port around the back. The Ultrabook also features two break-out adapters for LAN and VGA. The LAN adapter is powered by a USB port, whereas the VGA adapter slots into the microHDMI port. You could alternately also use a microHDMI to HDMI cable. Also in the box is the charging adapter, a carrying pouch and an expandable battery pack. This secondary battery strip clips onto the back and docks with the charging port, thereby extending the S7's battery life. You can use the notebook without the battery pack as well, if you don't want the excess bulk. The battery is completely sealed up and we have large vents at the back for releasing the hot air. The dual-fan mechanism of sucking in cool air from one end and releasing it from the other keeps the Aspire S7 quite cool under normal working conditions.

Speaking of displays, the S7 crams in 1920 x 1080 pixels into an 11.6-inch screen, resulting in extremely sharp images and text. The LED backlit TFT LCD display is also very bright, so you can easily use it outdoors. The model we received (MS2363) is powered by an Intel Core i7-3517U running at 1.9GHz. RAM maxes out at 4GB and we have SSDs in RAID 0 configuration racking up the storage capacity to 256GB. This sort of SSD configuration is the first we've seen in Ultrabooks and should blow the roof off when it comes to read/write speeds. The S7 runs on Windows 8 64-bit and comes bundled with McAfee trial version and some Acer apps like cloud storage, maintenance, backup and restore, etc.

The Acer Aspire S7 is easily one of the most powerful Ultrabooks you'll find in the market. This has more to do with the two SSDs in RAID. The read and write speeds are off the charts and are easily more than double the speeds we've seen in Ultrabooks to date. What's really remarkable is that Acer has managed to fit all of this into such a slim chassis. Windows 8 is already known to be quick, and on the S7, it simply flies. There is almost no waiting time for opening and installing apps, and loading times for anything are almost non-existent.

The 11.6-inch model of the Acer Aspire S7 retails for Rs 87,599, which is not too bad, all things considered. Our only gripes with the notebook are the not-so comfortable keyboard and that it gets quite noisy once the fans kick in. If you are shopping for a high-end, lightweight Ultrabook then we highly recommend the Acer Aspire S7.

- Roydon Cerejo



Super slim yet power-packed, the S7 has a significant advantage over its competition.

SPECIFICATIONS

Rs 87,599
www.acer.co.in

Dimensions (WxHxD): **284.48 x 12.7 x 195.5 mm;** Weight: **1.22 Kg;** CPU: **Intel Core i7-3517U;** RAM: **4 GB;** Hard disk: **256 GB;** GPU: **Onboard;** Display: **11.6-inch, 1920 x 1080;** Other features: **Bluetooth, webcam, microSD card, backlit keys, external battery**

CONTACT	Acer India
PHONE	080-39408700
EMAIL	ailenquiries@acer.co.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

EASILY ONE OF THE BEST PREMIUM ULTRABOOKS WE'VE SEEN YET.



DIGITAL CAMERA

CANON POWERSHOT G15

FOR: Excellent optics; incredible image quality; very good noise handling; rugged build.

AGAINST: Lens barrel obstructs view from the viewfinder.

Canon's PowerShot G-series of compact digital cameras has everything it takes to bring smiles to enthusiasts. Tough build, brilliant optics, lots of external controls and stellar performance are only a few of the many great things about the cameras from the series. The latest addition to the series is the G15, which is an upgrade to the G12, which was launched in 2010.

At 1/1.7-inch, the size of the sensor used in both the models is larger than the usual 1/2.3-inch type sensors used in mainstream digital cameras. However, the resolution has been bumped from 10 to 12.1 megapixels. The optics used in the G15 are to die for! The lens used in the G12 was 28 mm at the wide end and extended to 140 mm, thus translating to 5x optical zoom. The G15 too uses a 5x zoom lens with the same focal length, but it's way brighter. The G15 has a large f/1.8 aperture at the wide end, and you can stick to f/2.8 throughout the zoom range. This allows for handheld shooting in low light without using flash. Next in the list of upgrades is the display. A bump from a mediocre 461k dot to 922k (twice as dense) is a welcome change. It has been noted that while Canon upgrades or adds new features, they take away some useful features. For instance, the G12 had a fully articulating display that allowed you to capture creative shots from odd angles. The G15 does away with this feature and uses a fixed display, which seems to have been done to make the camera slimmer. This has helped making the G15 slimmer than the G12 by 8 millimetres.

Design-wise, the G15 looks very similar to the G12, except for the subtle changes when you view it from the front. The rubberised grip is slightly larger because the horizontal dial now uses less space. Also, the top right corner is now empty because Canon has chosen to go in with pop-up type flash—there's a tiny lever behind the flash that releases it. The rear of the camera is dominated by the 3-inch LCD display. To the right lies a control panel, which comprises of a 5-way D-pad with a jog dial and buttons for metering modes, focus area and menu.

The build quality of the G15 is impeccable. The front of the shell is made of aluminium and has a rough, grainy finish that lends a rugged feel. Plenty of external controls and their ergonomic placement contribute to easy, tireless shooting.

We first tested the G15 in low light—we took it out for a spin at night and took shots with flash disabled and the ISO set between 400 and 1600. We thought it would be challenging for the camera to handle noise and deliver well-exposed shots, but the results amazed us. You can rest assured you'll get great-looking results even at ISO 1600.

The PowerShot G15 may come across as being highly overpriced, but you get performance close to that of an entry-level DSLR in a pocketable form.

- Anand Tuliani



Plenty of external controls and good user interface make the G15 a breeze to use.

SPECIFICATIONS

Rs 34,995
www.canon.co.in

Dimensions (WxHxD): **106.6 x 75.9 x 40.1 mm;** Weight: **352g (with battery);** Resolution: **12.1MP;** Focal length: **28-140mm;** Optical zoom: **5x;** Aperture: **f/1.8-f/2.8;** Shutter speed: **15-1/4000 sec;** ISO range: **100-12800;** LCD display: **3-inch, 922k dots;** Video recording: **1920x1080**

CONTACT	Canon India Pvt Ltd
PHONE	0124-4160000
EMAIL	info@canon.co.in

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

VERDICT

PERFORMS ALMOST LIKE AN ENTRY-LEVEL DSLR CAMERA.

DIGITAL CAMERA

NIKON COOLPIX S800C



FOR: OLED display; good photo quality; good build; Android OS.
AGAINST: The UI of the camera could have been better.

The Nikon Coolpix S800c is the first digital camera to run Android. More than the optics and other features related to shooting, it's the hardware that powers the camera that's more interesting. The S800c runs a 1.6GHz ARM v7 processor. The other components include 512MB RAM, a PowerVR SGX 540 graphics processor and 1.7GB of storage.

Nikon has taken a simplistic approach with the S800c. The lack of 3G connectivity means you need to be near a Wi-Fi hotspot to be able to share photos and videos. Also, Nikon has chosen to stick to the stock Android Gingerbread UI with the shortcuts for camera and playback placed on either side of the app drawer button.

By the look of it, this 16 megapixel shooter comes across as a travel zoom digital camera. Unlike the Galaxy Camera, it's not too large and should easily fit in your trouser pocket. The front of the camera sports a focus-assist LED lamp, stereo microphones and a tiny flash strobe at the top right corner. The rear of the camera sports a large 3.5-inch OLED display and physical buttons for Home, Menu and Back.

The lens used in the S800c isn't extraordinary. It's nice and wide at 25 mm and extends to 250 mm, which translates to 10x optical zoom. The f/3.2 aperture at the wide end is about average as is f/5.8 at the telephoto end. Don't expect extremely shallow depth of field (background blur) and miracles in low-light. The camera function is provided via the Camera app, which thankfully isn't the stock app. You get only the Smart Auto mode and the Auto mode, which is equivalent to Program mode, but with limited options. You can adjust the ISO, resolution, white balance and burst mode, but not the metering mode and flash intensity. EV, Macro, self-timer and flash can be activated via the icons in live view. The other modes include Scene presets and Special effects (Soft, Sepia, High-contrast Monochrome, High key and Low key). Filter effects such as Selective colour, Fisheye and Miniature can only be applied in playback mode.

The S800c is very good at what's easy for most digital cameras. Use it indoors, shoot macros, take it out on a bright sunny day and you'll get great results. The reproduction of colours and details was excellent in indoor and macro shots. It did well in our ISO test—the colours and details were handled very well when set at up to ISO 400. However, raising the ISO to 800 or higher results in excessive luminance noise in the form of grain and colour noise. The outdoor shots looked good, but the camera tends to blow out the highlights in brightly-lit zones. Also, the details in distant objects weren't too pronounced. Considering the S800c lacks good zoom range and manual modes, and gives performance that doesn't match up to other cameras in its price range, its asking price is too high.

- Anand Tuliani



Capacitive touch-sensitive buttons would have been better than the physical buttons.

VERDICT

THE SMARTEST CAMERA IN ITS SEGMENT, BUT NOT THE BEST.

SPECIFICATIONS

Rs 20,950
www.nikon.co.in

Dimensions (WxHxD): **111.4 x 60.0 x 27.2 mm;** Weight: **184 g;** Resolution: **16 MP;** Focal length: **25-250 mm;** Optical zoom: **10x;** Display: **3.5-in, 854x480, OLED;** ISO range: **125-3200;** Aperture: **f/3.2-5.8;** OS: **Android 2.3.3**

CONTACT	Nikon India Pvt Ltd
PHONE	0124-4688500
EMAIL	nindsales@nikonoa.net

RATINGS

BUILD QUALITY	✪✪✪✪✪
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪



NETWORK ATTACHED STORAGE

QNAP TS-269L

VERDICT: A great, versatile NAS for home and SMB users.
FOR: Rugged build; loads of features; Full-HD media playback.
AGAINST: Expensive; no LCD display.

The QNAP TS-269L is an all-in-one, feature-rich NAS server that lets you share files securely across various platforms. It can support single drive, RAID 0, RAID 1 and JBOD configurations. The NAS is powered by an Intel 1.8GHz dual-core CPU and has 1GB of RAM (expandable up to 3GB). The OS runs on a 512MB Disk-On-M and the two storage bays can hold a maximum of two 2.5-inch or 3.5-inch SSD or HDD drives. Each bay can support drives up to 4TB in size—a total of 8TB of storage via RAID or JBOD. The two bays have hot-swappable trays, so you can add or replace drives even when the NAS is running.

The highlight of the NAS is the HD Station, which can playback full HD media content directly via HDMI. You can also use the HD station to browse the Internet using built-in apps such as Chrome and connecting a USB keyboard and mouse.

The TS-269L looks like a small toaster. It has a metal chassis with a plastic bezel. The front panel has four status LEDs (HDD1, HDD2, LAN and eSATA), two backlit buttons—power and one-touch copy—and a USB 2.0 port. The rear panel sports two USB 2.0 and 3.0 ports, an eSATA port, two Gigabit Ethernet ports, an HDMI interface and a power jack.

- Francis D'sa

SPECIFICATIONS

Rs 38,300
www.qnap.com

Dimensions (WxHxD) 102x150x216 mm; Weight: **1.74 Kg, Processor: Intel Atom Dual-core 1.8 GHz, RAM: 1 GB, DOM: 512 MB;** Operating system: **Turbo NAS 3.8.1;** Interfaces: **3 x USB 2.0, 2 x USB 3.0, 1 x eSATA, 1 x HDMI, 2 x Gigabit Ethernet;** Storage: **2 x SATA 2.5-inch SSD or HDD drives, Storage options: RAID 1/0, JBOD**

CONTACT	Qnap Inc
PHONE	9953036535
EMAIL	sanjay@qnap.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

SMARTPHONE

Swipe Fablet F1

VERDICT: An expensive single-core Android phone.
FOR: Good build quality; crisp display
AGAINST: Single-core processor; high price.

The Fablet F1 resembles the Samsung Galaxy Note to an extent. It is a tad heavy and has a bulky build. Its body is swathed in black with a dark chrome lining around the sides and a matte-finished rear panel.

The phone is powered by a single-core 1GHz Scorpion CPU and a PowerVR SGX 531 GPU, backed by 512MB of RAM. The 5-inch capacitive LCD display sports a resolution of 480 x 800 pixels. You get 4GB of onboard storage, expandable up to 32GB via microSD cards. The F1 is a dual-SIM (GSM) phone; one slot supports WCDMA too. The rear sports a 5 megapixel camera with LED flash while the front has a simple VGA camera. On the connectivity front, the F1 is equipped with Wi-Fi 802.11 b/g/n, Bluetooth and a micro USB 2.0 interface.

The user interface is not as smooth as one would expect, but the single-core CPU might be to blame. However, the overall user experience is not so bad.

The F1 sports a 5-inch display with a resolution of 480 x 800 pixels, and overall, it is not as bad as we expected it to be. Videos and photos looked pretty good and crisp, and the reproduction of colours and contrast is very good. The 5 megapixel camera is average, but it's slightly better than cameras on other budget phones. It manages to do a decent job even in low-light areas without needing flash.

- Francis D'sa



SPECIFICATIONS

Rs 9,490
www.swipetelecom.com

Dimensions (WxHxD): **80 x 145 x 11.4 mm;** Weight: **216 g;** Display: **5-inch LCD, 480 x 800 pixels;** CPU: **1 GHz, GPU: PowerVR SGX 531;** RAM: **512 MB;** Storage: **4 GB;** Battery: **2500 mAh;** Operating system: **Android ICS**

CONTACT	Swipe India
PHONE	8380015959
EMAIL	info@swipetelecom.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

WI-FI ROUTER

Linksys EA4500



VERDICT: A smart router ready for the next level of wireless and cloud computing.
FOR: App control; cloud computing options; fast; looks good.
AGAINST: Not wall-mountable; no 3G USB dongle support; expensive.

Next generation routers are trickling in slowly, but not many are paying attention to users' requirements. Linksys' EA4500 is a high-speed wireless N router and supports simultaneous dual-bands of 2.4 GHz and 5 GHz. The router is a fantastic looking piece of hardware with a matte-finished, rubberised top and a perforated bottom for effective heat dissipation. It places itself horizontally on the desktop, but cannot be wall-mounted, which could be a put-off for some. There are a total of six internal antennae (three each for transmission and receival) for effective data transmission.

Five gigabit ports (1 x WAN included) can be seen on the rear panel, apart from the WPS and reset switches, the power jack and a USB 2.0 port. The USB port supports only printers and storage devices—sadly, 3G Internet dongle support is lacking here. Setting up the router is pretty simple: it has a completely new graphical interface. Additionally, Cisco has developed modular apps that can be installed into the router for additional features such as client monitoring, bandwidth distribution, security cameras and even parental control.

- Francis D'sa

SPECIFICATIONS

Rs 14,999
www.linksysbycisco.com

Dimensions (WxHxD): **304 x 233 x 71 mm;** Weight: **350g;** Wireless: **802.11 N dual band 2.4GHz and 5GHz;** Throughput speeds: **450Mbps + 450Mbps;** Interface: **4 x Gigabit LAN, 1 x Gigabit WAN, 1 x USB 2.0**

CONTACT	Cisco
PHONE	1800-419-5797
EMAIL	consumersales-india@cisco.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪



WI-FI REPEATER

Digisol DG-WR3001N

VERDICT: A good companion for frequent travellers.
FOR: Can reach speeds up to 300 Mb/s; client mode; good build.
AGAINST: No USB and 3G support.

The Digisol DG-WR3001N can help relay or repeat your existing wireless network at home or office. It is very similar to the D-Link DIR 505 in terms of looks—it is shaped like a power adapter and plugs into a wall socket. The front face features a WPS switch and status LEDs for Signal, WLAN, LAN, WPS and power. The left side sports an RJ45 connector and the right houses the physical mode selection switch, which sets the device on access point, repeater or client mode. The DG-WR3001N complies with the IEEE 802.11 b/g/n wireless standard and has a data throughput of up to 300 Mb/s. We tested the device and found it easy to configure. You will need to configure the network using a web browser if you want to use it in AP or client mode. The repeater mode does not necessarily need any configuration as it can be set up by pressing the WPS button. The repeater connects to the host router and configures the SSID and security passwords automatically. We found the DG-WR3001N satisfactory for daily Wi-Fi usage. Video streaming, Internet browsing and data transfer over the wireless network worked fine and we did not feel that the network was actually routed via the repeater. In fact, some of our colleagues did not even know they were automatically connected and routed through the repeater.

- Francis D'sa

SPECIFICATIONS

Rs 2,299
www.digisol.com

Interface: **Wi-Fi 802.11N @ 300 Mbps, 10/100 RJ45 Ethernet LAN;** Modes: **Repeater, Client, AP**

CONTACT	Smartlink Network Systems
PHONE	022-30616666
EMAIL	helpdesk@digisol.com

RATINGS

BUILD QUALITY	✪✪✪✪✪
FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

It's Movie Time!

We took the trouble of scrutinising 10 budget home theatre speaker systems to single out the ones that best shake the walls. BY **FRANCIS D'SA** AND **ANAND TULIANI**

In this day and age of digital entertainment, the desktop computer is one of the most powerful entertainment hubs out there. Now we're not just speaking about listening to music or playing games. These days, people are watching high-definition movies and videos more than ever and computers are increasingly becoming an important part of every living room. They are the only device that can do almost anything under the sun when it comes to entertainment—be it gaming, playing movies and music, streaming videos from one room to the other, recording your favorite television programme, or simply surfing the Internet. But at the end of the day, what's an action movie or a first-person shooter without sound that shakes the walls?

With the numerous game titles launching every month and access to high-definition movies and music growing easier, a personal computer is incomplete without a good set of surround sound speakers. Wouldn't you want to watch the latest movie or play your newest game with great quality surround sound? The most affordable speakers come in the form of simple 2.1 stereo systems, but movies and games feel incomplete without great surround sound. However, how great a speaker system sounds depends entirely on the quality of the set you invest in. Entry-level 5.1 speakers dish out better volume levels and surround sound than basic 2.1 speakers, but they may not necessarily sound better. The bass may be too boomy, the treble may overshadow the vocals, or in the worst case, the subwoofer might be included just so the set could be called a 5.1 system. A good speaker system isn't simply loud, it also delivers a good balance of the high, mid and low frequencies.

5.1-channel speakers are meant for those who really want to enjoy movies, music and games with complete surround sound. The segment starts from budget speakers costing around Rs 3,500 to audiophile-class powerhouses that cost upwards of Rs 25,000. In this roundup, we invited budget multimedia speaker manufacturers to send in the best they had to offer. We had models from known brands such as Creative, Fenda, Zebronics, Intex and Artis. There was quite a large pile of speakers in our test labs, some of which sported funky designs and various features such as FM and direct MP3 playback. Our goal was to find which speaker system offered the best multimedia experience, and which gave the best bang for your buck. Flip over to find out how we tested the systems and which one shook our test labs for real.

Test Process

For a fair comparison, we chose the best of each speaker brand. The speakers were tested on the basis of five parameters—features, build quality, ergonomics, performance, and warranty and support. Let's run through some of the important parameters that were considered in this comparison.

FEATURES: Features are quite often the deciding factor when it comes to a comparison. We started by noting the dimensions of the subwoofer and satellites and logged the technical specifications mentioned by the manufacturer. A higher power rating contributed to a better overall feature score. Details such as the frequency



response, signal-to-noise ratio (SNR) and presence of bass/treble boost controls were also considered and points were awarded accordingly. We noted if a remote control was bundled, and if one was, we went over its type and allotted points according to the variety of controls it offered.

BUILD QUALITY: Here we subjectively assessed the quality of materials used in the construction of the subwoofer and satellites. Speakers built with good quality material, be it wood, fiber or plastic, produce better output. We also assessed the overall quality of the buttons and knobs. Apart from good sound, good aesthetics also matter quite a lot. We rated the aesthetic appeal of each speaker set on a five-point scale. This section contributed to 15 percent of the overall score.

ERGONOMICS: Unlike personal entertainment devices and mobile phones, the user interface isn't very important in the case of speakers. But points such as the ease of setting a system up and configuring it are very important. Setting up a 5.1 speaker system requires connecting the satellites to the subwoofer and hooking up the setup to the computer's sound card or any other sound source. The wires should be long enough and easy to connect. It's also important that the controls are within arm's reach should you want to adjust the bass and treble. An IR remote control is the best option as you can have all the controls at your fingertips.

We also checked whether the power supply was an external one via a power brick or integrated into the subwoofer itself. An integrated power supply creates less cable clutter, but it's easier to replace an external one if anything goes wrong. Secondly, an internal power supply may often affect the sound quality with the EMF it generates and may create a hum in the audio. Also, if the internal power supply fails, you would have to carry the subwoofer to a service center, which can be a big pain if the subwoofer is hefty.

PERFORMANCE: The output quality is the most important parameter for any speaker system. Hence we allotted this section with 40 percent of the overall score. The audio quality was evaluated by playing music and movies. Our test platform was a desktop PC with a Creative Sound Blaster X-Fi Surround 5.1 Pro USB Sound Card, which was used to test the speakers.

MUSIC: We selected a few songs that we thought were the best produced and mastered in their genres and had a certain level of complexity to challenge each speaker set. While listening to each song, we paid very close attention to details such as stereo imaging, and the reproduction of bass, treble and vocals. Each genre exhibits these characteristics in varying proportions. For instance, deep and punchy bass is common to most hip-hop titles, and jazz and orchestral tracks sound best on speakers that can handle all the audio frequencies flawlessly. In addition to songs, we also played the Alan Parson's audio test CD, which comprises tracks featuring sounds of percussion, wind and string instruments.

VIDEO: We picked an intense war scene from the movie Saving Private Ryan that had a variety of sounds, inluding battle tanks firing, gunshots and thunderous bomb blasts. Points were awarded as per the reproduction quality of each of these elements. Additionally, we also selected a music video (Hotel California), which has a good balance of musical instruments and vocals. Each detail was subjectively rated on a five-point scale. This test is meant to deliver an idea of the audio quality you can expect when watching action movies or listening to music.

WARRANTY AND SUPPORT: Speaker systems aren't prone to serious problems because they aren't meant to be mobile, are not very complex and can't be called delicate either. If at all, the power supply or amplifier may cause hiccups, but that's only in the long run. Hence most manufacturers usually offer only a year's warranty and support on speakers. Extra points were awarded to speaker sets that were backed by more than a year's support.

VALUE FOR MONEY: This index indicates how much value for money the speakers offer with respect to the overall features and performance. This will be a good reference if budget is your main priority. A higher index translates into a stronger feature-set and better performance for the price as compared to the other speakers in the roundup.

PERSONAL TAKE



FRANCIS D'SA
francis.dsa@chip.in

After this roundup, I have to admit that manufacturers such as Artis, Intex and Zebronics have improved the quality of audio they deliver. All they need to work on is the look and build quality of the speakers. I was disappointed by the features and audio quality of the Creative speakers—the quality was below average and the set lacks a lot of connectivity options. In addition, the Creative set does not sport a remote controller or individual channel audio control, and the input cables are attached to the subwoofer, making it difficult to replace in case it malfunctions. Also, the controls are located on the satellite, which makes it difficult to take advantage of the wires' length. The speakers have a high-quality build, but fail in terms of features and performance.

On the other hand, those seeking a good quality surround sound speaker kit for their room can surely go in for the Fenda F&D F3000U. The set's sound quality is great compared to the others in this roundup. The price tag is also decent enough. Sadly, the only drawback is the missing display panel. Fenda should have at least incorporated a simple LED display to denote the volume and other basic controls. If you are looking for a cheaper alternative and don't want to cut down too much on audio performance, the Zebronics ZEB-SW8500RUCF is a good choice. It is priced almost Rs 2,500 lower and still delivers a decent audio performance. The looks are decent, there is a basic LED-type display panel and the grilles are removable too for easy maintenance.

If you are looking for a 5.1-channel speaker set, make sure you first check out the basics—sets should have a good build quality and a complete control panel. Finally, if possible, carry along a music player or some music on your phone to know what the the speakers sound like before finalising on a system. Given a choice, I would definitely opt for the F&D F3000U simply due to the great audio quality and the fair price.

F&D F3000U



VERDICT: A good speaker set with rich, crisp and clear audio quality.
FOR: Excellent audio quality; low distortion; good build.
AGAINST: No FM radio; non-removable grilles; no display indicator.

The F&D F3000U proved itself as the best performer in this roundup simply owing to its excellent audio quality. The speakers are built well: the subwoofer has a wooden chassis and the satellites and center speakers are plastic. The subwoofer is not too large and has a reflex port on the front with a basic control panel below it. The controls are entirely digital and you get an IR remote control. Strangely, the control panel does not feature indicators for volume levels. The subwoofer has 5.1-channel audio input via RCA connectors, besides stereo auxilliary input. The speakers also support MP3 and WMA playback via USB drives and SD/MMC/MS cards. The power supply is built-in and the rear of the chassis is partly aluminium, which acts as a heatsink for the power supply unit and as the internal amplifier. The subwoofer has a 5.25-inch bass driver, while the satellites sport single 3-inch drivers each. All the drivers are protected by a non-removable metal grille. The total power output of the speakers is 79 Watts RMS, with the satellites delivering 10 Watts each and the subwoofer pumping out 29 Watts. All the satellites have wall mounts and the wires are lengthy enough too. You can extend the length of the wires as they do not have any connectors.

On the performance front, the speakers deliver rich audio with almost no distortion. The bass is deep and the satellites can reproduce good highs and mids. Music on the speakers made for a great listening experience and watching action movies is equally enjoyable. The F7D F3000U actually outperformed all the other contenders and left them way behind in terms of sheer performance. We definitely recommend this model to those seeking a really good set of surround sound speakers on a low budget.

SPECIFICATIONS

Rs 5,990
www.fndindia.com

Power output: **Satellites-10W, Subwoofer-29W, Total-79W;** SNR: **65 dB;** Frequency response: **28 Hz - 20 MHz;** Inputs: **5.1 RCA, stereo RCA, USB 2.0, SD/MMC/MS Card reader**

CONTACT	Fenda Audio India
PHONE	1800-425-5540
EMAIL	care@fndindia.com

RATINGS

BUILD QUALITY	✪✪✪✩✩
ERGONOMICS	✪✪✪✩✩
FEATURES	✪✪✪✪✩
PERFORMANCE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✩
VALUE FOR MONEY	✪✪✪✩✩

Zebronics ZEB-SW8500RUCF



VERDICT: A decent speaker set for a very good price.
FOR: Low price; decent audio quality; FM radio.
AGAINST: Average build; fixed RCA connectors for satellites.

The Zebronics ZEB-SW8500RUCF is the cheapest 5.1 speaker set out there and its performance isn't all that bad. This speaker has average build quality and the subwoofer and the satellites are made of wood. The subwoofer has a 5.25-inch driver while the satellites have a single 3-inch driver each. The satellites have a removable grille whereas the subwoofer doesn't. The set has a 5.1-channel amplifier that can deliver a total power of 75 Watts RMS. The subwoofer looks decent enough—there's a bass reflex port on the front lower half, a minimal control panel on the top half, besides an SD card slot and a USB port on the top of the bezel. The 5.1-channel inputs and auxilliary connectors are all RCA type. The satellites' wires are long enough, but extensions would call for either cutting the wires or employing male-to-female converters. However, the RCA jacks make connectivity easier.

The satellites are not wall-mountable, which is disappointing. The satellites look like they have two drivers each, but the tweeter is actually a dummy and there's a reflex port hidden behind it.

On the performance front, the speakers deliver average audio quality if the volume is kept low. Increasing the volume causes a bit of distortion, and depending on the audio track playing, it can get irritating. Overall, the audio quality is not too bad, but compared to the rest in the roundup, the ZEB-SW8500RUCF comes third. The speakers are priced low, have a good set of features, are ergonomic and deliver decent audio quality, which entitles it to the Best Value award. We would recommend this speaker set if you're on a very tight budget. But if you prefer better audio quality, invest a little more and opt for the F&D F3000U.

SPECIFICATIONS

Rs 3,599
www.zebronics.info

Power output: **Satellites-15W, Subwoofer-15W, Total-75W;** SNR: **80 dB;** Frequency response: **40 Hz - 20 MHz;** Inputs: **5.1 RCA, stereo RCA, FM stereo USB 2.0, SD/MMC/MS Card reader**

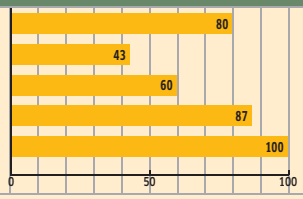
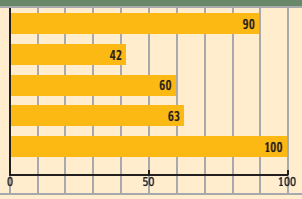
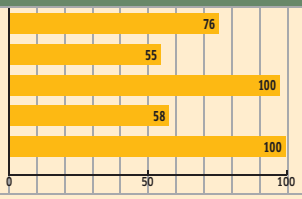
CONTACT	TopNotch Infotronix (I)
PHONE	044-40000007
EMAIL	enquiry@zebronics.info

RATINGS

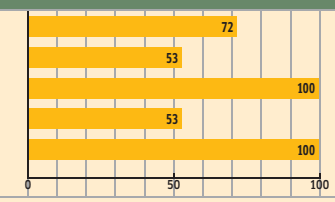
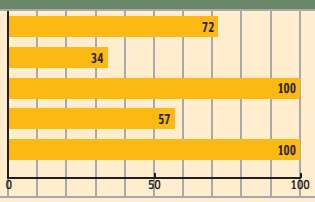
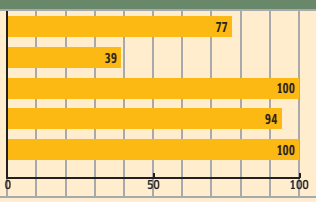
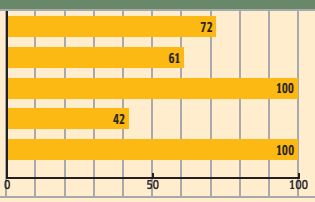
BUILD QUALITY	✪✪✪✩✩
ERGONOMICS	✪✪✪✪✪
FEATURES	✪✪✪✪✩
PERFORMANCE	✪✪✪✩✩
OVERALL RATING	✪✪✪✪✩
VALUE FOR MONEY	✪✪✪✪✪

Nachiket Gujar

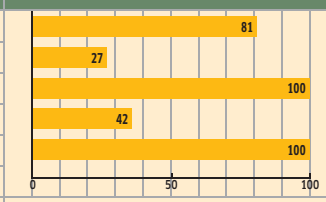
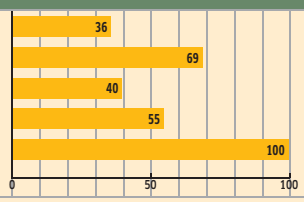
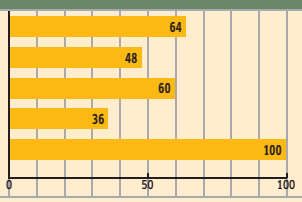
SpecScan

	1	2	3
			
MODEL	**F&D F3000U**	**F&D F6000U**	**ZEBRONICS ZEB-SW8500RUCF**
Contact	Fenda Audio India	Fenda Audio India	TopNotch Infotronix (I)
Phone	1800-425-5540	1800-425-5540	044-40000007
E-mail	care@fndindia.com	care@fndindia.com	enquiry@zebronics.info
Price*	Rs 5,990	Rs 10,990	Rs 3,599
OVERALL			
Features (30%)			
Build quality (15%)			
Ergonomics (10%)			
Performance (40%)			
Warranty (5%)			
Overall (Out of 100)	**78**	**70**	**69**
Value for money	✪✪✪✪✪	✪✪✪✪✪	✪✪✪✪✪
FEATURES			
Dimensions (WxHxD)			
Subwoofer	331 x 235 x 187 mm	278 x 315 x 422 mm	170 x 326 x 338 mm
Satellites	95 x 183 x 93 mm	98 x 207 x 86 mm	110 x 210 x 114 mm
Centre	95 x 183 x 93 mm	260 x 94 x 100 mm	110 x 210 x 114 mm
Power Rating (RMS)			
Subwoofer | Satellite | Total	29 W | 10 W | 79 W	14 W | 13 W | 66 W	15 W | 15 W | 75 W
Reflex port orientation (Sub-woofer)	Front	Front	Front
No of Drivers			
Centre | Satellite	1 | 1	3 | 2	1 | 1
Individual channel volume control	✔	✔	✔
Controller type	IR Remote	IR Remote	IR Remote
Aux in | Headphone out | BT	✔ | ✔ | ✖	✔ | ✔ | ✖	✔ | ✖ | ✖
FM | Card reader | USB host	✖ | ✔ | ✔	✔ | ✔ | ✔	✔ | ✔ | ✔
Frequency response (Rated)	28 Hz - 20 MHz	30 Hz - 20 MHz	40 Hz - 20 MHz
Signal-to-Noise ratio (Rated)	65 dB	70 dB	80 dB
Cable length			
Front | Centre	7.5 ft | 7.5 ft	7.5 ft | 7.5 ft	6 ft | 6 ft
Rear | Power cord	25 ft | 4.5 ft	25 ft | 4.5 ft	15 ft | 5 ft
BUILD QUALITY			
Quality of cabinet	3	2	3
Quality of buttons / knobs	2	2	2
Speaker grille | Removable grille	✔ | ✖	✔ | ✖	✔ | ✖
Scratch resistant	✖	✖	✔
Aesthetic appeal	3	3	2
ERGONOMICS			
Location of controls: Vol | Bass	IR | IR	IR | IR	SUB + IR | IR
Identifiable flat position	✖	✖	✔
Gradation on controls	✖	✖	✔
Power supply type	Built-in	Built-in	Built-in
PERFORMANCE (AVERAGE SCORES)			
Music playback quality			
Hindi | Club	4.5 | 4	3.5 | 3.5	3 | 3
Hip Hop | Jazz | Rock	4.5 | 4.5 | 4.5	3.5 | 3 | 3	3 | 3 | 2.5
Alan Parson audio test CD	5	3	3
Movies: Action | Musical	4.5 | 4.5	3.5 | 3.5	3.5 | 3
WARRANTY			
Warranty period	1 year	1 year	1 year

Scores out of 5 ** Prices are indicative and are subject to change, taxes extra*

4	5	6	7
			
ARTIS S6699	**ARTIS S6655**	**ZEBRONICS ZEB-SWT9200RUCF**	**ARTIS S5555**
Kunhar peripherals	Kunhar peripherals	TopNotch Infotronix (I)	Kunhar peripherals
022-43346406	022-43346406	044-40000007	022-43346406
sales1@kunhar.com	sales1@kunhar.com	enquiry@zebronics.info	sales1@kunhar.com
Rs 5,500	Rs 5,500	Rs 4,699	Rs 4,200
			
66	**65**	**63**	**63**
✪✪✪✪✪	✪✪✪✪✪	✪✪✪✪✪	✪✪✪✪✪
170 x 310 x 322 mm	170 x 330 x 340 mm	178 x 377 x 315 mm	170 x 300 x 308 mm
106 x 170 x 102 mm	95 x 150 x 95 mm	105 x 181 x 96 mm	92 x 138 x 92 mm
106 x 170 x 102 mm	95 x 150 x 95 mm	105 x 181 x 96 mm	92 x 138 x 92 mm
NA	NA	18 W | 18 W | 90 W	NA
Front	Front	Front	Front
1 | 1	1 | 1	1 | 1	1 | 1
✔	✔	✔	✔
IR Remote	IR Remote	IR Remote	IR Remote
✔ | ✖ | ✖	✔ | ✖ | ✖	✔ | ✖ | ✖	✔ | ✖ | ✖
✔ | ✔ | ✔	✔ | ✔ | ✔	✔ | ✔ | ✔	✔ | ✔ | ✔
20 Hz - 20 MHz	20 Hz - 20 MHz	40 Hz - 20 MHz	20 Hz - 20 MHz
70 dB	70 dB	64 dB	70 dB
6 ft | 6 ft	6 ft | 6 ft	6 ft | 6 ft	6 ft | 6 ft
16 ft | 5 ft	16 ft | 5 ft	12 ft | 4 ft	16 ft | 5 ft
3	4	3	4
1	2	2	2
✔ | ✖	✖ | ✖	✖ | ✖	✔ | ✖
✔	✖	✔	✔
2	3	2	3
SUB + IR | IR	SUB + IR | IR	SUB + IR | IR	SUB + IR | IR
✔	✔	✔	✔
✔	✔	✔	✔
Built-in	Built-in	Built-in	Built-in
3 | 2.5	3.5 | 3	2.5 | 2	2 | 1.5
2.5 | 2.5 | 3	3 | 3 | 3	2 | 2 | 2	2 | 2 | 2
3	3	3	2
3 | 3	3.5 | 3.5	3.5 | 3.5	3 | 3
1 year	1 year	1 year	1 year

Nachiket Gujar

	8	9	10
SpecScan			
MODEL	**INTEX IT-4850+SUF**	**CREATIVE INSPIRE T6100**	**INTEX IT-4000BT**
Contact	Intex Technologies	Compuage India	Intex Technologies
Phone	1800-103-8822	9224400610	1800-103-8822
E-mail	info@intextechnologies.com	raman.chawla@compuageindia.com	info@intextechnologies.com
Price*	Rs 6,625	Rs 5,199	Rs 4,900
OVERALL			
Features (30%)			
Build quality (15%)			
Ergonomics (10%)			
Performance (40%)			
Warranty (5%)			
Overall (Out of 100)	**60**	**52**	**52**
Value for money	✪✪✪✪✪	✪✪✪✪✪	✪✪✪✪✪
FEATURES			
Dimensions (WxHxD)			
Subwoofer	167 x 310 x 335 mm	253 x 286 x 182 mm	150 x 362 x 300 mm
Satellites	100 x 151 x 128 mm	70 x 183 x 80 mm	85 x 165 x 86 mm
Centre	252 x 100 x 128 mm	105 x 82 x 170 mm	85 x 165 x 86 mm
Power Rating (RMS)			
Subwoofer | Satellite | Total	25 W | 15 W | 85 W	18 W | 8 W | 50 W	10 W | 10 W | 50 W
Reflex port orientation (Sub-woofer)	Front	Front	Front
No of Drivers			
Centre | Satellite	3 | 2	1 | 1	1 | 1
Individual channel volume control	✔	✖	✔
Controller type	IR Remote	Analog on satellite	IR Remote
Aux in | Headphone out | BT	✔ | ✖ | ✖	✖ | ✔ | ✖	✔ | ✖ | ✔
FM | Card reader | USB host	✔ | ✔ | ✔	✖ | ✖ | ✖	✖ | ✔ | ✔
Frequency response (Rated)	20 Hz - 20 MHz	40 Hz - 20 MHz	25 Hz - 20 MHz
Signal-to-Noise ratio (Rated)	75 dB	80 dB	80 dB
Cable length			
Front | Centre	6 ft | 6 ft	5 ft | 6 ft	4 ft | 4 ft
Rear | Power cord	16 ft | 4.5 ft	13 ft | 9 ft	15 ft | 4 ft
BUILD QUALITY			
Quality of cabinet	2	4	3
Quality of buttons / knobs	1	4	1
Speaker grille | Removable grille	✖ | ✖	✔ | ✖	✔ | ✖
Scratch resistant	✔	✔	✔
Aesthetic appeal	2	3	2
ERGONOMICS			
Location of controls: Vol | Bass	SUB + IR | IR	Sat | Sub	IR | IR
Identifiable flat position	✔	✔	✖
Gradation on controls	✔	✔	✖
Power supply type	Built-in	Adapter	Built-in
PERFORMANCE (AVERAGE SCORES)			
Music playback quality			
Hindi | Club	2 | 1.5	2.5 | 2.5	2.5 | 2
Hip Hop | Jazz | Rock	1.5 | 2 | 2.5	2.5 | 3 | 3	2 | 1.5 | 1.5
Alan Parson audio test CD	3	3	2
Movies: Action | Musical	2.5 | 2.5	3 | 3	2 | 1.5
WARRANTY			
Warranty period	1 year	1 year	1 year

Nachiket Gujar

Network 18







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SOFTWARE SPOTLIGHT



OFFICE SUITE

MICROSOFT OFFICE HOME & STUDENT 2013

VERDICT: Minor improvements throughout, but not worth an upgrade if you already have Office 2010 or 2007.
FOR: Live previews in Word and Excel; improved media handling in PowerPoint; new "app store" for plugins.
AGAINST: Inconsistent interface; new animations will annoy some users.

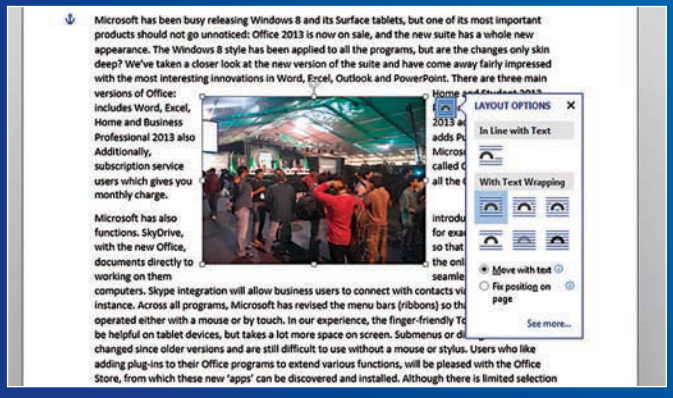
CHIP TEST CENTER RECOMMENDED MAR 2013

Microsoft has been busy releasing Windows 8 and its Surface tablets, but one of its most important products should not go unnoticed: Office 2013 is now on sale, and the suite has a whole new appearance. The Windows 8 style has been applied to all programs, but are the changes only skin deep? We took a closer look at Office 2013 and came away fairly impressed with the innovations in Word, Excel, Outlook and PowerPoint. There are three main versions of Office: Home and Student 2013 includes Word, Excel, PowerPoint and OneNote, while Home and Business 2013 adds Outlook; Professional 2013 adds Publisher and Access. Additionally, Microsoft has launched a subscription service called Office 365 for home users which gives you all the Office programs for a monthly charge.

Microsoft has also introduced some new online functions. SkyDrive is integrated with the new Office, so you can save your documents directly to the online service to keep working on them on other computers. The Skype integration will allow business users to connect with contacts via Outlook, for instance. Across all programs, Microsoft has revised the menu bars (ribbons) so they can be operated either with a mouse or by touch. In our experience, the finger-friendly Touch mode was helpful on tablets, but took up a lot more space on screen. The submenus and dialogue boxes have not changed since older versions and are still difficult to use without a mouse or stylus. Users who like adding plug-ins to their Office programs to extend various functions will be pleased with the Office Store from which these new 'apps' can be discovered and installed. Although there is a limited selection at the moment, the number of apps is expected to increase rapidly with Office 2013 launching around the world.

Word: Practical features

Over the years, Word has become so bloated that some features are difficult to discover. Small user-friendly innovations try to help users harness these tools. We liked the small icon next to every graphic, which provides quick access to important functions with a single click. This complements the 'Picture Tools' tab which appears only when graphics are selected. The new 'Live Layout' function lets users see how text flows around objects on



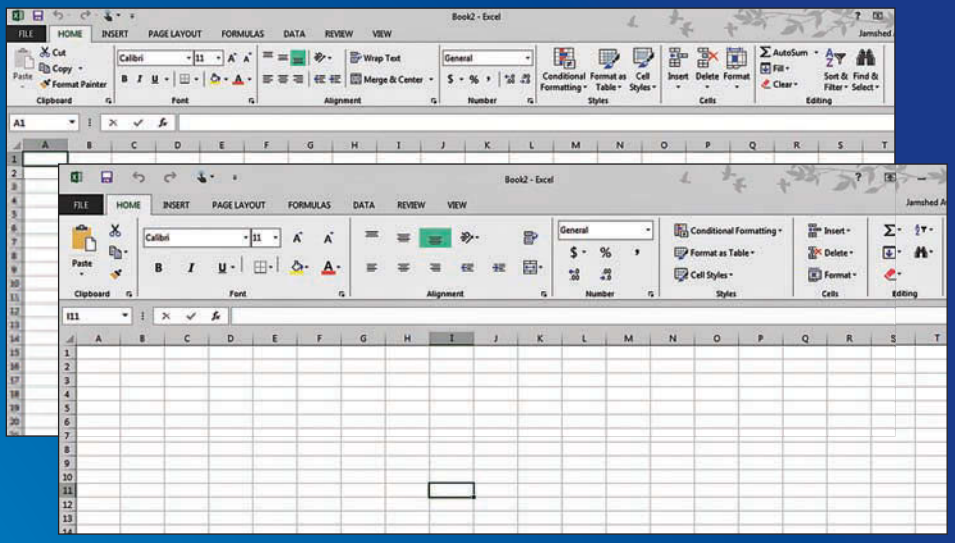
You can now drag elements on a page in Word and see the text reflow around them live. Pop-up menus allow quick access to text wrap and other options.



Select any range of data in Excel and it will generate previews of graphs, sparklines, conditional formatting, etc., on the fly.

SMS us! > Story code: TSM to 51818

the fly when moving them on the page. In previous versions, you could judge how a layout looked only after moving graphics. Additionally, Word now shows dynamic guides when you move objects, helping you judge alignment, margins and spacing. PDF handling has been improved drastically. Microsoft says layouts of PDF documents are now maintained regardless of the platform or the program used to create them. Up to now, although Word could create PDFs, it could not edit them. In the new version, Word converts PDFs to its own format in order to allow editing. In our experience, it worked very well with simple files and even integrated graphics were recognised as independent objects and could be moved freely. However there are problems with fonts integrated in PDFs—if they are not installed on the user's PC, Word replaces them with default fonts, which leads to layout errors. Complex PDFs with multiple graphics are also difficult. Here, Word could not recognise some fonts and treated each page as a flat image. Despite these errors, PDF conversion is a good feature and it will hopefully be improved with updates.



The ribbon expands in Touch Mode, taking up more space but displaying fewer commands.

Tracking changes now lets you quickly switch between simple markup and all markup, showing the difference between the original and modified document. You can reply to comments and follow up with users via email or IM.

Excel: Smart diagrams

Excel also has a few new functions designed to make the program easier for beginners. Excel analyses your data and tries to automatically fill cells. In our test, we typed a few first and last names in two separate columns and then entered the complete name in a third column. Excel recognised the "formula" and independently combined all the remaining rows after prompting us to confirm by pressing [Enter].

Additionally, there is a quick analysis tool that suggests specific actions for the entered values. The function is automatically enabled, so as soon as you select an area, Excel prompts you to create an appropriate graph or add spark lines with a single click, and also offers a live preview. The new Excel thus makes lesser-used functions easier to access.

SPECIFICATIONS

Rs 5,499

www.microsoft.com/office

SYSTEM REQUIREMENTS

OS: **Windows 7/8 (32 or 64-bit)**; CPU: **1GHz**; RAM: **2GB**; Disk space: **3GB**

CONTACT	Microsoft India
PHONE	1877-696-7786
EMAIL	NA

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

Outlook: Clean and clearly structured

Outlook 2013 appears clean and uncluttered. The column with the calendar and to-do list is now hidden by default in order to leave more space for messages. Clicking 'Reply' opens a compose box in the same space as the message, instead of a new window. Some things are unnecessary, such as the buttons for 'Reply', 'Forward', etc. in each email message, which are duplicates of the same buttons in the Ribbon bar just a few pixels above. On the bottom left of the screen, a bar shows large text links to the Calendar, People and Tasks views. Hovering over any of the labels shows a pop-up window with previews of appointments, favourite contacts and pending tasks. This looks like Windows Phone's menus and replaces the vertical calendar column on the right in previous versions.

The People view replaces the older Contacts view, again matching Windows 8 and Windows Phone. Besides the usual contact information, you'll see Facebook and LinkedIn integration. You cannot import Facebook friends to Outlook, but you can see their photos, activity updates and personal data.

PowerPoint: A step forward

New features include a comments sidebar that facilitates working together with colleagues. Widescreen slides for 16:9 monitors and projectors are now the default. The improved speaker view can be used for practice even if only one monitor is available. In older versions, the mode worked only if at least two displays were connected. Now, you can see the current slide, the next one, notes for the presentation, and a clock that helps you stay on track. A new zoom function lets you quickly highlight individual elements on a slide. It's also easy to embed online videos in presentations. Apart from that, Microsoft has made many small changes, for instance, PowerPoint now has touch gestures, which lets you change slides.

Verdict

Office 2013 is better in terms of convenience. Manual labour is easier to perform thanks to the useful shortcuts and conveniences. However, there are no groundbreaking features or improvements that warrant an upgrade from Office 2010 or 2007. Casual home users will not find it worth the upgrade cost, but heavy users will immediately miss these programs when using older versions. Finally, keep in mind that Office 2013 requires at least Windows 7, so XP loyalists are left out.

- feedback@chip.in

VERDICT

A GREAT MULTIMEDIA SUITE FOR BOTH NOVICE AND ADVANCED USERS.





The modules are presented as large colourful tiles, which may seem a bit annoying.

MULTIMEDIA SUITE

NERO 12

FOR: Good configuration; graphics acceleration and lots of video effects.

AGAINST: The operation is confusing to some extent; crashes during video import.

Nero 12 brings less to the table unlike its predecessors, which were full of features. Modules like WaveEditor or CoverDesigner have been dropped completely in the new version, but you can download these utilities for free. When used on Windows 8, Nero adapts to the new UI, but could do a lot better. Although the big buttons work as eye catchers, the overloaded welcome screen in every module is quite annoying.

The video transcoder module, Recode, grabs video from diverse sources, but this feature is only enabled in the platinum version. You can also download videos from video portals like YouTube. But in practice, the conversion of DVDs and Blu-rays fails due to the copy protection on the discs. The performance on our mid-end test rig was mediocre and it took about 22 minutes to convert a film in Full HD format for the PS3. The software runs fine when importing video from the hard drive, but crashes repeatedly when importing directly from camcorders or cameras. Nero 12 deals with various sources of video material and does it quite promptly—it imports a 1GB camcorder video in 38 seconds. Nero offers many video presets for various devices, including Xbox 360, PS3, iPad, iPhone and Kindle Fire. It also masters video editing and offers about 500 effects for that. The effects can be applied by simply dragging and dropping them. We also have a function for extracting audio tracks from videos and saving them as an MP3 file.

Nero Burning ROM and the backup software BackItUp are pretty much the same. Only the backup utility runs a bit slower than utilities such as Acronis True Image. It is remarkably slow for all the backup sizes. All in all, Nero 12 stands out positively due to its good configuration. The new video effects are great even though the entire suite has been stripped down. We liked the drag-and-drop functionality, but a few points were deducted due to the incomprehensible mini-icons and other shortcomings. Ultimately, this is a Multimedia Suite which can satisfy even advanced users.

- feedback@chip.in

SPECIFICATIONS

$79.99 (Approx Rs 4,600)

www.nero.com

SYSTEM REQUIREMENTS

OS: **Windows XP or higher;** Processor: **1.4GHz or better;** Disk space: **1.5GB.**

CONTACT	Nero Inc.
PHONE	NA
EMAIL	NA

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪



VERDICT

A FEATURE-PACKED VIDEO CONVERTER WITH LOTS OF OPTIONS.

VIDEO CONVERTER

AUNSOFT VIDEO CONVERTER

FOR: Plenty of tweaks; moderate PC requirements.

AGAINST: Some options are not novice-friendly.

Aunsoft Video Converter is yet another do-it-all video converter that's capable of converting any video format to any other format. This software is available on a free trial, with the only limitation being an Aunsoft watermark on all output videos. Aunsoft's interface is similar to that of Cyberlink's MediaEspresso converter. The interface is quite simple and even novices should easily be able to find their way around. You can drag and drop multiple files in the windows and Aunsoft will queue them up for conversion. You can choose to merge all the files into one big video file as well. You have to select an output profile, which is where Aunsoft has done a pretty great job. Not only do you get a fleet of presets for various devices, you even get custom profiles for smartphones from top tier manufacturers.

Once you've selected the output profile, you can choose to edit the video and add effects. This opens a new window where you can see the original video and what the output video file will look like. You have options to trim the video, crop the resolution, set the output file size, or add a text or image watermark. In the 'Effects' tab, there's an option to convert the video to anaglyph 3D as well. You can adjust the depth of the scene and adjust the colours, but there's no support for stereoscopic 3D. Finally, you can replace the audio track, add fades, etc. In the Settings menu, you can choose to select the number of CPU cores the program uses, and if you have an Nvidia card, it can take advantage of CUDA as well. Sadly, there's no support for ATI's Stream technology. Conversion is pretty quick as the program maxes out all the cores and threads of the CPU. The output video quality is pretty good as well. The full version costs $35 (around Rs 1,925) which is not bad considering the features and performance it offers.

- Roydon Cerejo



Videos can be transcoded to formats supported by popular smartphones and PMPs.

SPECIFICATIONS

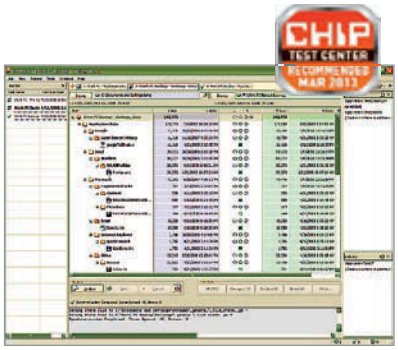
$35 (Approx Rs 1,925)

www.aunsoft.com

SYSTEM REQUIREMENTS	
OS: **Windows XP/Vista/7/8;** CPU: **Intel/AMD dual-core ;** RAM: **1GB;** Drive space: **200MB.**	
CONTACT	Aunsoft
PHONE	NA
EMAIL	winsupport@aunsoft.com

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪



FILE SYNCHRONISATION

GoodSync

VERDICT: A handy tool to keep your important data backed up.
FOR: Highly configurable; straightforward user interface.
AGAINST: Too many options might be daunting for new users.

SPECIFICATIONS

$29.95 (Approx Rs 1,620)
www.goodsync.com

SYSTEM REQUIREMENTS
OS: **Windows XP/Vista/7/8, Mac OSX 10.5 and higher;**
RAM: **2GB;** Drive space: **67MB.**

CONTACT	Siber Systems
PHONE	NA
EMAIL	ask@goodsync.com

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

Using a file synchronisation utility is the most convenient way to keep your data backed-up. GoodSync is one good option if you want to keep your data safe. It doesn't take up much space and is easy to configure. You start by creating a job in which you have to specify the job type (sync or backup). Next, you have to specify the data source; it can be a folder on your PC, a network location, an FTP address, Google Drive, SkyDrive, Windows Mobile device, etc. The same goes for the destination. Sync and backup jobs can be configured further—you can choose the sync direction, filter file types, specify version details and more. The software features a tabbed interface and the jobs are selectable tabs. This makes it easy to configure and run multiple jobs.

GoodSync is available on a trial basis and can be upgraded to Pro version for a reasonable price.

- Anand Tuliani

ON DVD

CHIP DVD

MARCH 2013

RED HOT

Adobe Flash Professional CS6

FULL SOFTWARE

Apache OpenOffice.org 3.4.1
LibreOffice 4.0.0 RC 1
AbiWord 2.9.2
Jarte 4.5
IBM Lotus Symphony 3.0.1
SSuite Office - Personal Edition 4.4.1
Microsoft Money Plus Home & Business 17.0.150.3817

FULL GAMES

Slizz
Cube 2: Sauerbraten 2013_01_07
Battle for Aqua
Fruit Ninja 1.0
Simb Fighter Beta
Winter Sports Extreme
Bigfoot 4X4 Challenge

GAME DEMOS

LEGO The Lord of the Rings
Battle Rush 1.0
Headlong Racing 1.0.6
Slenderman's Shadow
Navy Seals - Weapons of Mass Destruction

GAME ADD ONS

Conquista 2.0 Patch 8512-8515
Hoodwink Patch 19-07-2012 (Spanish)
Forsaken World Patch 0.340.0
Counter-Strike Online Manual Patch 0.55
Worms Armageddon Patch 3.7.0.0

GAME TRAILERS

Nemo's Reef Official
DmC Devil May Cry - Demo
Final Fantasy XIII: The Final Journey of Lightning
Fuse - Dalton Rules
Uncharted 3: Drake's Deception - Accolades
Battlefield 3: End Game Teaser
Trials Evolution: Riders of Doom Launch
Medal of Honor: Warfighter Zero Dark Thirty Map Pack Launch
Metal Gear Rising: Revengeance Fast and Sharp
Power Rangers Super Samurai: Launch

LINUX

LINUX DISTRIBUTION

Fedora Live 18

LINUX TOOLS

Nokuntu 0.6
iFamebook 3.7
Gtkdialog 0.8.3
FFmpeg 1.1
aTunes 3.0.3
Adobe Flash Player for Linux 11.2.202.258
Adobe Flash Player for 64-bit Linux 11.2.202.258

TOOLS

MULTIMEDIA

GOM Audio 2.0.1.0138
Media Player X10 6.0
DVDStyler Portable Edition 2.3.5
DVD slideshow GUI 0.9.5.4
ArtRage Starter Edition 2.6.0
UMPlayer 0.98
Ace Video Converter 3.2b
UM FLV Video Converter 2.2.1.9
K-Lite Mega Codec Pack 9.6.5
XMedia Recode 3.1.4.1

INTERNET

WebBrowserPassView 1.35
CoolNovo
WebcamMax 7.7.1.2
Direct YouTube Downloader 1.14
Tor Browser Bundle 2.3.25-2
WinPatrol 26.1.2013.0
Readon TV Movie Radio Player 7.6.0.0
Free Download Manager 3.9.2 Build 1281
WinSCP 5.1.3 Build 2881
Yahoo! Messenger 11.5.0.228
Google Talk 1.0.0.105

MOBILE

Syncios 2.0.3
Mobile Webcam for Java 1.0
Moborobo 2.0.9.609 Beta
Mobile Media Converter 1.7.7
smart recovery 4.5
Nokia PC Suite 7.1.180.94
MX Player 1.7.10 (Android)

SECURITY

Avira Antivirus Premium 2013 13.0.0.2890
AVG Free Edition 2013 Build 2805a5946
Norton 360 20.1.1.2
PC Tools AntiVirus Free 9.1.0.2898
Panda Cloud Antivirus 2.1.0
Kaspersky PURE 2
DiskCryptor 1.0.744.115
SPAMfighter Standard 7.6.12
Free Internet Eraser 3.80

SYSTEM

XXCLONE 2.01.2
StartW8 1.1.34.0
SQLite PHP Generator 12.8.0.8
MS SQL PHP Generator 12.8.0.8
Portable KCleaner 1.2.3.42
MyColors 2.70.500.15052
SystemNanny 4.0.0.1.2012

MUST HAVES

.NET Framework Version 4.5
AMD Catalyst Drivers 12.8 XP
AMD Catalyst Drivers 12.10 Vista
Realtek AC'97 Driver A4.06
Realtek High Definition Audio 2.70 XP
Realtek High Definition Audio 2.70 Vista
DirectX 9.0c (Jun 10)
Java Runtime Environment 1.7.0.11 (32-bit)

ADOBE PLAYERS

Adobe Air 3.6.0.5770 Beta
Flash Player 11.5.502.146 (IE)
Flash Player 11.5.502.146 (Non-IE)
Shockwave Player 11.6.8.638

E-BOOKS

CHIP ARCHIVES

OCT to DEC 2012 (3 months)

VERDICT

AN EASY-TO-USE BACKUP UTILITY, BUT DOESN'T EVEN COME CLOSE TO THE BEST.





PC Suite Backup 2 makes backing-up data and managing backups easy with a straightforward interface.

DATA BACKUP UTILITY

PC SUITE BACKUP PRO 2

FOR: Very easy to use; quick at backing-up partitions.

AGAINST: Can't perform differential backups; overall performance is average.

Backup tools such as PCSuite Backup Pro 2 by Markement compete against the in-built data backup tools in Windows, albeit with additional features. However, Backup Pro 2 does much better than Windows. The main interface presents four functions: create a new backup plan, manage backup plans, restore backup and view backup reports. The software allows you to back-up data on individual partitions, all the data on the computer or user-selected data. Incremental backup plans are also available, besides complete backups; here only the changes made to the previous backup are saved. However, it can't take differential backups.

External hard drives and network locations were perfect as destinations for data backup, but backing up data to cloud services isn't possible. Instead, Backup Pro 2 connects to its own online storage service, which isn't free—you get 10GB of storage for 5 euros (around Rs 360) per month. In case of file-based backups, you have to manually specify every folder you wish to backup. It would have been nice if there were a direct way to select oft-used folders such as Pictures and Music. The software initially failed to run on our test PC running Windows 8, but worked normally after a restart. However, we occasionally faced system crashes. If you plan to use this backup software, we suggest you first backup all your data and create a mirror of your system partition, as it will come in handy if your PC doesn't recover from a crash. The only good thing about Backup Pro 2 is that it doesn't take too long to backup data. It took only 1 hour and 43 minutes to backup a 670GB partition. In case of file backups though, there is still room for improvement. It took more than an hour to archive 40GB of photos, which is quite mediocre.

If you're considering going in for Backup Pro 2, we suggest you first check out the trial version. You can also take a look at free alternatives like Backup Maker, EaseUS Todo Backup Free and FBackup.

- feedback@chip.in

SPECIFICATIONS

Rs 1,548

www.pcsuite.de

SYSTEM REQUIREMENTS	
OS: **Windows all;** RAM: **2GB;** Disk space: **NA**	
CONTACT	Markement GmbH
PHONE	NA
EMAIL	NA

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

Network 18

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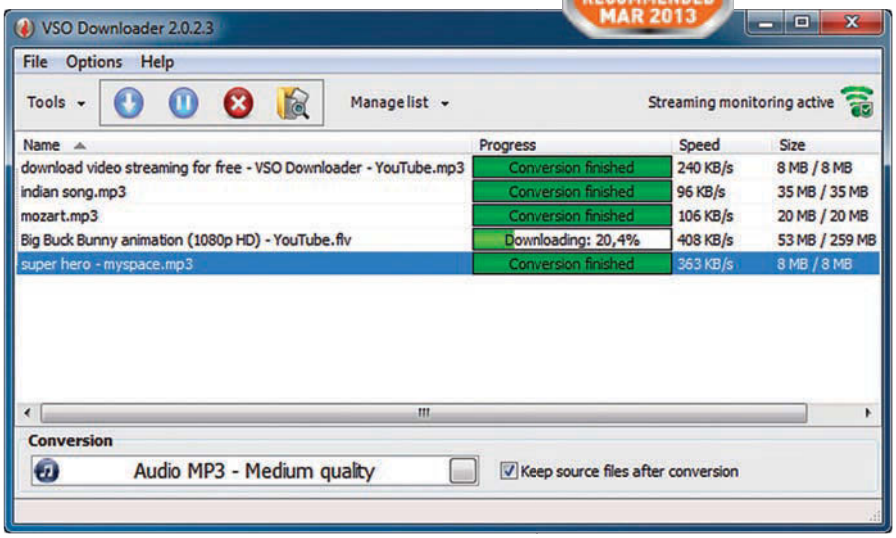
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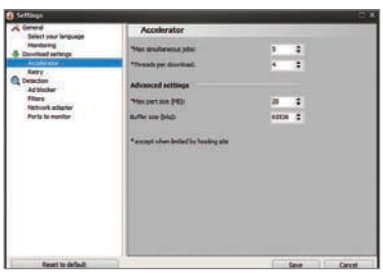
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VERDICT

FEATURE-LOADED, EFFICIENT PROGRAM TO DOWNLOAD AUDIO/VIDEO FILES.





The number of simultaneous jobs and threads per job can be customised to accelerate downloads.

DOWNLOAD MANAGER

VSO DOWNLOADER

FOR: Automatically detects stream; video/audio conversion; Ad Blocker.

AGAINST: Will download just any audio/video if automatic downloading is not turned off when not required.

The Internet is home to millions of useful videos and VSO Downloader will download any video you want it to. This tool has a bunch of nifty features. To begin with, the program automatically detects streaming content. As soon as you start streaming a video, the program will automatically detect and start downloading it. On the flip side, this means you will have to switch off automatic download while clicking around the Web, or else the program will download every audio and video file it comes across.

VSO Downloader is also browser independent, so it doesn't really matter which web browser you are using. You don't have to worry about annoying advertisements either. The program has an integrated ad blocker which ensures that only relevant content is downloaded and the advertisements are not. There's also an in-built video converter that can convert files into different formats such as AVI, H264, Xvid and MPEG4. However, if you are using the free version of VSO Downloader, you'll have to contend with a watermark on the converted video. The program also lets you rip audio from videos, which is quite cool. It supports all popular audio and video formats, including MP4, WMV, and FLV, and easily detects videos from YouTube, Google Videos, etc. VSO Downloader is also capable of detecting the available resolutions before downloading videos, and lets you to choose which resolution you want to download.

Keep in mind that downloading copyrighted videos can have legal implications and may land you in trouble.

In a nutshell, VSO Downloader is a pretty nifty application, especially as it integrates an ad blocker and a video convertor. It is user-friendly and can even resume downloads. It is available in freemium and premium versions. You can opt for the paid Ultimate version for some additional features; it'll cost you $29.99 (around Rs 1,618).

- Naina Khedekar

SPECIFICATIONS

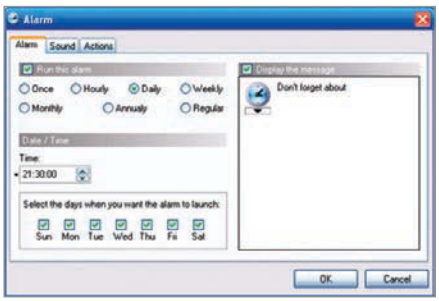
Freeware

www.vso-software.fr

SYSTEM REQUIREMENTS	
OS: Windows 8/7/Vista/XP - 32 & 64 bit	
CONTACT	VSO-Software SARL
PHONE	+33 56216-0223
EMAIL	NA

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪



ALARM CLOCK

ATOMIC ALARM CLOCK

VERDICT: A good reminder application with ample customisation options

FOR: Easy to use; plenty of features.

AGAINST: Expensive.

Atomic Alarm Clock has an intuitive and easy to use interface. Upon installation, it will replace the system clock in the system tray. You can access the clock's Settings by right clicking on it. To set up an alarm, click on the 'New Alarm' option. It provides you with several options: you can set alarms once, hourly, daily, weekly, monthly, and annually. There's also a 'Regular' option that allows you to set an alarm at regular intervals. You can set up more than one alarm too.

To jazz up your alarm, you can select from the several icons like tea, mail, phone, etc. After setting the alarm time, you can key in the details and then proceed to select the sound. Here you can choose from the existing sounds or select an MP3 file of your choice. You can also customise the number of times alarms should sound and even set a custom sound volume for each.

You can also determine the action to be performed when an alarm sounds. For instance, you can choose to open an application or document or choose to shut down the computer. Additionally, you can customise the look of the clock by switching the skin as well as the way the time and date are displayed. You can also choose to display additional information like memory details, week number, etc. Atomic Alarm Clock also provides a calendar.

- Priyanka Tilve

SPECIFICATIONS

Approx Rs. 1,600

www.drive-software.com

SYSTEM REQUIREMENTS

OS: **Windows XP/Vista/7;** Disk Space: **14.3MB**

CONTACT	Drive Software Company
PHONE	NA
EMAIL	support@drive-software.com

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

SYSTEM UTILITY

ELITE KEYLOGGER 5

VERDICT: A powerful utility for monitoring PC activities at home and office.

FOR: Easy to use; lots of features; print capture capability; expensive.

AGAINST: Almost none.

Elite Keylogger is a three-in-one utility that can record keystrokes, passwords and user activities while running undetected in the background. Once configured, you can hide it from the user, the system tray as well as the control panel. The program will open only after a password has been keyed in. It also features a clipboard monitor that can record content that is pasted from a file and not typed in. You can set up the utility to secretly take screenshots at given intervals, record launched applications and save printed documents. Lastly, the Internet monitoring feature can track and record visited URLs, save timestamps and record any emails. All recorded data can either be saved to a location on your PC, sent via email or dumped on a remote FTP server. You can even secretly copy all recorded information directly to a pen drive as soon as it is inserted. The utility can be installed silently or even remotely and displays no pop-ups. It is also hidden from antivirus utilities. The utility is a must-have for homes and offices. Note that you will have to temporarily disable the antivirus to install the utility. Remember that spying on somebody's personal life is illegal and a crime. Use it responsibly. Elite Keylogger costs Rs 4,300. A corporate license (unlimited PCs) is available for Rs 54,000.

- Francis D'sa



SPECIFICATIONS

$ 79 (Approx Rs 4,300)

www.widestep.com

SYSTEM REQUIREMENTS

OS: **Windows all;** Disk space: **10MB.**

CONTACT	WideStep Software
PHONE	NA
EMAIL	NA

RATINGS

FEATURES	✪✪✪✪✪
PERFORMANCE	✪✪✪✪✪
EASE OF USE	✪✪✪✪✪
OVERALL RATING	✪✪✪✪✪
VALUE FOR MONEY	✪✪✪✪✪

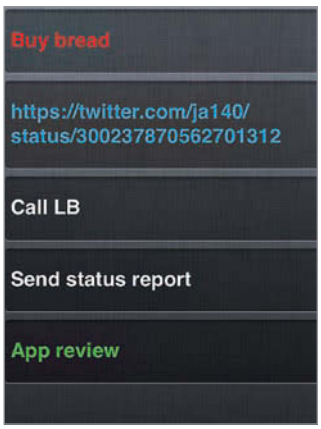
PRODUCTIVITY

Notify!

Rs 55
iPhone, iPod touch; iOS 5.0+

OVERALL RATING ★★★★½

The problem with most to-do lists is that you don't always finish tasks in the order you made note of them. If the list becomes too complicated to use at a glance, you'll find yourself not bothering to use it anymore. Notify! tries to simplify things so your to-do list is always clean and easy to manage. There's nothing on the screen apart from your to-do entries. Pull down to create a new slot and type or paste anything into it. You can double-tap an item to send it to the top in bright red text, and double-tap again to demote it. A swipe to the right will mark it as done and a swipe to the left will delete it. Pulling the screen to the right reveals a list of to-dos, if you prefer multiple lists for different purposes. In practice, it works superbly. The app even recognises URLs, phone numbers and addresses, but it would be nice to be able to add items directly from within a browser or another app.



- Jamshed Avari

PRODUCTIVITY

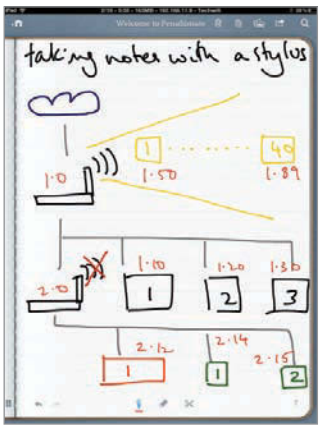
Penultimate

Free
iPad; iOS 5.1+

OVERALL RATING ★★★★½

Penultimate was an expensive app when it first launched, especially considering that there was only one thing it did well—let you write and sketch with your finger or a stylus. But in fact it did so well that it's been bought by Evernote, the catch-all information-gathering app. Penultimate is now free, and has been beefed up considerably. Most obviously, your notebooks are now synced through Evernote and can be accessed from any device you sign in to. Without an account, you get only one notebook. Once you sign in, you can also search through your handwritten notes—the app uses OCR to turn scribbles into text. You can copy and paste by dragging a lasso around any part of your page, and also export pages or entire notebooks as PDF files. A stylus really helps when using the pen tool, but you can get great results even with a finger. Styles and colours are limited but the app is fun to use.

- Jamshed Avari



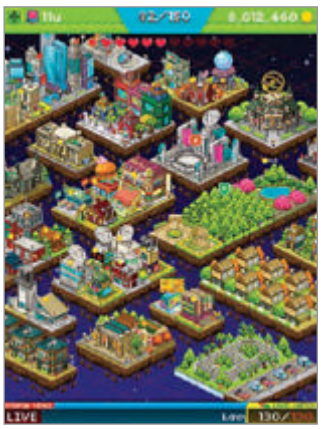
GAME

Pixel People

Free
iPad, iPhone, iPod touch; iOS 4.3+

OVERALL RATING ★★★★½

All freemium games follow pretty much the same formula: you can only build or expand up to a point and then you either have to pay real-world money or perform endlessly repetitive tasks in order to progress any further. Pixel People does fall into this trap but it's still possible to have fun without paying any money. The land you need to build your city keeps doubling in cost, and certain actions take forever unless you use credits to speed them up. The game's mechanics are a mix of Alchemy-style element combination and Tiny-Tower-style building and staffing. There's cheeky humour in everything from citizens' names to building descriptions, and cute little jokes and bonuses are scattered throughout. You'll have to strategise about how best to use your land, which is needed for expansion, unlocking jobs and placing amenities that grant you bonuses. Pixel People is fun as long as you can handle lots of pauses and menial tasks.



- Jamshed Avari

PHOTO/VIDEO

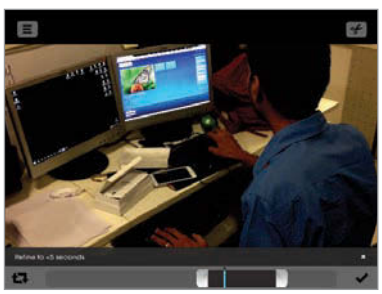
Echograph

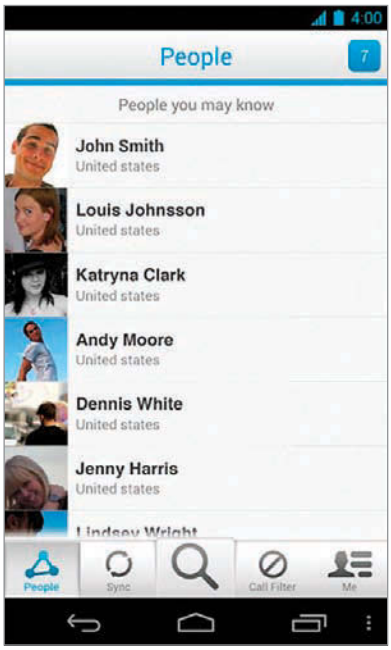
Free
iPad, iPhone, iPod touch; iOS 5.0+

OVERALL RATING ★★★★½

Cinemagraphs are animated photos in which an object or an area of a frame is very subtly animated. The technique has been around for a while but has only recently become popular on social networks. Echograph helps you create cinemagraphs out of video clips. You can record a clip or choose one from your library. After trimming it to five seconds or less, you get to choose a still frame and mask out some areas. These areas will be animated using all the other frames of the video. You can go back and forth to refine your selection, but the tool provided isn't very precise. Export the clip in low or high quality, and the app will allow you to post it to Facebook and/or Twitter, or send it by email. Files are saved as MP4 videos and GIF animations, so you can retrieve them through iTunes for use any way you like. While it's possible to create stunning effects, you have to have very steady video and preferably a static background for best results. The app can't stabilise video, which is a pity.

- Jamshed Avari





CALLER ID

TRUECALLER

Freeware
Android, iOS, Symbian, Windows Phone, BlackBerry

OVERALL RATING ★★★★★

Ever wanted to know who's been pestering you with crank calls at 4 am? Truecaller is a must-have app for such occasions. It lets you identify practically anyone calling you from a phone, anywhere in the world. Not only that, you can even blacklist certain numbers and find out where the person is calling you from. The app's UI is very simple and straightforward to use. After launching it the first time, you'll be prompted to confirm the region you're in. After that, the app runs in the background and kicks in every time you get a call. You can access advanced features by opening the app directly as well. Truecaller also has a social angle to it. You can sign in via Facebook, LinkedIn or Twitter and get the latest updates from friends when they call you. The 'Call Filter' tab lets you add numbers you wish to block. You can add numbers to the 'My Blacklist' page and these numbers are automatically updated in the central database, so next time you get a call from a telemarketer, Truecaller will warn you that it's most likely a spam call, which is really neat. You can also view a list of 'Top Spammers' in your region and have Truecaller automatically block all of them.

The app works seamlessly every single time, and it gets almost every number right, every single time. Available for free on Symbian, iOS, Android, Windows Phone and BlackBerry, Truecaller is definitely a must-have app for any smartphone user.

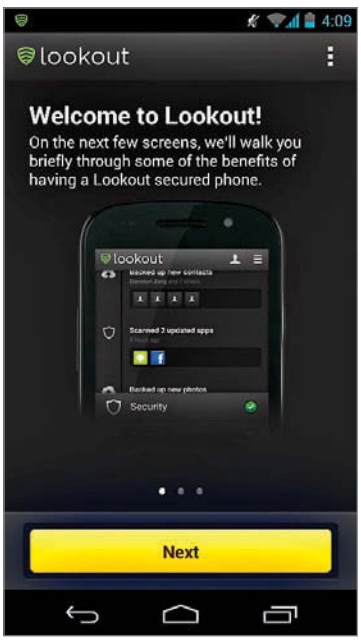
- Roydon Cerejo

SECURITY SUITE

LOOKOUT MOBILE SECURITY

Rs 163 (1 month), Rs 1,638 (1 year)
Android

OVERALL RATING ★★★★☆



Lookout has most of the options most mobile security suites provide today. It sports a very simple look and the homepage gives you information about activities the app has undertaken; it will also notify you if something needs your attention. Lookout lets you back-up your contacts, photos and even call history. However, the ability to back-up photos and call history is a premium feature and is available only on the paid version. You can access and restore your backed-up data from Lookout's website.

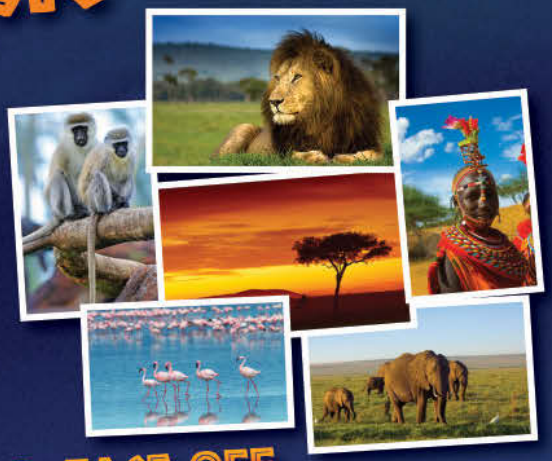
Lookout will scan all the installed apps on your device and show all related data like memory usage, cache, and most importantly, all the data that an app has access to. It will also highlight the apps that will cost you money. It will segregate apps into categories on the basis of the permissions they have, like access to location information, read identity info, etc. In case you are not comfortable with sharing certain information with an app, you can 'force stop' or uninstall it directly from within Lookout.

Lookout also provides some handy features that will help you locate your device in case it's stolen. Overall, it's a good app that will keep your device and data away from prying eyes. As expected, the most useful features like Remote Lock and Wipe are premium features. But if you do not wish to pay and are looking for an app that will keep you safe when browsing the web and downloading apps, then Lookout is a great option.

- Priyanka Tilve

Network 18

INDIA'S BIGGEST PHOTOGRAPHY AWARDS ARE BACK



Better Photography PHOTOGRAPHER OF THE YEAR 2012

In Association with htc quietly brilliant

FINAL FACE-OFF IN KENYA!



WIN HTC One X+
The most advanced smartphone yet.

And prizes worth more than **Rs 5 lakh**

It's that time of the year again! If you are passionate about making pictures, go on and pick up your camera! Better Photography, India's foremost photography magazine, brings to you the 8th edition of India's biggest photography contest – the Photographer of the Year 2012 Awards. There is no entry fee. All you need to do is get clicking! Here is your chance to win one of India's most prestigious award titles in photography and be recognised for your unique vision.

Send in your entries under these categories:

- Portraiture: Faces
- Macro: Our Tiny Unseen World
- Landscapes: Form, Shape, Colour
- Street: People at their Workplaces
- Still Life: Spaces & Things from Home
- Wildlife: Animals & Their Habitat
- Photoessay: A Different Kind of Family Album
- Photoessay: Cell Phone Diaries

Rush in your entries now! Final Submission by March 31, 2013!
log on to: **www.betterphotography.in/poy** or SMS **POY** to **51818**
To send in print entries, pick up a copy of Better Photography for the participation form.



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GRUDGE MATCH:

Nokia Lumia 620 vs HTC 8S

Currently, there's only one handset that competes with the Lumia 620 and that's the HTC Windows Phone 8S. Let's take a closer look at both the handsets. BY **ROYDON CEREJO**

High-end smartphones are fun to play with, but that's a luxury not everyone can afford. This is why mid-range smartphones continue to be the best solution, as they offer most of the features found on pricey gadgets at a very good price. The latest handset to enter the game in the mid-end segment is the Nokia Lumia 620. Currently, there's only one handset that competes with the Lumia 620 and that's the HTC Windows Phone 8S. We compare both the handsets' specs to find which one is worth your hard earned money.



Nokia Lumia 620
(Approx.) Rs 20,000

We managed to get a quick hands-on with the Lumia 620 during the launch event of the Lumia 920. Judging from our short time together, we'll say the 620 is going to be a much more wallet-friendly handset than the 920 and will be much easier to carry around as well. It has a screen size of 3.8-inches and a WVGA resolution, which means it'll deliver sharp pictures and text. It also uses Nokia's ClearBlack display technology, so sunlight legibility should be good too.

The handset is powered by a dual-core Snapdragon S4 SoC, so expect it to perform quite well. Apart from the 8GB of onboard storage, which we're sure will keep most users happy, there's room for expansion via microSD cards. On the connectivity front, we have 3G, Wi-Fi dual-band, Bluetooth and NFC. Nokia has also managed to cram a 5 megapixel shooter that has an aperture value of f/2.4, which means it should fare well when it comes to low-light photography. While we don't have a confirmed price from Nokia, looking at how the Lumia 820 and the Lumia 920 have been positioned in the market, we're going to go ahead and guess that the handset would land somewhere around the Rs 20,000 price range when it launches.

HTC Windows Phone 8S
Rs 20,000

The HTC 8S is the younger sibling of the HTC 8X, and compared to the Lumia 620, features a larger 4.0-inch screen, with the same WVGA resolution. You also get Corning's Gorilla Glass to help keep scratches away. The handset is powered by the same SoC as the 620 and also shares the same amount of RAM (512MB). Surprisingly, the HTC 8S lacks NFC, dual-band Wi-Fi and a front-facing camera, all of which were present on the Lumia 620. However, HTC has managed to cram in a bigger 1700mAh battery owing to the larger screen, so we can expect the phone to deliver better standby/talk time.

Well, we pit the two mid-rangers against each other, and you can see the battle unfold on the page to your right.

The bottom line

The Nokia Lumia 620 has all the makings of a successful WP8 device in this price range (if our estimates are correct). While both phones' specs are very similar, the 620 manages to stand out by offering dual-band Wi-Fi, a larger aperture value, a front-facing camera, NFC, and more onboard storage. If Nokia manages to match the pricing of the HTC 8S, or prices the 620 even a bit higher, it looks like a much better option. The only thing that might hurt the 620 is the smaller battery.

- roydon@tech2.com

Jagdish Limbachiya

SMS us! ➤ Story code:TNH to 51818

SpecScan





	Nokia Lumia 620	HTC Windows Phone 8S
Display Size and resolution	3.8-inches, 480 x 800	4-inches, 480 x 800 ✓
Display Type	ClearBlack	S-LCD
Scratch Resistant	NA	Corning Gorilla Glass ✓
Dimensions	115.4 x 61.1 x 11 mm	120.5 x 63 x 10.3 mm
Weight	127	113 ✓
Sensors	Accelerometer, proximity, compass ✓	Accelerometer, proximity
Available in colours	Yes	Yes
Processor (dual-core)	Qualcomm Snapdragon S4, 1GHz	Qualcomm Snapdragon S4, 1GHz
RAM	512MB	512MB
OS version out of the box	Windows Phone 8	Windows Phone 8
On-Board Memory	8GB ✓	4GB
Memory card Support	Yes	Yes
Battery	1300 mAh	1700 mAh ✓
USB Connectivity	Yes (Standard micro USB)	Yes (Standard micro USB)
Connectivity options	3G, EDGE, GPRS, Wi-Fi dual-band, DLNA, GLONASS	3G, EDGE, GPRS, Wi-Fi, DLNA, GLONASS
GPS Software	Nokia Maps	Bing Maps
Bluetooth	Yes, v3.0	Yes, v3.1
NFC Support	Yes ✓	No
Camera Resolution	5 MP, Autofocus	5 MP, Autofocus
Aperture Value	f/2.4 ✓	f/2.8
Secondary Camera, Use	0.3 MP, Video calling, Self Portrait ✓	No
Flash	Yes	Yes
Camera Features	Touch focus, Landscape orientation, Geo-tagging, Auto and manual white balance, Still image editor, Lenses applications	Geo-tagging, touch focus, face detection, Scene modes, Macro, White balance
Video Recording (Rear camera)	Yes, 720p	Yes, 720p
Multimedia Support Out of the Box	Video - MP4,H.264,H.263,WMV	Video - MP4,WMV,H.264,H.263
	Audio - MP3,WAV,eAAC+,WMA	Audio - MP3,AV,WMA,eAAC+
Media Transfer Options	Drag and drop	Drag and drop
FM Radio	No	No
Noise Cancellation	Yes ✓	NA
Virtual keypad option (Out of the box)	Standard QWERTY	Standard QWERTY
Price	(Approx) Rs 20,000	Rs 20,000



Micromax A116 Canvas HD
Rs 13,990

www.micromaxinfo.com

VERDICT A budget phablet that offers great bang for your buck

LOVE Quad-core processor; HD display; ships with Android Jelly Bean.

HATE Should have had more strorage and a better battery.

SPECIFICATIONS

Weight: **156gm;** CPU: **1.5GHz quad-core;** RAM: **1GB;** Display: **5-inch, 720x1280;** Camera: **8MP;** Storage: **4GB;** SIM card slots: **2;** Connectivity: **Wi-Fi and Bluetooth;** Battery: **Li-ion 2000 mAh;** OS: **Android 4.1.2 Jelly Bean**

ANAND'S PICKS
PHABLETS FOR UNDER RS 15,000

Large-screen phones that offer great value for money.



WickedLeak Wammy Titan
Rs 12,499

www.wickedleak.org

VERDICT A phablet well priced for its configuration.

LOVE Light weight; qHD resolution; 1GB RAM; 8GB storage.

HATE Slightly sluggish UI.

SPECIFICATIONS

Weight: **160gm;** CPU: **1GHz dual-core;** RAM: **1GB;** Display: **5.5-inch, 540x960;** Camera: **8MP;** Storage: **8GB;** SIM card slots: **2;** Connectivity: **Wi-Fi and Bluetooth;** Battery: **Li-ion 2800 mAh;** OS: **Android 4.1 Jelly Bean.**

Karbonn A30
Rs 11,400

www.karbonnmobiles.com

VERDICT Want the largest display for the least price? Buy this one!

LOVE Large display; 8MP camera; good design.

HATE Heavy; should have had HD display; doesn't come with Jelly Bean.

SPECIFICATIONS

Weight: **280gm;** CPU: **1GHz dual-core;** RAM: **512MB;** Display: **5.9-inch, 480x800;** Camera: **8MP;** Storage: **4GB;** SIM card slots: **2;** Connectivity: **Wi-Fi and Bluetooth;** Battery: **Li-ion 2500 mAh;** OS: **Android 4.0.4 ICS**





Byond Phablet PIII
Rs 12,699

www.byondtech.com

VERDICT Worth considering, but slightly expensive for its feature set.

LOVE Large display; 8MP camera; ships with Android Jelly Bean.

HATE 1GB RAM would have been nice; slightly heavy.

SPECIFICATIONS

Weight: **230gm;** CPU: **1GHz dual-core;** RAM: **512MB;** Display: **6-inch, 480x854;** Storage: **4GB;** Camera: **8MP;** SIM card slots: **2;** Connectivity: **Wi-Fi and Bluetooth;** Battery: **Li-ion 2500 mAh;** OS: **Android 4.1.1 Jelly Bean.**

Swipe Fablet F1
Rs 9,490

www.swipetelecom.com

VERDICT One of the few phablets priced under Rs 10,000.

LOVE Good value for money; very good battery life.

HATE Single-core processor; doesn't come with Jelly Bean.

SPECIFICATIONS

Weight: **216gm;** CPU: **1GHz;** RAM: **512MB;** Display: **5-inch, 480x800;** Camera: **5MP;** Storage: **4GB;** SIM card slots: **2;** Connectivity: **Wi-Fi and Bluetooth;** Battery: **Li-ion 2500 mAh;** OS: **Android 4.0 ICS**





A HIGH-END SMARTPHONE WITH AN INCREDIBLE CAMERA OR A TRAVEL-ZOOM CAMERA AND A MID-RANGE SMARTPHONE?

ANAND TULIANI, DEPUTY EDITOR - TECHNICAL

CAMERA SUTRA

The first thing shutter bugs will look for in a smartphone is the camera. You see, it is paramount for trigger happy people that their smartphone's camera is able to take pristine shots—we're talking about digital camera quality shots here. High-end smartphones stress on this very feature, and the way they do so has changed drastically these days. This is evident from the optics used in phones these days. The latest high-end devices boast wide-angle lenses and large apertures, which has never been seen before. Brands like Nokia have plunged even further and devised optical image stabilisation (OIS). And when a camera the size of your nail packs all of that, of course you have to pay a heavy premium! But at the end of the day, it's all about what you need. With that kind of money, you can either buy a high-end smartphone or get a fairly high-end travel-zoom camera and a mid-range handset.

Consider the Nokia Lumia 920—a high-end smartphone with the most advanced camera in its segment. The camera is equipped with Carl Zeiss optics and Nokia's Floating Lens technology, which is nothing but OIS. The lens has a fixed focal length of 26mm (35mm equivalent) and a large f/2.0 aperture. The wide focal length helps capture large, wide photographs and landscapes look almost panoramic. It's commendable for a miniscule camera to have such a large aperture. Also, since it allows more light to reach the sensor, it goes a long way in getting well-exposed shots without having to use flash.

The user interface of the phone's camera app lets you take full advantage of the camera with great ease. You don't get complete manual control over exposure, but you can tinker with the EV, white balance and ISO values (100 to 800). The drawback here is that you don't have complete control over the aperture and shutter speed. Also, you can't afford to burden the battery by using the camera when you don't have much charge left. However, phone cameras have an upper hand over digital cameras in many respects. One of the biggest advantages is, you don't need to carry two separate devices as you get a decent, large-screen phone and quite a capable camera in a single device. Another advantage would be Internet connectivity in case you'd like to share your photos and videos instantly.

Now let's turn the table around and consider a premium travel-zoom camera and a sub-Rs 20,000 smartphone, the combined price of which would be the same as the price of a single high-end handset. It would be unfair to compare a diminutive phone camera with a full-fledged travel-zoom digital camera, but in this case, we're talking about what you can buy in the same budget. You get a mega-zoom lens that starts from 25mm, super macro capability, fully-manual mode, granular controls, plenty of scene modes, effect filters, a powerful Xenon flash and many other benefits.

THE LUMIA 920 IS AS GOOD AS A MAINSTREAM DIGICAM.

The combination of a travel-zoom digital camera and a smartphone is any day more value for money than a single, expensive device. Moreover, you won't fret as badly if you lose an entry-level phone. At least you'll have the camera and your precious memories with you—unlike losing a high-end smartphone. As for instant shoots and sharing photos, you get a full-fledged smartphone with an 8 megapixel camera if you buy a mid-range handset. However, if you have your heart set on buying a high-end smartphone with a great camera, then the Lumia 920 is one incredible device you can go for.

- anand.tuliani@chip.in



PC CONFIGS

GAMING - ENTRY-LEVEL		Rs 42,475
Processor	Intel Pentium G630, 2.7 GHz	3,400
Motherboard	Gigabyte GA-B75M-D3H, Intel B75	4,150
RAM	4 GB Kingston DDR3-1333	1,250
Hard disk	Seagate Barracuda 7200.14, 500 GB	3,350
Graphics card	Zotac GeForce GTX 550 Ti, 1 GB GDDR5	7,800
Optical drive	LG GH22 SATA 22x DVD-writer	950
Monitor	BenQ GW2250HM - 22-inch LED	8,650
Keyboard	Logitech Gaming Combo G100	1,750
Mouse	Included in combo	-
Speakers	F&D A520, 2.1 stereo	1,875
PC Case	Cooler Master Elite 311	2,350
Power supply unit	Antec VP450 - 450W	2,650
Operating system	Windows 7 Home Basic	4,300
TOTAL		**42,475**

GAMING - MID - RANGE		Rs 70,745
Processor	AMD FX-6100, 3.3 GHz	7,650
Motherboard	Asus M5A97 Evo-R2.0, AMD 970	7,450
RAM	Corsair XMS3 - 2 x 2 GB DDR3-1600	2,000
Hard disk	Seagate Barracuda 1 TB	4,150
Graphics card	Zotac GeForce GTX 560 Ti OC - 1 GB GDDR5	14,000
Optical drive	LG GH22 SATA 22x DVD-writer	950
Monitor	AOC i2353PH - 23-inch IPS LED backlit	12,700
Keyboard	Logitech Media Keyboard K200	470
Mouse	Razer Abyssus	1,735
Speakers	Sony SRS D8, 2.1 stereo	4,290
PC Case	Corsair Carbide 300R	4,300
Power supply unit	Corsair CMPSU-600GS	4,850
Operating system	Windows 7 Home Premium	6,200
TOTAL		**70,745**

HOME		Rs 28,400
Processor	Intel Pentium G630, 2.7 GHz	3,400
Motherboard	Gigabyte GA-B75M-D3H, Intel B75	4,150
RAM	4 GB Transcend DDR3-1333	1,250
Hard disk	Seagate Barracuda 7200.14, 500 GB	3,350
Graphics card	Integrated graphics	-
Optical drive	LG GH22 SATA 22x DVD-writer	950
Monitor	Samsung S20B300B - 20-inch LED	6,570
Keyboard and mouse combo	Logitech Deluxe 250 Desktop USB	680
Speakers	F&D A510, 2.1 stereo	1,950
PC Case	iBall Pride	1,800
Power supply unit	Included with the PC Case - 250 Watts	-
Operating system	Windows 7 Home Basic	4,300
TOTAL		**28,400**

HTPC		Rs 77,850
Processor	Intel Pentium G630, 2.7 GHz	3,400
Motherboard	Asus P8B75-M, Intel B75	6,450
RAM	4 GB Transcend DDR3-1333	1,250
Hard disk	Seagate Barracuda 7200.14, 1 TB	4,150
Graphics card	ASUS GT620-1GD3-L - 1 GB DDR3	3,450
Optical drive	LiteOn iHBS312, 8x Blu-ray Writer	7,250
Monitor	AOC i2352phz - 23-inch IPS LED backlit	15,900
Keyboard and mouse combo	Logitech Wireless Combo MK320	1,700
Speakers	Creative Gigaworks T3, 2.1	16,000
PC Case	Antec Micro Fusion Remote 350	12,100
Power supply unit	Included with the PC Case - 350 Watts 80 Plus	-
Operating system	Windows 7 Home Premium	6,200
TOTAL		**77,850**

LAPTOP CONFIGS

BUDGET
PROCESSOR Intel Pentium P6200, Intel Core i3, Intel Core i5
MEMORY 2 GB or more
HARD DRIVE 320 GB or higher
DISPLAY 14.1-in or 15.6-in
GRAPHICS On-board or Discrete
WEIGHT 2.3 Kg to 2.7 Kg
OTHER Bluetooth, DVD-writer, Wi-Fi b/g, Webcam
PRICE RANGE Up to Rs 35,000



SAMSUNG NP300E5C-A0BIN

Rs 22,900

CPU Intel Celeron B820, 1.7 GHz; **MEMORY** 2 GB; **HARD DISK** 320 GB; **DISPLAY** 15.6-in; **GRAPHICS** On-board; **WEIGHT** 2.28 Kg; **OS** Windows 8; **OTHER** Wi-Fi, Webcam, HDMI, Card reader



SONY VAIO E14123CN

Rs 31,990

CPU Intel Core i3-3110M, 2.4 GHz; **MEMORY** 2 GB; **HARD DISK** 500 GB; **DISPLAY** 14-in; **GRAPHICS** On-board; **WEIGHT** 2.4 Kg; **OS** Windows 8; **OTHER** Bluetooth, HDMI, Webcam



HP PAVILION G6-2226TU

Rs 33,500

CPU Intel Core i3-3110M, 2.4 GHz; **MEMORY** 4 GB; **HARD DISK** 500 GB; **DISPLAY** 15.6-in; **GRAPHICS** On-board; **WEIGHT** 2.47 Kg; **OS** Windows 8; **OTHER** DVD-writer, Bluetooth, HDMI, Webcam



LENOVO ESSENTIAL G580

Rs 34,900

CPU Intel Core i3-3110M, 2.4 GHz; **MEMORY** 2 GB; **HARD DISK** 320 GB; **DISPLAY** 15.6-in; **GRAPHICS** Nvidia G610M; **WEIGHT** 2.7 Kg; **OS** Windows 8; **OTHER** DVD-writer, Bluetooth, Wi-Fi, Webcam, HDMI

MAINSTREAM
PROCESSOR Intel Core i3, Intel Core i5
MEMORY 3 GB or more
HARD DRIVE 320 GB or higher
DISPLAY 14.1-in or 15.6-in
GRAPHICS On-board or Discrete
WEIGHT 2.3 Kg to 3 Kg
OTHER Bluetooth, DVD-writer, Wi-Fi b/g or n, Webcam
PRICE RANGE Rs 35,000 To Rs 45,000



LENOVO IDEAPAD Z580

Rs 38,990

CPU Intel Core i3-3110M, 2.4 GHz; **MEMORY** 4 GB; **HARD DISK** 1 TB; **DISPLAY** 15.6-in; **GRAPHICS** On-board; **WEIGHT** 2.7 Kg; **OS** Windows 8; **OTHER** Bluetooth, Wi-Fi, Webcam, HDMI



HP PAVILION G6-2202TX

Rs 43,700

CPU Intel Core i5-3210M, 2.5 GHz; **MEMORY** 4 GB; **HARD DISK** 500 GB; **DISPLAY** 15.6-in; **GRAPHICS** AMD Mobility Radeon HD 7670M; **WEIGHT** 2.4 Kg; **OS** Windows 8; **OTHER** DVD Writer, Bluetooth, Webcam, Wi-Fi, HDMI.



ACER V5-571G

Rs 45,000

CPU Intel Core i5-3317U, 1.7GHz; **MEMORY** 4 GB; **HARD DISK** 750 GB; **DISPLAY** 15.6-in; **GRAPHICS** On-board; **WEIGHT** 2.3 Kg; **OS** Windows 8; **OTHER** DVD-writer, Bluetooth, HDMI, Webcam



LENOVO IDEAPAD U410

Rs 45,900

CPU Intel Core i5-3317U, 1.7GHz; **MEMORY** 4 GB; **HARD DISK** 750 GB; **DISPLAY** 15.6-in; **GRAPHICS** On-board; **WEIGHT** 2.3 Kg; **OS** Windows 8; **OTHER** DVD-writer, Bluetooth, HDMI, Webcam

ULTRABOOK
PROCESSOR Intel Core i3, Intel Core i5, ULV
MEMORY 2 GB or more
HARD DRIVE 320 GB or higher
DISPLAY 13.3-inch to 15.6-inch
GRAPHICS On-board or discrete
WEIGHT 1.5 Kg to 2.2 Kg
OTHER Bluetooth, Wi-Fi, Webcam, Card reader
PRICE RANGE Rs 45,000 to Rs 1,00,000



SONY VAIO T14113CN

Rs 48,700

CPU Intel Core i3-3217U, 1.8 GHz; **MEMORY** 4 GB; **HARD DISK** 500 GB + 32 GB SSD; **DISPLAY** 14-in; **GRAPHICS** On-board; **WEIGHT** 1.9 Kg; **OS** Windows 8; **OTHER** Bluetooth, Webcam, HDMI



HP ENVY X2 (11-G004TU)

Rs 62,307

CPU Intel Atom Z2760, 1.8 GHz; **MEMORY** 2 GB; **HARD DISK** 64 GB; **DISPLAY** 11.6-in; **GRAPHICS** On-board; **WEIGHT** 1.4 Kg; **OS** Windows 8; **OTHER** Wi-Fi, Webcam, HDMI



ACER ASPIRE S7

Rs 87,990

CPU Intel Core i7 3517U, 1.9 GHz; **MEMORY** 4 GB; **HARD DISK** 256 GB SSD; **DISPLAY** 11.6-in; **GRAPHICS** On-board; **WEIGHT** 1.22 Kg; **OS** Windows 8; **OTHER** Bluetooth, Webcam, microHDMI



SAMSUNG NP900X4C-A01IN

Rs 1,01,300

CPU Intel Core i7 3517U, 1.9 GHz; **MEMORY** 8 GB; **HARD DISK** 256 GB SSD; **DISPLAY** 15-in; **GRAPHICS** On-board; **WEIGHT** 1.65 Kg; **OS** Windows 8; **OTHER** Bluetooth, card reader, HDMI, Wi-Fi



SMS us! ➢ Story code: FFC to 51818

THE FUTURE OF CARS

With fuel prices rising and technology advancing, automobiles are undergoing their most significant reinvention ever. Get ready for the coming age of hybrid and all-electric cars.

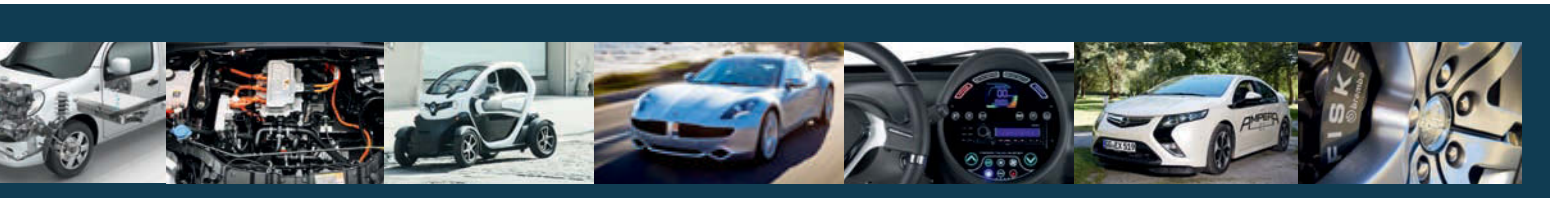
They're already here: cars which use electronics to enhance or replace fossil fuel combustion are becoming quite a common sight in many parts of the world. The chicken-and-egg situation is also becoming less of a problem, with dedicated charging stations and service networks popping up everywhere. Electric and hybrid-electric cars are now poised to make the jump from niche novelties only capable of short hops around the city, to powerful beasts capable of hauling cargo, winning races and cruising cross-country.

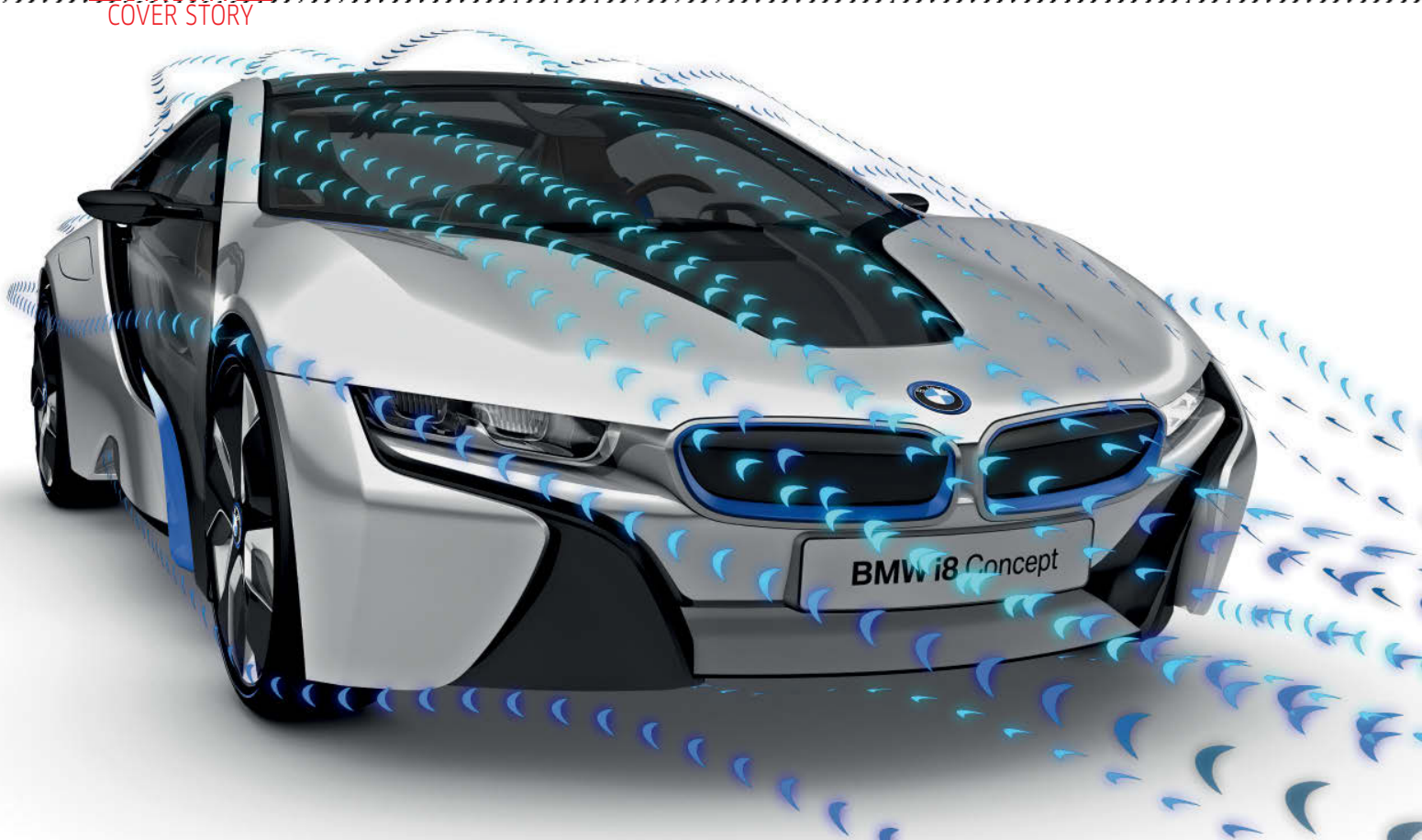
In India, we still have a long way to go. While some countries and local municipalities are trying to subsidize electric cars and the required charging infrastructure, huge parts of India still struggle with unreliable electric grids and daily load shedding. The price premium commanded by such cars upfront might result in savings over the course of their lives, but is still a significant deterrent. Government incentives will be required to encourage car manufacturers to launch hybrid or electric models and variants here.

Mahindra Reva is India's best known manufacturer of electric cars. With new models about to be launched and plans to sell up to 10,000 cars a year, things look bright. Appropriately enough for India, electric two-wheelers are also growing in popularity. The relatively lower cost of entry and less demanding usage of two-wheelers could underscore a big push towards cleaner transportation in India, which will pay off in terms of lower air pollution.

Around the World

There are plenty of options out there today for those interested in going green. We've identified the most significant models available anywhere in the world and even taken three of them for a test drive. Read on to see how they stack up.





THE ROAD TO ALL-ELECTRIC CARS

Combustion engines might be replaced altogether at some point in the future. CHIP examines the current state of electric car technology.

BY JURGEN PANDER

The car of the future? No one knows what that is. We aren't saying this to be pessimistic about the progress of research and development, but because it is the truth. Even auto industry insiders themselves do not believe that they know what the car of the future will be like. These surprising findings were published a few months ago by the consultancy firm KPMG. The survey involved interviews with the top managers of 200 of the largest companies in the automobile sector on the topic of "The car of the future". The answers revealed that people are certain that in the faraway future, all means of transportation will be electrically powered. How the electricity will be generated and supplied to vehicles though is still anyone's guess. Dieter Zetsche, chairman of the board of management of Daimler AG, the company that proudly calls itself the inventor of the automobile, says what everyone agrees is the only known fact: "In the next 50 years, there will certainly not be any combustion engines left."

Most of the cars on this planet are still built and used with classic petrol or diesel engines. However, now the end of this technology, which was invented over a hundred years ago, is in sight. This is because sometime soon these engines will have no fuel to run on. No two experts share an opinion of exactly how long the oil wells on Earth will continue to bubble, but there is no argument that crude oil deposits are significantly depleted, and that it is becoming more difficult and more expensive to obtain fresh supplies. By the way, the same also applies for the alternative fossil fuels like natural gas and LPG. And thus at present, practically every car manufacturer is working on the electrification of the power train, since at least there is currently consensus among most of the manufacturers that electricity will replace fossil fuels.

The transition from combustion to electrical engines will however not be smooth. This is already happening, primarily through the use of so-called hybrid engines. The Greek word "hybrid" means "mixed" or "from different origins", and more and more people are now driving cars with two types of engines on

board. Currently, buyers in some parts of the world can select from around three dozen hybrid models, ranging from small cars to luxury sedans; from family vans to sport utility vehicles.

The idea of running a car completely or partially with the power of an electric motor is almost as old as the automobile itself. In 1888, only two years after Carl Benz patented his three-wheeled motor car, the Cobourg machine manufacturer Andreas Flocken presented the Flocken Electric Car to the world. The car was built for at least 15 years, and was in no way the only model with a battery as the energy source and an electric motor propelling it forward.

The hybrid idea is 111 years old

Even the hybrid car is not a recent invention. Ferdinand Porsche introduced the first model powered by a combination of combustion engine and electric motor in 1901. Technically, it was a masterpiece, although the model remained insignificant to further development of the automobile. Only in 1989 did Audi again pick up the principle with a prototype. Then in 1997, the company offered a model called the Audi Duo with a 90 PS diesel engine and electric motor; 500 units were to be built but fewer than 100 found buyers. This might have been due to the price, since the car cost over US$ 41,000 (approx Rs 22.2 lakhs), nearly twice the price of the basic petrol model. The Audi Duo was also simply at the wrong place at the wrong time.

The new technology had generated a lot of interest in Japan at the same time. Toyota launched its Prius model, an unshapely and compact car with a hybrid drive system. The car was the first mass-produced vehicle with a combination of petrol and electric motors, and completely changed the world's perception of "eco-friendly" cars. What seemed in the beginning like a technological gimmick was transformed into a working, practical solution which helped in significant fuel savings, especially in city traffic–and most importantly, did not feel more difficult to drive. The average fuel consumption of the current Prius model is around 3.9 liters per 100 kilometers; the CO2 output is 89 grams per kilometer. No wonder that the car is always at the head of environmental rankings.

In the meantime, numerous hybrid alternatives have come into the market in addition to the Prius. Naturally, their implementation of hybrid drive is not the same. For example, the technologies are different in terms of how the different motors interact. In a parallel hybrid drivetrain design, the electric and combustion engines together power the car; the electric motor however is not able to move the vehicle on its own. The advantage of this configuration is that both motors, which operate like teammates, are rather small and thus can be built into a small space. The disadvantage is that the comfort of a purely electric engine is absent, and the advantages of nearly silent movement and zero air pollution are lost.

The other basic form of hybrid motor technology is called serial hybrid drivetrain. In this case, the electric component of the engine has enough power to move the car on its own. The combustion engine kicks in when more engine power is required or only if the electric motor needs to be charged during the drive. The combustion engine basically increases the electric range of the vehicle, but does not contribute to the mechanics that actually move the car. Naturally, there are also other forms of hybrid vehicles. The petrol or diesel engine can be combined



The Lohner-Porsche Mixte, developed and built by Ferdinand Porsche, had a combination of petrol engine and electrical motors, making it the first hybrid car in history.



Audi presented the Duo, a prototype with real hybrid drive, at an international auto expo in 1989. In 1997, a successor model was the first to be available in the market. Only about 100 of them were ever produced.



The Prius really kicked off mass production and use of full hybrids. The first generation was positioned as a compact car, while its slightly larger second- and third-generation successors fall in the medium-size car segment.



The luxury Model S from Tesla Motors is driven exclusively by electricity. It should have a range of up to 480 kilometers and is supported by a network of charging stations across the US. The price starts at US$ 70,000 (approx Rs 37,78,775).

with an electric system optimally depending on the purpose and the vehicle type.

Hybrid even without an electric motor

The term “Hybrid vehicle” can also be applied to cars that use technology in other ways. So-called micro-hybrids for example do not have an electric drive motor at all, but still use electrical energy. These are cars with start-stop automatic systems including a special generator for recovering braking energy, called “recovery” by experts. How does it do this? For example, when the car is standing at a traffic signal or an obstruction with the drivetrain disengaged, the combustion engine is shut down. When the road is free, you just need to tap the clutch pedal to restart the engine so that you can move forward. Technically, this system costs nothing; a start-stop-system costs around 100 euros (approx Rs 7,233) to implement, but saves up to five percent of your fuel in city traffic. The braking energy recovery comes into play when going downhill or just free-rolling to a a red traffic light: part of the excess kinetic energy is directed to the dynamo to produce electricity. It does not require a single drop of fuel to power ancillary devices such as lights and gadgets, which is traditionally generated by the engine and thus contributes to fuel consumption. Recuperation helps in saving fuel, even if only a fraction of a percent.

The goal of all hybridization measures, however, is to conserve more fuel. Every litre of petrol or diesel that is not burned means less CO2 in the air. In addition to conserving fuel, protection of the atmosphere by reducing emissions from individual vehicles is another important reason for investing in the production of cars that are more economical. A third reason is on display at every petrol pump—the ever-increasing prices of petrol and diesel. Even if fuel prices come down a little sometimes, the general trend is upwards. Moreover, an electric engine is much more efficient than a combustion engine in terms of conversion of fuel to energy. The efficiency of a diesel engine is around 45 percent, but the addition of an electric motor transforms a good 95 percent of the energy into motion. Thermal power plants achieve an efficiency of up to 60 percent, so it could also be sensible in the future to power electric cars with miniature generators of their own.

The difference in efficiency between combustion engines and electric ones is especially obvious in the so-called partial-load operational range, which refers to use cases in which the engine is used below its full capacity. This is often the case in city traffic or during a relaxed drive. Electric motors also do not require any energy when the car is standing still. Maximum torque is available from the very first rotation of the motor and they can, like dynamos, generate electricity when braking and store it in batteries. Since they are especially effective where petrol or diesel engines have their weak points, hybrid cars with complementary electric motors are seen as the current ideal.

The next level of automobile electrification after the micro-hybrid is the so-called “mild-hybrid”. Cars with this drive system have a combustion engine and an electric motor, but the electric motor is by itself not powerful enough to propel the car forward (parallel hybrid). When such a car gradually rolls to a stop or the brake is applied, the electric motor functions as a dynamo and generates electricity which it then converts into kinetic energy when the car is later accelerated. The fuel saving potential of



The abbreviation “MHD” stands for Micro-Hybrid Drive. This describes the Smart's automatic start-stop system, which turns off the engine at traffic signals, and an intelligently controlled starter generator.



Honda's Insight is a mild hybrid. The electric motor supports a petrol engine, but is not capable of moving the car on its own. This solution is cheaper and much less efficient than a full hybrid.



Engines of the second- and third-generation Prius. Most of the current full-hybrid cars are based on two electric generator motors which are connected to the combustion engine through a transmission. The expense is worth it.



Hybrid vision: In 2015, BMW will offer its i8 which combines an electric drive with a specially developed three-cylinder engine. The sports car will cover 100 kilometers using only 2.7 liters of petrol.

cars with a mild-hybrid drive is between 15 and 20 percent.

In full-hybrid cars, the basic structure is identical to that of mild-hybrids, but they have a more powerful electric motor together with a battery with which these cars can be run purely on electricity. Whether this helps you in staying absolutely silent when driving into your neighbourhood, or whether short stretches can be covered purely on the power of electricity and thus in an emission-free manner, depends on the size of the battery. This is the critical element of any electrical system. Current Lithium-ion batteries are quite heavy, very expensive, and also sensitive in terms of operating temperatures. The fuel savings of full-hybrid vehicles as compared to cars with conventional engines are 20 to 30 percent.

Another step toward the purely electric car is represented by plug-in hybrid vehicles. These are hybrid vehicles whose batteries are not only charged through recovery of braking energy or by a combustion engine, but also through the regular electricity grid (plug-in refers to the connecting of the charging cables). Depending on the size of the batteries, plug-in hybrid vehicles can usually cover longer distances. Examples for this type of vehicles are the brand-new Toyota Prius PHEV with an electric range of 25 kilometers as well as the Opel Ampera and the Fisker Karma, each of which manages 80 kilometers on electricity alone.

Plug-in hybrid cars as well as electric vehicles in which a combustion motor only recharges the battery and does not actually move the vehicle, can be called the last level of hybridization before the purely electric car. This will have only an electric motor and a battery, and will run entirely without any fossil fuels. It will thus be CO2 free, as long as the electricity with which the battery is charged originates from eco-friendly sources such as water, wind, or solar energy. Eco-friendliness is somewhat negated if the electric energy is generated by coal or gas power plants, since CO2 is still produced while generating electricity. An efficient electric car that runs on electricity generated in this manner could even end up contributing more CO2 per kilometer than an economical vehicle with petrol or diesel engine. Each country has its own approach to power generation, but renewable sources are catching on across Europe and the trend is spreading around the world.

In the end, price is the deciding factor

For buyers of hybrid or electric vehicles, the cost of buying and running such a car is more important than CO2 emissions. Hybrid models are of course more expensive than conventional cars, but it's easy to make a calculation. The hybrid car must start paying off its extra cost in terms of fuel savings and efficiency. The most volatile variable in this calculation is the cost of fuel. It changes erratically, but no one can deny that we will see the price rise to Rs 100 per litre in two or three years.

On the other hand, experts believe that the cost of electricity will rise as well. According to a calculation by the department of automobile economics at Nuertingen University, the change from a petrol-only to an electric car with today's technology and prices is only worth it if you travel more than 178,500 kilometers. In comparison with a diesel car the electric car driver must travel 270,000 kilometers before he saves any money. This is mainly due to the sky-high cost of batteries today. If battery prices can be cut in half over the next few years, electric cars will be more attractive to buyers. Subsidies or tax incentives could also contribute to this, but it has already been seen that local governments in some parts of the world are disincentivizing eco-friendly cars and solar panels due to the resulting loss of revenue to existing utility providers.

The cars of the future will certainly arrive, but no one knows how they will be driven and whether they will be cheaper and more environment-friendly than today's cars. The only thing that is certain is that people aren't going to abandon personal vehicles anytime soon.



A HYBRID WINS LE MANS

FLYWHEEL INSTEAD OF BATTERY

The 24-hour Le Mans race took place for the 80th time in 2012 and for the first time, hybrid vehicles won the long distance race. The first and second positions were claimed by two Audi R18 e-tron Quattro cars. The rear wheels of these prototypes were driven by a diesel motor with over 500 PS. The electronic system is connected with the front wheels.

Energy recovered while braking is used to support acceleration later. The special feature of this technology is energy storage. The race car does not use batteries or capacitors. Instead, a carbon fiber flywheel rotates in a vacuum and is accelerated and decelerated by another motor-generator unit. This unusual technological solution offers a few advantages for racing, in which the car experiences continuous changes between full acceleration and hard braking: the flywheel is lighter than any battery and much less sensitive to high temperatures and high loads than, for example, a Lithium-ion battery. Due to the use of a flywheel, energy can be stored only for a short time. This technique is therefore unsuitable for consumer vehicles.

TEST DRIVE

AMPERA
A tempting option

Opel's e-car doesn't give us range anxiety and still offers the feel of an electric car.

Is it really an electric vehicle? Opel's parent company General Motors stresses that the Ampera and the technically identical Chevrolet Volt belong to the same category—although the petrol engine, intended to be a range extender, helps in propulsion as well. Technically speaking, the Ampera is thus a power-split hybrid, just like the Toyota Prius.

There is some flexibility because of this. You can use Ampera is a real electric vehicle and cover a distance of almost 100 kilometers, which should be more than enough to get most people to their office and back home—that too at speeds of up to 161 kmph, with the only noise being that of the wind and the tyres. With one battery charge, you can drive a maximum of 80 kilometers, so you will need to charge the battery between each long trip. The charge electronics appears to be very finicky here: charging requires a six Amperes of stable current, and will simply cut off if the supply is inadequate. The voltage at the sockets in an underground car park we tried proved not to be stable enough, so as a crude workaround we pulled a cable upstairs through a narrow window. This sort of thing is of course impractical for everyday usage and impossible in bad weather. Still, it worked, and facilities will improve with time.

Electric driving is an experience: it was clear to us right from the beginning that the car delivers its full torque of 370 Nm off the cuff and does not make any perceptible sound in the process. The car is able to starting and brake so quickly that it tempted us into some rather non-traditional driving habits! We wound up driving too fast very often in the Ampera simply because our ears deceived us into thinking we were not moving fast enough.

If you're thinking of a family picnic over the weekend, the Ampera will need to use its hybrid engines. Of our planned 360 km route, the electric engine managed just 60 at a highway speed of 120 kmph. The combustion engine had to pitch in for the remaining distance. If you are not looking at the controls, you won't even notice the transition from one operating mode to another: there are no jerks, and at an average speed, the engine noise is drowned out by the road and wind noise. The fuel-based range extender also fires up in case the car encounters gradients or accelerations and is audible enough, but not loud. The engine is really distracting only in city traffic. Opel has therefore designed something called the "Stop" mode. If this mode is activated on a highway or country road, provided there is enough capacity in the battery, the petrol engine takes over and electrical energy is saved up for city travel.

The car's other features are however not as well thought-out and optimized as the mechanics. The 7-inch info-navi-entertainment display has no less than 29 touch buttons, seven mechanical buttons and two turn-and-press knobs. There is another controller to the left of the steering wheel, and the display itself is a touchscreen. We have no idea how much time it could take for someone to get comfortable with this kind of dashboard. After a week, we still couldn't figure out how to set the air conditioner so that it didn't gobble up the battery's power.





TECHNICAL DATA

PRICE	approx Rs 33,14,797
ADDITIONAL BATTERY	–
BATTERY CAPACITY	16 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	40-80 km
ADDITIONAL RANGE	Over 500 km
CHARGE TIME (230 V)	6-11 hours**
ELECTRIC DRIVE POWER	111 kW/150 PS
COMBUSTION ENGINE POWER	63 kW/86 PS
DIMENSIONS (LxWxH)	4.5 x 1.8 x 1.4 m
WEIGHT WITH BATTERIES	1,732 kg (incl. driver)
NUMBER OF SEATS	4
BATTERY WARRANTY	8 years/1,60,000 km

*With generator for extending the range
** Depends on charger used

It's expensive to run, but this car gives us the most comfortable experience.

Wait for higher fuel prices

If you drive 160,000 kilometers—which is the warranty limit for the batteries—only on electric power, the Ampera consumes electricity €5,500 worth of electricity as opposed to a diesel car which at 20 kmpl would rack up €12,000 worth of fuel expenses. The saving of €6,500 still doesn't offset the premium of approximately €20,000 you'd pay for this car as opposed to a comparable Opel Astra Diesel.

The result shatters our optimism. Despite this, we cannot stop ourselves from keeping a watch out for reasonable discounts for the Chevrolet Volt. The technical twin of the Ampera is available for €40,000 with all the extra features at some showrooms, and if the fuel prices go up, the car will pay itself off sooner than the calculation above indicates.

TEST DRIVE

TWIZY
The fun box



The low-priced Renault Twizy is more of a replacement for a scooter than for a car.

Right from the first time you see Renault's Twizy, you understand that it doesn't really come off as a complete car: it does not have any side panels, a trunk or a stereo, and only there's only one additional seat for a passenger. Those familiar with driving scooters won't need anything else, which is why we can see the advantages of the Twizy: a roof, a windscreen, wipers and an airbag count as safety and comfort features.

After testing it for a week the entertainment factor of the Twizy was also very apparent. Wherever we took it, children laughed and pointed at the funny-looking car while grown-ups ask about the technical details and if it's worth the price. "Does it run without doors?" Yes, it does: the windscreen in front of the driver's seat works just fine and you'll feel safe and comfortable at speeds of up to 80 km/h. The narrow passenger's seat looks quite different than the driver's seat: it is very cozy but later on if it rains, it is extremely uncomfortable. Besides this, the interior surfaces are water-resistant and there are drainage holes in the floorboard, which means you can simply wash off the dirt with a garden hose as and when the vehicle gets muddy.

The Twizy is surprisingly stable even though the extremely tall body might seem to result in an unfavorable center of gravity. A large part of the dead weight of almost half a tonne is mostly the battery and since it is placed at a low position, turning the vehicle is almost like riding a go-cart. It also leads the way in terms of city-friendliness: in spite of a low capacity of 18 PS, it can manage 50 km/h and takes off with full thrust as soon as you step on the gas pedal, which is more than what most cars can promise. The Twizy is permitted on the highway but that's where our patience wore off completely—it's just no fun being overtaken all the time! Apart from freeways, the small car is the most fun on rural roads. For us, it wins against every scooter because you can enjoy your surroundings more without a helmet and the noise of an engine.

Trips out into non-urban areas needs to be planned well in advance, because Renault's capacity of reaching 100 kilometers isn't really very accurate—after a 70-kilometer tour, the remaining capacity shown was only seven kilometers. Unlike most of the other electric cars, charging the battery takes only three hours. You have to be able to find a suitable charging station on your way.

A supposedly trivial detail was actually the real highlight for us: the integrated spiral charging cable. Fellow drivers who own large electric cars complain that their charging cables lie on the ground and become dirty. Sooner or later their clothes and hands also become dirty because of this. The Twizy's cable stayed as clean at the end of the test as it was at the beginning.

TECHNICAL DATA

PRICE	approx Rs 5,55,354
ADDITIONAL BATTERY	approx Rs 3,610*
BATTERY CAPACITY	6.1 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	100 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	3.5 hours
ELECTRIC DRIVE POWER	13 kW/18 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	2.3 x 1.1 x 1.5 m
WEIGHT WITH BATTERIES	562 kg**
NUMBER OF SEATS	2
BATTERY WARRANTY	Depends on the individual battery model

* Runtime for 36 months, for a kilometer reading of 7,500km/year
** Calculated including 75kg driver's weight



We had fun with the Twizy and appreciated its potential as a city car.

The spoilsport: battery charging costs

The pleasure of the Twizy is completely outweighed when it comes to the cost: the purchase price is much higher than that of the most premium scooters or, for example, the yet-to-be-released BMW C1 which can more rightfully be compared to the Twizy because of its roof. The electricity costs for such scooters come to approximately a third of the price of equivalent amounts of petrol. However, a battery rental fee must be added to the running costs, which amounts to approximately 50 Euros (Rs 3,610) per month, even in winters when the vehicle will have to remain in your garage. A scooter or motorcycle can run almost 1,000 kilometers on fuel worth the same amount and so, compared to a small car with a diesel motor, the Renault doesn't really fare well. Like most of the latest electronic cars, a desire to save money will not be the decisive factor for buying it till battery prices fall significantly. The search for such a car with affordable futuristic technology does not conclude with the Twizy, although it does provide a tantalizing glimpse of the design and convenience of future vehicles.

TEST DRIVE

SMART
City runner

You can't see the technology just by looking at the Smart but it's bound to attract attention of wherever it goes.

Our first date with the Smart fortwo electric drive was ill-fated. A colleague had driven it all day long and then was charging it in an underground parking lot. As we got into the car at 19:30 the range indicator was at 69 kilometers, and the trip which we had measured beforehand with Google Maps came to 61 km through a highway and some country road. During the trip, things started to get a bit shaky: how much range would it cost to keep the headlights on? We were gripped by the anxiety of running out of power even before the drive had begun. When we connected the car to a socket later in the evening, the indicator still showed a capacity of 20 km remaining. Either we turned out to be power-saving experts, or the range indicator showed really pessimistic calculations about our style of driving.

The E-Smart is clearly not made for the kind of drive we attempted, especially the part about driving on freeways. The engine delivers a continuous performance of 35 kW (48 PS) and the maximum speed, like other electric cars, is a modest 125 kmph. The Smart shows a completely different character in the city: you get 55kW of power (75 PS) for short bursts, which makes the mere 900 kg weight of the Smart run like a demon. It's a real delight to overtake swanky cars at signals, but it is also a bit dangerous: pedestrians who want to cross the road underestimate the speed of this noiseless gnome.

Our test car was a completely normal Smart. The electric engine has been offered as an option for over ten years, which is why it doesn't feel like a modified car. The trunk is exactly as small as the one in petrol-based models, and the list of features is also similar: seat heater, air conditioner, cruise control, and radio with an iPhone connection. Charging the battery is a bit fussy, since the the provided charging cable and power control which are integrated into the trunk lid. Unlike the Twizy or other common devices, you can't just remove a safety cover and take the cable from the car. Instead, you have to lug the heavy (and permanently dirty) component around the rear to connect it to the car from the outside. That is why it is sensible and practical to buy an extra cable and leave it attached to the outlet in your garage at home.

The power supply must be stable at 10 Amperes. If the voltage drops when charging, the electronic system reduces power consumption and the process takes much longer. In the case of our lower-rated underground parking lot power plug, charging the battery completely took thirteen hours.





TECHNICAL DATA

PRICE	approx Rs 13,65,638
ADDITIONAL BATTERY	approx Rs 4694/month
BATTERY CAPACITY	17.6 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	145 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	6 - 7 hours, 1 hours with optional onboard charger
ELECTRIC DRIVE POWER	55 kW/75 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	2.7 x 1.5 x 1.6 m
WEIGHT WITH BATTERIES	975 kg
NUMBER OF SEATS	2
BATTERY WARRANTY	up to 10 years (conditions apply)

We were irritated by the fussy charging system but enjoyed the looks we got.

Economical only for people who drive long distances often

When it comes to cost, Smart isn't exactly cheap: if you use the car for 30 kilometers a day, then the running costs including taxes and insurance is higher than the Smart Diesel, which by the way is cheaper by 7,000 euros. Like Twizy, the charging cost, which is at least 65 euros, plays a huge part here. In case of the Smart, your bill will rise to unmanageable levels if the car travels over 100 kilometers every day. Someone who drives a lot should include the cost of a quick charger in the plan. With this option (priced at a considerable premium), the car can be recharged with a 4000 V connection within an hour for over a range of over 100 kilometers. Pizza delivery services, couriers and customers with similar needs could actually really save cash with the Smart fortwo electric drive over the course of the car's life, but it's hard to see it working out for most ordinary users who just want to get from point A to point B.

We returned the little zipper with considerable reluctance. Judging by our own reaction and the interest shown by friends, colleagues and absolute strangers, this car definitely has a future. Everyone who came in contact with it was at least somewhat impressed. We see this as a positive sign for electric vehicles and for urban commuting habits and we look forward to a time when costs reduce.



TESLA ROADSTER 2.5

A star-quality sportscar

Most of the 2,500 units of this limited edition of the Tesla Roadster are already on roads worldwide. Some of the lucky owners of this electric sports car (which sold out in North America) include Google founders Larry Page and Sergej Brin as well as Arnold Schwarzenegger. With a maximum range of 340 km and maximum speed of 201 kmph, Tesla is definitely the highest-performance electric car as also the most expensive. This nippy little car costs just under 102,000 Euros (approx Rs 73,66,215). In contrast to the unbeatable battery capacity of 56 kWh, the charging time of around 18 hours is quite inconvenient. Sadly that's part of the package.

TECHNICAL DATA

PRICE	approx Rs 73,66,215
ADDITIONAL BATTERY	–
BATTERY CAPACITY	56 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	340 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	4-6 hours*/ 18 hours **
ELECTRIC DRIVE POWER	225 kW/ 302 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	3.9 x 1.9 x 1.1 m
WEIGHT WITH BATTERIES	1,335 kg
NUMBER OF SEATS	2
BATTERY WARRANTY	Unknown

*when charged with the Home Connector (optional)
**when charged with the Mobile Connector





RENAULT KANGOO ZE

French workhorse

The Kangoo ZE is the world leader in electric commercial vehicles that are mass produced. No wonder then that the pioneer in e-cars has won numerous awards such as the trophy for "International Van of the Year 2012". The minivan has a range of up to 170 km without support from a combustion engine. The speed is limited to 130 kmph, and the charging time using a common power point is about 8 hours. It costs around 9,000 Euros (approx Rs 6,49,960) more than the petrol version, plus 86 Euros (approx Rs 6,187) as the monthly battery rental. This means the operating cost of a commercial vehicle has to be calculated differently to the way operating costs are accounted for with traditional vehicles.

TECHNICAL DATA

PRICE	approx Rs 17,18,783
ADDITIONAL BATTERY	approx Rs 6187/ month*
BATTERY CAPACITY	15 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	170 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	6-8 hours/ ½ hour (80 %)
ELECTRIC DRIVE POWER	44 kW/60 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	4.2 x 1.8 x 1.8
WEIGHT WITH BATTERIES	1,483 kg**
NUMBER OF SEATS	2
BATTERY WARRANTY	Depends on the individual battery model

*Rated for 36 months **calculated including 75kg driver's weight





FISKER KARMA ECOSTANDARD

Four-seat racer with petrol backup

Like the Opel Ampera, the Fisker Karma is an electric car with a range extender. If the maximum electric range of 80 kilometers is exceeded, the range extender powers up and allows for another 400 kilometers. The car can reach a maximum speed of 153 kmph on electric power exclusively; with the range extender, it can even reach 200 kmph. The smart touch is that the roof of the Karma has solar cells. Solar energy helps the battery to retain its charge for longer. Small-volume manufacturer Fisker still needs to figure out its quality control problems: there already have been incidents which required products to be recalled to the factory.

TECHNICAL DATA

PRICE	approx Rs 73,51,772
ADDITIONAL BATTERY	–
BATTERY CAPACITY	20 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	80 km
ADDITIONAL RANGE	403 km
CHARGE TIME (230 V)	6 hours
ELECTRIC DRIVE POWER	2 x 150 kW/403 PS
COMBUSTION ENGINE POWER	190 kW/260 PS
DIMENSIONS (LxWxH)	5.0 x 2.0 x 1.3 m
WEIGHT WITH BATTERIES	2,200 kg*
NUMBER OF SEATS	4
BATTERY WARRANTY	4 years/100,000 km

* calculated including 75kg driver's weight





TAZZARI ZERO

An unsafe and expensive minicar

For three years, this Italian industrial enterprise has been manufacturing a single ecar, the Tazzari Zero. The chunky pipsqueak is a two-seater and looks like a car out of a comic strip. It is available in three versions with different accessories. The battery of the car needs to be charged for 9 hours with a 220-volt power point for it to be able to reach a range of 140 km at a maximum speed of 100 kmph. Even though Zero is costlier than the Smart, it lacks the basic safety features: it does not have airbags or ABS. Additionally, it also lacks one of the biggest advantages of electric cars—silence. The Zero is actually very noisy when it gains momentum.

TECHNICAL DATA

PRICE	approx Rs 17,44,565
ADDITIONAL BATTERY	–
BATTERY CAPACITY	12.3 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	140 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	9 hours
ELECTRIC DRIVE POWER	15 kW/20 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	2.9 x 1.6 x 1.4 m
WEIGHT WITH BATTERIES	542 kg
NUMBER OF SEATS	2
BATTERY WARRANTY	2 years





MITSUBISHI I-MIEV

Pioneer of mass-produced e-cars

Mitsubishi'a i-Miev was the first electric car that was mass-produced. It has two sister models with the same design: the Citroën CZero and Peugeot iOn. However, the production of the latter was discontinued in August 2012, whereas production of the i-Miev continues. The minicar has a maximum speed of 130 kmph and can reach up to 150 km with a fully charged battery. The battery can be charged in 8 hours with a 230 volt power point; it takes only half an hour to charge up to 80 percent at a ChadeMo boost charging station (which provides 300 to 600 volts). Similar to its sister models, the i-MiEV costs just under 30,000 Euros (approx Rs 21,15,981).

TECHNICAL DATA

PRICE	approx Rs 21,15,981
ADDITIONAL BATTERY	–
BATTERY CAPACITY	16 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	150 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	8 hours/ ½ hour to 80%
ELECTRIC DRIVE POWER	49 kW/67 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	3.5 x 1.5 x 1.6 m
WEIGHT WITH BATTERIES	1,185 kg*
NUMBER OF SEATS	4
BATTERY WARRANTY	3 years** (100,000 km after the third year)

* Calculated including 75kg driver's weight
** Can be extended at an additional cost





FORD FOCUS ELECTRIC

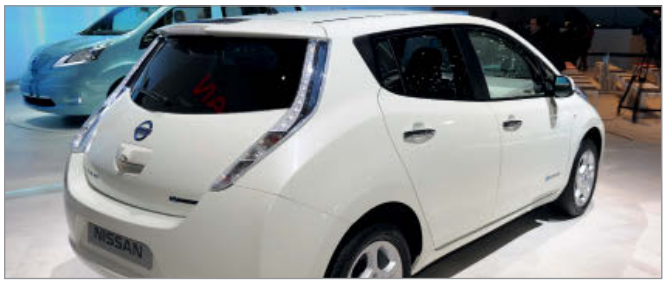
Best-selling car with electric guts

The Focus Electric launched in a few countries outside the US in late 2012. Other than the 107 kilowatt electric engine under the hood, this car is identical to the globally successful Focus. In spite of its high performance, the speed limit is 135 kmph. In any case, the specified 160 kilometer range is possible only at moderate speeds. Ford has specified the charging time at three or four hours without mentioning details about the current source—our calculations show that a 400 volt power point is required. Ford has also not specified an exact price; however, with its 23 kWh Lithium ion batteries, it should cost somewhere around Rs 30,00,000.

TECHNICAL DATA

PRICE	Not available
ADDITIONAL BATTERY	–
BATTERY CAPACITY	23 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	160 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	3-4 hours
ELECTRIC DRIVE POWER	107 kW/143 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	2.6 x 2.1 x 1.5 m
WEIGHT WITH BATTERIES	1,674 kg
NUMBER OF SEATS	5
BATTERY WARRANTY	Unknown







NISSAN LEAF

The five-star safety car

The Nissan Leaf is the first electric vehicle to receive a five-star rating at the European New Car Assessment Programme. The crash test offered 89 percent protection for adults in the front seat. This battery-operated car has been available in Japan and the US since late 2010. The Leaf can be fully charged within 6 to 8 hours using a 230V power point and just about in 30 minutes (80 percent) at a ChadeMo charging station. With a maximum range of 175 km and a maximum speed of 145 km/h, the Leaf is fairly suitable for day-to-day use. Priced at approx Rs 26,72,058, it is still a little too expensive for its obvious use as a family car.

TECHNICAL DATA

PRICE	approx Rs 26,72,058
ADDITIONAL BATTERY	–
BATTERY CAPACITY	24 kWh
BATTERY TYPE	Lithium ion
ELECTRONIC RANGE	175 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	6-8 hours/ ½ hour (80 %)
ELECTRIC DRIVE POWER	80 kW/109 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	4.4 x 1.8 x 1.5 m
WEIGHT WITH BATTERIES	1,642 kg*
NUMBER OF SEATS	5
BATTERY WARRANTY	5 years/100,000 km

*Calculated including driver's weight



RENAULT FLUENCE ZE

An option for short trips

Renault is promoting the Fluence ZE in Europe website as the limousine of the future. The battery-operated medium-sized vehicle has been available since since the beginning of 2012 and has a maximum speed of up to 135 kmph. The vehicle needs to be fully charged for 6 to 8 hours using a 230 volt power point for it to reach its maximum range of 185 km. The price of approx Rs 18,55,997 plus approx Rs 5,921 as a monthly payment for the batteries initially sounds good, but since the payment covers only 10,000 kilometers of mileage per year, there is practically no chance to undercut the operating costs of a comparable diesel or petrol car.

- feedback@chip.in

TECHNICAL DATA

PRICE	approx Rs 18,55,997
ADDITIONAL BATTERY	approx Rs 5,921/ month
BATTERY CAPACITY	22 kWh
BATTERY TYPE	Lithium io
ELECTRONIC RANGE	185 km
ADDITIONAL RANGE	–
CHARGE TIME (230 V)	6-8 hours
ELECTRIC DRIVE POWER	70 kW/95 PS
COMBUSTION ENGINE POWER	–
DIMENSIONS (LxWxH)	4.7 x 1.8 x 1.5 m
WEIGHT WITH BATTERIES	1,605 kg**
NUMBER OF SEATS	5
BATTERY WARRANTY	Depends on the individual battery model

*Runtime from 36 months, mileage 10,000 km/ year
** Calculated including 75kg driver's weight



Web Watch

Here are some interesting websites you might want to visit.

COMPILED BY **PRIYANKA TILVE**



AD MUNCHER

While there are many tools available to get rid of online ads, very few allow you to even block music, flash content or background images. One of the most popular tools for blocking ads and content is **Ad Muncher**. The tool works with Internet Explorer, Chrome, Opera, Safari and Mozilla Firefox.

Ad Muncher also allows you to block links, images, remove music, background images, scroll bars, reloads and more. It will block all sorts of pop-ups and the tool will display a notification in the status bar whenever a new pop-up is blocked. You can view the pop-up and if you find it useful, you can easily unblock it. Ad Muncher contains an extensive blocking list and you can also add your own filters. The tool also lets you replace sections of the webpages you find annoying with custom text. There's also a security mechanism built in that helps protect your privacy by blocking tracking systems, spyware and adware. It effectively blocks ads from any website on the Internet, including social networking sites and the ads that appear in news feeds.

However, Ad Muncher is not free and you will have to shell out approximately Rs 1,090 for the basic version. But keeping in mind the features the tool has to offer, we think it is worthy of the price. Especially considering the fact that it provides for an unparalleled browsing experience that lets you have total control. If you do not wish to spend money, there are some free tools you can try, like AdBlock Plus. But this particular tool will only block ads.



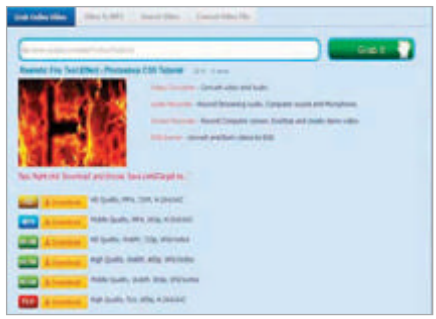
PRICEDEKHO

Price comparison sites can come in handy when browsing multiple sites, and one of the more useful ones out there is **Pricedekho**. This site vows to make your shopping experience a whole lot easier. The site lets you compare prices for mobile phones, cameras, MP3 players, electronic gadgets, cars, clothing, home appliances, jewellery, books and a whole lot more.

To compare prices, just key in the details of the product you are looking for and Pricedekho will throw up results from sites like SnapDeal, Infibeam, Croma, HomeShop18, Buytheprice.com, Indiaplaza.in, Bitfang.com, Gadgetsguru.com, themobilestore.in and more. Alternatively, you can browse products based on your budget, popularity, brand, features, and other parameters.

Along with the price, you will find other information like specifications, photos, videos and reviews of the product. At the bottom of the page, you will find a summary showing you which site offers the maximum discount, as well as when the price was last updated. Usually, the prices are updated daily, but it's always a good idea to check the same.

The site also lets you compare two or more gadgets. Another useful feature is the Price Alert notification. If you are keen on buying a particular gadget, but want to wait till the price drops a bit, then this is a good feature for you. You can set your target price, provide your email address and whenever the product is available at your desired price, you will receive an alert.



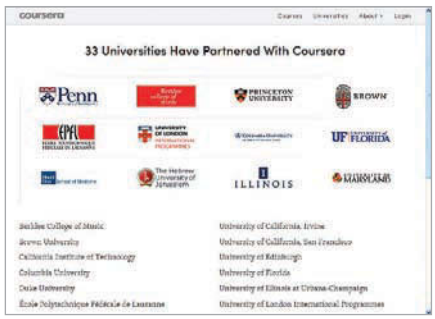
VIDEO GRABBER

The Internet is home to millions of videos but most sites don't let you download them. However, there are several tools that will help you download videos to your PC.

One such online tool is **VideoGrabber.** This utility allows you to download videos from several sites including YouTube, Vimeo, Dailymotion, Metacafe, myspaceTV, theonion, Nationalgeograhic, blip.tv and break. VideoGrabber, which its developer claims, supports over thousand video sites, also provides options to download videos even from some of the more not-so-popular sites. In case there is a site you want to download videos from, you can just write to the VideoGrabber team, who promise to try and provide support for the requested site.

VideoGrabber enables you to download both SD and HD videos. When you paste a link in the browser, it will grab the video for you and display the various formats the video can be downloaded in, and you can choose which format you want the video to be saved in. Formats supported include MP4, WebM, FLV and MP3. VideoGrabber also has a video conversion tool and lets you record audio or create a demo video by opting for screen recorder. You can even burn videos on DVD. However, keep in mind that downloading copyrighted videos can have legal implications and may land you in trouble. Also, there is a risk of exposing your system to malware, spyware and adware by using such tools, so use them at your own discretion.

SMS us! > Story code: FWW to 51818



COURSERA

Staying abreast of new developments in your field can be quite a task, but online education sites can come to your rescue. Such sites offer certificates and diplomas in various subjects at little or no cost, and one of the best options is **Coursera**. It has tie-ups with leading universities across the globe and provides access to the universities' courses. Universities affiliated with Coursera include Stanford, Princeton, Columbia, University of Pennsylvania, Brown University, University of London, University of Melbourne and more. Indian Institute of Technology Delhi and the Indraprastha Institute of Information Technology, Delhi are also on Coursera.

You can browse the site by course or university to find out which subjects are being offered and the requirements for the same. Clicking on a course will give you information on the commencement date, of the university, the course instructor, the topics covered, the duration, suggested reading and even workload. You can enroll for a course by paying a fee, and after completing a course, you'll be issued a certificate from the university.

The courses offered include Humanities, Computer Science, Mathematics, Networks & Information, Business, Finance, and more. Under Computer Science, you will find courses on Software Programming and Engineering, Artificial Intelligence, Robotics and Networking, amongst others. The courses include study material and video lectures with assignments that have to be submitted.



COPYRIGHT AND LACK OF OPEN ACCESS ARE CREATING CASH COWS FOR CORPORATIONS

ROHINI LAKSHANE
FEATURES WRITER

THE COST OF OPEN ACCESS

Aaron Swartz, the co-founder of Reddit and an Internet activist charged with felony for downloading around five million academic journal articles from Jstor, committed suicide in January. But quite a ways from Swartz is Shyam Singh, the owner of a photocopying shop licensed by the Delhi School of Economics. Six publishing companies have levelled charges of copyright infringement against Singh for photocopying academic material that would otherwise have been out of students' financial reach. These incidents are a part of a larger narrative that shows the need to democratise information so that it benefits its creators and consumers and not just large corporations.

Swartz attempted to liberate academic research carried out in universities and public institutions. Most academic research is heavily supported by public infrastructure, but it benefits only a privileged few—publishing corporations that own the copyrights and those who can shell out the money. Proponents of open access believe that resources generated from activities funded by public money should be public property. All digital content is in the form of copies. If I give you a book, we would have one copy between us. If I give you an e-book, we would have a copy each. One of the charges pressed against Swartz was that of stealing, but Jstor did not lose any property. Swartz downloaded copies. This difference between the physical and virtual world has been pushing the boundaries of copyright. Digitised information is increasingly being locked up behind paywalls that make access to it frightfully expensive or prohibitively restrictive. Technology, as an enabler of open access, seeks to turn academic knowledge into a public resource.

When academic and creative works crossed over from print to bytes, copyright laws governing them did not undergo a corresponding transition. The boundaries of ownership and rights to such content are terribly gauche and access is restricted by arbitrary or badly defined rules.

It is ironic and unfortunate that some countries which support freedom of information also support policies that aid the privatisation of knowledge. They also prohibitively stash away works that are created with public money and effort. A case in point is the data from the 2011 Indian Census, which was copyrighted by the government. Freeing the data would open endless possibilities for use in research and public good. An online tribute to honour Swartz, #pdftribute on Twitter, has gathered over 1,500 links to academic and research papers released from copyright. If the repository grows, it will be a fine monument as much to Swartz as to the concept of open access. It would ensure the cliques and cabals, which currently have a stranglehold over information, do not turn its liberators into "felons."

- feedback@chip.in



Sachin Pandit

Dr CHIP

SEND YOUR QUERIES TO: drchip@chip.in

[Q] My PC has a 250GB WD HDD with 2GB RAM, an Intel Core2duo processor and runs Windows 7 Ultimate. I recently bought a 1TB WD Green HDD and after connecting it and formatting it, I downloaded and installed Windows 8 (from official site). It installed successfully on the 250GB HDD. However it hangs randomly and displays the BSOD with the message: DRIVER_POWER_STATE_FAILURE.

I took this to mean that the hard drives were not getting enough power. So I put Windows 8 on the 1TB HDD and removed the 250GB HDD altogether. Now it doesn't hang, but when I turn on the computer, it shows the Windows logo for about 2 seconds and the monitor goes blank, but the CPU keeps running. When I press the reset button, it restarts and then Windows 8 boots normally, but slowly. Could you tell me why this is happening? Is it because of Windows 8 or the new hard drive?

- Raghu Saxena

[A] Hello, Raghu. Your system may be behaving erratically due to driver issues. The error "DRIVER_POWER_STATE_FAILURE" is usually caused by a driver issue with one of the devices installed in your computer. This error is generated when a driver does not work when Windows changes between power modes. For example going into or coming out of hibernation or Standby. If you've recently installed a new hardware device such as a printer, modem, video card, etc., make sure you've got the latest drivers from the manufacturer's website. Make sure your PC hardware is compatible with Windows 8 and you have all the necessary drivers for the new operating system. You could also try disconnecting unwanted hardware peripherals from the CPU or USB ports to find which hardware is causing the problem. Lastly, a motherboard BIOS update could also help.



This error is generated when a driver does not work when Windows changes power modes.

[Q] My PC has Windows 7 Professional installed. I have installed and uninstalled many programs through the Add/Remove programs tool. However folders pertaining to uninstalled programs are still occupying space on the C:\ drive. Please suggest the correct procedure to regain this space.

- Haribabuprasad Damarla

[A] In certain cases, programs store user data, which resides in the installed folder even after they're uninstalled. If you don't need the data, you can delete the folders of the uninstalled programs manually. You can also use applications such as CCleaner to scan your hard drive for redundant files and reclaim space.

[Q] I am in big trouble. I accidently formatted one of my partitions and 40GB of my data has been deleted. I need to get the data back. Can you suggest a good recovery software that I can use?

- SP Vishva

[A] First things first, leave the formatted partition untouched. If you have copied new data to the partition, it won't be possible to recover data from the overwritten sectors. You can use freeware like Recuva and Undelete Plus to scan the partition and recover lost data. Stellar



Stellar Phoenix is one of the best data recovery programs available.

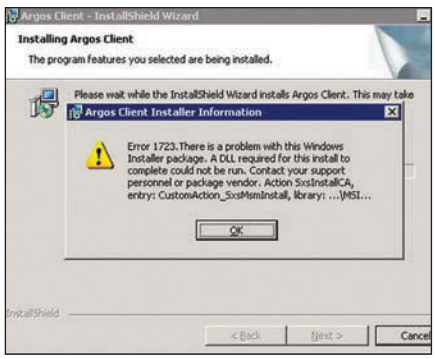
SMS us! > Story code: HDC to 51818

Phoenix for Windows would be a better option, but you'll have to purchase the license for the full version.

[Q] Of late, whenever I try to install a software, my system gives me an error message: "Error 1723. There is a problem with the Windows Installer Package, a DLL file is required." It also mentions that I should contact Support Personnel or the Package Vendor. I've been facing this issue with quite a few software. I tried to solve it by restoring my system to an earlier restore point but to no avail. Can you please tell me the reason behind this problem and a possible solution? I don't want to format my laptop.

- Ankit Lal

[A] Hi, Ankit. Windows Installer displays the error 1723 when there's something wrong with it. To fix the error, first unregister and then re-register the Windows Installer—open the Run dialogue (Win key+R) and type the



Error 1723 means the Windows Installer is faulty. Luckily, this can be rectified easily.

command 'msiexec /unreg' and 'msiexec /regserver'. Next, use CCleaner to fix the redundant registry entries. You should now download a fresh installation of Windows Installer from Microsoft's website and install it.

This should resolve your problem without having to re-install Windows.

[Q] I would like to make my home fully wireless for internet and hard disk storage access. I have desktop, a TV with Wi-Fi, a mobile and a laptop. I want to get a high speed broadband Internet connection with a modem through which I can establish a wireless connection between my devices. Can you please suggest a good Wi-Fi modem and how to set up the connections?

- Akshay Sawai

[A] Hi, Akshay. All you need is a Wi-Fi router. Buy a basic 802.11 n broadband or ADSL router (depending on your requirement) that costs less than Rs 2,500. Configure the router and hook up all the Wi-Fi enabled devices to it to be able to interconnect them.



You need a basic broadband/ADSL router to interconnect Wi-Fi enabled devices.

[Q] I have a Vaio VPCEH28FN laptop and have been having some trouble with the DVD writer. It is not able to read any DVDs. I am using the DVD writer that I got with my laptop. Can you please tell me what the problem could be and how I should get it rectified?

- Akshat Jain

[A] Hi, Akshat. It seems there's a problem with the laptop's DVD writer. Get it inspected and replaced if your laptop is still under warranty. Else it will cost you a few thousand rupees.

[Q] I'd like to get started with PC gaming and wanted to know just what kind of power I'd need. Firstly, will all games run on an AMD CPU? Can you please tell me whether a Digilite DL-A88GMV motherboard, an AMD Sempron 145 CPU, a Sapphire Radeon HD 6450 GPU, 4GB of Transcend RAM and a Seagate Barracuda 7200.14 500GB HDD would be good enough for entry-level gaming?

- Utkarsh Maurya

[A] Hi Utkarsh. The configuration you've mentioned is fine except for the processor and the graphics card. Get at least an Athlon II X2 or a Phenom II X2 processor for better performance. But more importantly, get a better graphics card to be able to play the latest games at low resolutions—a Radeon HD 6670 or



The Radeon HD 6670 is a good low-cost option for casual gaming.

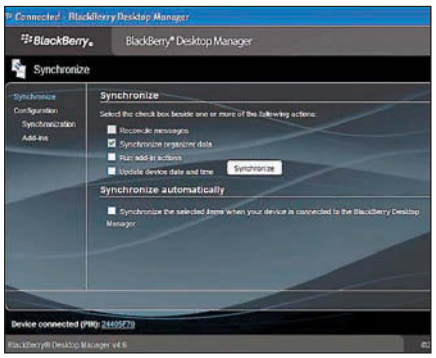
GeForce GT 640 should be fine for casual gaming.

[Q] I have a query regarding transfer of contacts from one phone to another. I recently bought a BlackBerry Bold 9900 and I was wondering how I could transfer/copy roughly 3,000 contacts from my LG Optimus 1 to this new handset without using PC suite?

- Dishant Sharma

[A] Hello Dishant. Transferring contacts from one mobile platform to another is definitely a pain. Though there are easier

ways to do so, they still need few extra steps. In order to transfer your contacts from the Android to the BB smartphone, you will need to sync your contacts with Outlook first. If your contacts are



Use the BB desktop manager utility to sync contacts from Outlook.

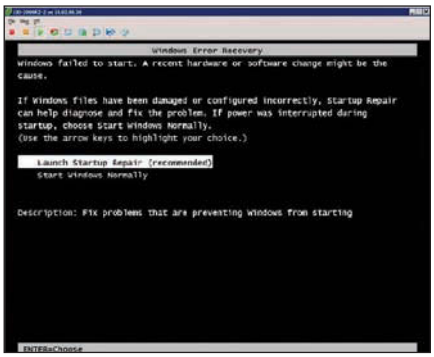
already synced online with your Google account, then you can simply go to your Gmail account on the Internet, head to the contacts tab and export the entire contact database to a Comma Separated Value (CSV) file. Save this file to your PC and import it to Outlook. Once done, start the BB PC utility and sync it with Outlook for the contacts. If you want to do this without the BB utility, you can import the same CSV file into your BB account online, which will sync all the contacts to the BB phone when you connect it to the Internet.

[Q] I own a Sony VAIO VPCEB34EN laptop running Windows 7 Home Basic with an Intel Core i3 370M CPU @ 2.40GHz and a 320GB HDD, with 512MB of RAM. About two months ago I was watching a movie on my laptop when it suddenly shut down. When I restarted the system, it showed me an error: "Windows failed to start. A recent hardware or software change might be the cause." It gave me two options "Launch Startup repair" and "Start Windows Normally" recommending the former option as the course of action.

When I chose the first option, a blue screen appeared and nothing happened. I thought my laptop was getting repaired but it stayed that way for over five hours. Can you tell me what could possibly be wrong?

- Akash Ingole

[A] Hello, Akash. It seems that your laptop was either attacked by a virus, had a drive or device failure or some system file somehow was corrupted. You will have to check for the problem at different stages. If your laptop is working now, download and install a good antivirus program and check your PC for viruses. You should also scan your hard drive



A crashing operating system could mean a hardware or software issue or a virus attack.

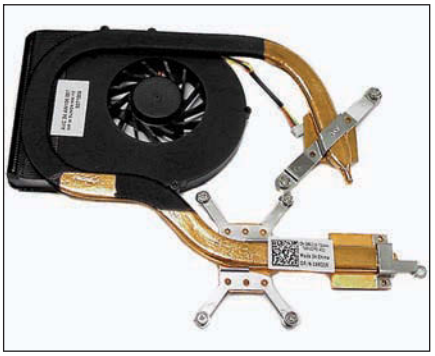
for errors and bad sectors. Check if your laptop is overheating above the normal temperature, and if your laptop has dusty vents, clean them. You should make sure you have updated all the drivers and software installed on the system.

Pirated software and operating systems can cause irregular behaviour and crashes. They can also cause data loss, so avoid using pirated software. If your laptop is not working properly, try to take a data backup using a live CD utility such as Ubuntu or Knoppix. Once your data is safe, use the recovery option to set your laptop back to factory defaults. If the issue persists after you reset the laptop, you would have to get the laptop inspected for hardware issues from the service center.

[Q] I own an Acer Aspire 4736 laptop and would like to get it upgraded. Please tell me to what extent I can do so and what would an upgrade cost? I also seem to be having an issue with my cooler and CD Drive; can I replace them?

- Deepak Sanasam

[A] Hi Deepak. With regards to performance, you can upgrade the laptop's RAM and hard drive. As per Acer's support section, your laptop uses DDR3 memory and you can upgrade the memory to up to 8GB (2 x 4GB modules). But you will need to install a 64-bit OS to effectively utilise memory more than 3GB. With regard to the CPU cooler and CD drive, it's better if you approach Acer's service center and ask them to do to the



It is possible to clean the laptop cooler and replace its fan.

needful. Find out if spares for the Aspire 4736 are available and at what cost.

[Q] I am studying in Bangalore and planning to buy a laptop. I'm unable to choose between a regular laptop or an Ultrabook. I would also like to know which would be better: Windows 8 or Windows 7. I mostly use software like MATLAB and MICROCHIP, so I'd like to know which OS and hardware would be best suited for this? I do need the laptop to have a DVD drive.

- Sampath Kumar

[A] Hi Sampath. Windows 7 should do fine for your needs. Windows 8 is good if you have a touchscreen tablet, but for a notebook, it doesn't make much sense. Plus, programs run better on Windows 7 than they do on Windows 8. There aren't many Ultrabooks that offer an optical drive, but luckily, we do have an Asus S56CA-XX056R Ultrabook for about Rs 47,000. This model has good specifications and also comes with a DVD drive.

[Q] I am using the Karbonn A1+ and I have tried rooting it with every possible technique but have always failed. It's currently running on Android 2.3.6 with Baseband - SC6820 and Kernel - Android_2.6.35.7. Can you suggest some way to upgrade my phone to ICS at the very least? Is it even possible for this device to be rooted?

- Kunaal Ahuja

[A] Hello Kunaal. You can root your phone using a simple app called "Z4root. Download the file from the XDA forums (http://forum.xda-developers.com/showthread.php?t=833953) and save it on your phone's SD card. Install it using any file browser and run the application. Your phone will be rooted. For installing



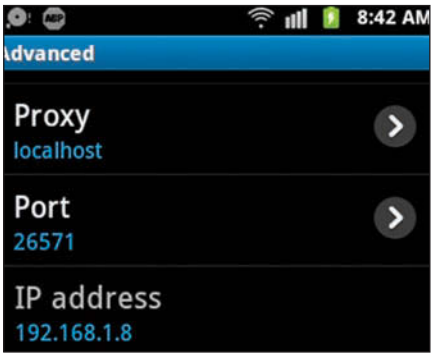
Root the Karbonn A1+ using a third-party app called Z4Root.

ROMs for your Karbonn A1+, try searching on the XDA forums. Since Karbonn is not a very popular phone and is probably not known globally, it's possible you won't find many third-party ROMs for it. However, you can research the phone's components and find drivers and source code for the Kernel and ROM if you look hard enough.

[Q] I have a problem configuring Wi-Fi on my Sony Xperia U ST25i. It runs Android 2.3.7 and I want to set the proxy and port numbers for connecting to the Wi-Fi router in my college, but I do not seem to have the option for doing so on the handset. When I open 'Advanced settings' I see no such options (proxy and port number), whereas other phones from HTC and Samsung let you configure these parameters. Is there an update or app I can use?

- Suraj Utture

[A] Hello Suraj. The original firmware by Sony Ericsson does not feature proxy settings and hence you will not find them on your phone. In order to get your phone to use a proxy server, you will need to root your phone and install a third-party ROM that features proxy server settings. Check the XDA forums for some good ROMs for your phone. I suggest you update your phone to ICS or JB.



Android usually lets you configure the Wi-Fi proxy server under 'Advanced options'.

[Q] I have a couple of requirements for my PC. Can you recommend a good graphics card between Rs 8000 - Rs 10,000? This is my config: AMD FX 4100 quad-core @3.60GHz CPU, ASUS A5A88-M EVO motherboard, 4GB RAM. Should I go with NVIDIA or ATI? And I'm also looking for a good monitor. Is the Dell ST2220M any good?

- Haripreeth G

[A] Hi Haripreeth. The best card in your budget is the AMD HD 7770. It offers good performance and will be able to handle most new games at Full HD. As for your second question, the Dell ST2220M is a good monitor for its price.

[Q] I have a computer with the following specifications: Intel dual-core 3.0GHz CPU, Intel LGA 775 socket G45, 2GB RAM. I also have a laptop with the following specification: Intel Celeron @ 1.6GHz and 1.5GB RAM. Can you tell me what games can be run without a graphics card on these specs? My earlier card, an ATI Radeon HD 5650 burned out after two hours of playing GTA IV on full graphics. It didn't come with a cooling fan. Is this normal?

- Kumar Harsh Taz

[A] Hi Kumar. Unfortunately, you won't be able to play many games on either of your machines because not only do you not have a dedicated GPU, the onboard GPUs are very old and won't be able to handle any of the newer or even some older games. If you're serious about gaming then I recommend you upgrade your PC and add a new GPU. As for your second query, if the GPU does not get adequate cooling and you stress it too much then there is a chance it will burn out. It also depends on the manufacturer of the graphics card as smaller OEMs tend to compromise on quality components for lower prices.

[Q] I have a couple of queries:

- **iTunes never connects to the Internet. Can you tell me what the issue could be and how I can fix it?**
- **My PC constantly reminds me to change the hard disk. Is this normal? What should be my next step?**

- Rohit KB

[A] Hi Rohit. If you are connecting your PC to the Internet via a proxy server, make sure Internet Explorer is set up to use the proxy service. iTunes uses Internet Explorer's settings to connect to the Internet and you have to make sure these settings are correct. Make sure you also have Administrator privileges for setting up the same. You can also check if you are behind a firewall that may be blocking the Internet. Lastly, check if you have permission to use the Internet for iTunes (if your PC is set up in office or school). If all else fails, try running this command from the command prompt: "netsh winsock reset." Restart the PC after the command has been executed, but if you get a prompt to restart Windows to remap the LSP, click "No." As for Windows asking you to replace the hard drive, it seems that your drive is failing. Download and run some hard drive testing utilities such as TestDisk, Hitachi Drive Fitness Test, Seagate Seatools or HDD Health.

- Send your queries to drchip@chip.in



Give Your Photos a Tilt-Shift Effect

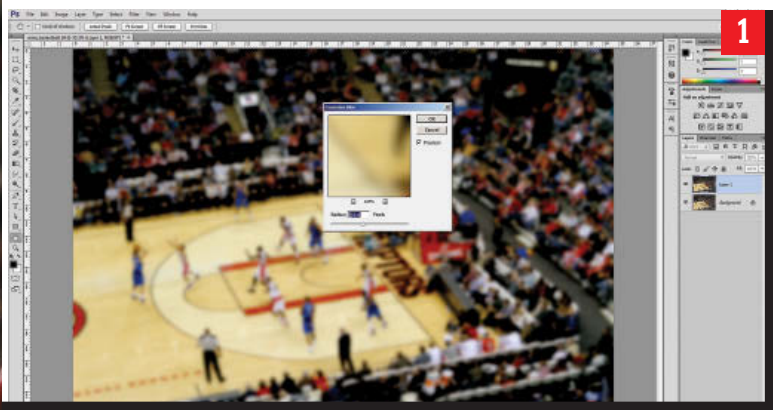
Add a fascinating perspective to your photographs in just 15 minutes. BY **LUDWIG GROSS**

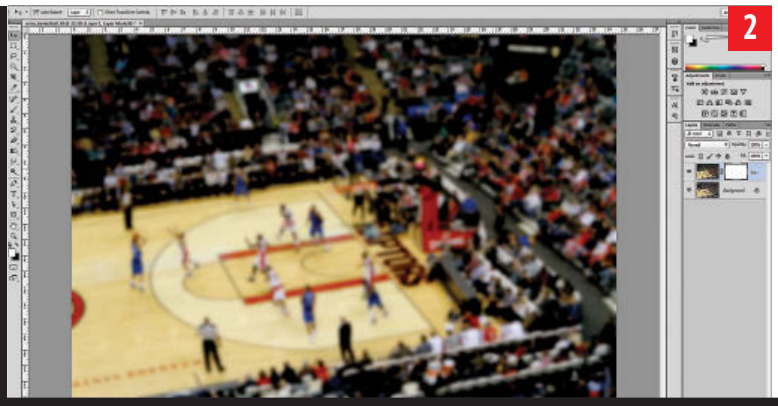
The 'shrink' effect has been used in popular photography, advertisements and commercial art for a long time. People and objects look like miniature models in an artificial landscape, lending an unreal touch to otherwise ordinary subjects. But what sort of technology allows a scene to be shrunk like this, and which tools can you use to create such a photograph when your camera does not have a "Tilt-shift" mode? Well, there are two different approaches one can adopt.

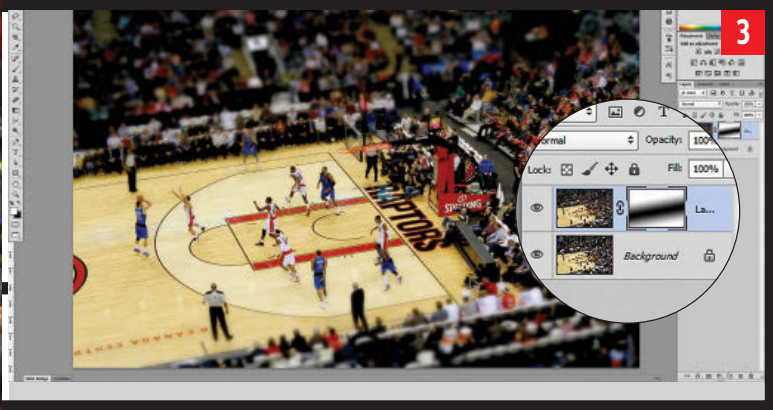
Professionals use a tilt-shift lens, which creates the desired effect by shifting the path of light as it hits the image sensor. Such lenses cost a lot of money and can only be used for that one purpose. There are also more affordable products by Lensbaby, called "optics". Both of these swing or bend your lens away from the optical axis of your camera, thus giving the image a completely different perspective. In addition to the shrinking effect, other effects can also be created.

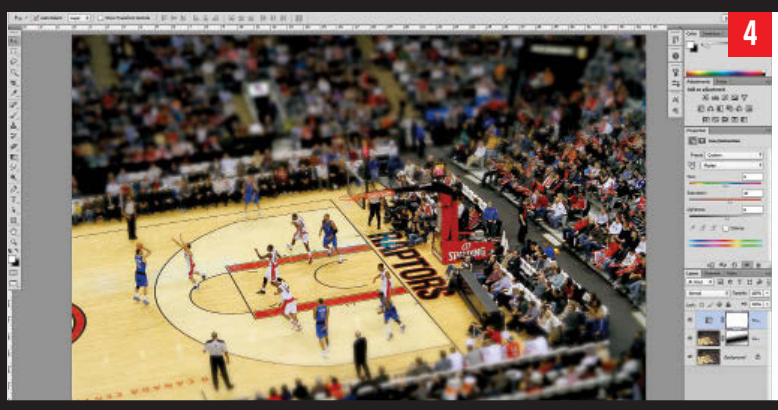
However the easiest and cheapest way to lend this effect to images is to simulate it using a computer and a good imaging software. The only requirement for this is that the image has be taken from a slightly elevated position. Using this technique, dull, everyday shots can be jazzed up in an interesting manner without taking the focus away from the original subject. To do this, you do not require anything except a computer, Adobe Photoshop and about 15 minutes of your time.

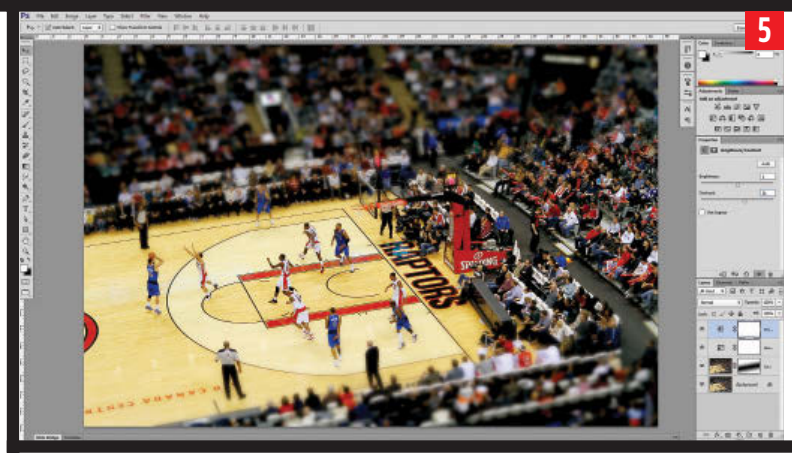
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HOW TO DO IT

1 DUPLICATE AND BLUR THE LAYER We selected a basketball photo for this demonstration. The picture was taken at an NBA match between the Toronto Raptors and the Dallas Mavericks. To miniaturise the subjects, use [Ctrl]+[J] and create a copy of the background layer. Then, click 'Filter | Blur | Gaussian blur' to blur the layer. Using the slide control and preview, change the value till the people and large objects begin to lose focus, but stop before they are completely blurred. They should be somewhat recognisable.

2 APPLY A LAYER MASK Now, in the layers palette in the lower part of the sidebar, click on 'Add layer mask'. The duplicated background layer will immediately show a white layer mask in the palette. Since all further editing steps are carried out on the copy of the background layer and not on the actual layer, the changes can be completely reversed at any given time.

3 APPLY A GRADIENT Select the 'Gradient tool' using the shortcut [G] or by clicking its icon. Set the type as 'Reflected gradient' using the toolbar at the top of the screen and set the foreground colour to black. Click on the picture and drag the mouse in a straight line. The gradient will be applied in the opposite direction. You can undo the action using [Ctrl]+[Z]. Repeat the step until you are satisfied with the result.

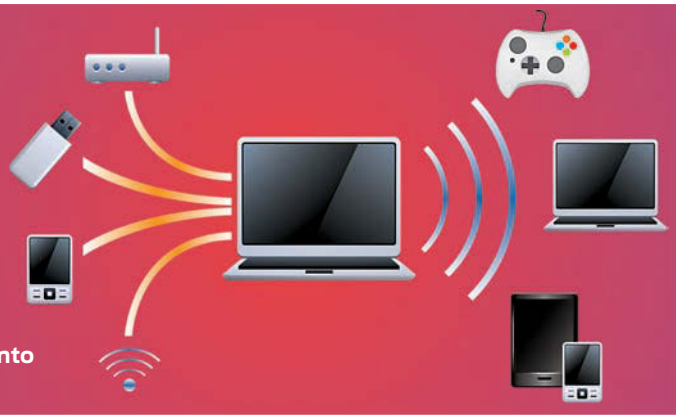
4 ADJUST THE SATURATION In most cases, pictures with a tilt-shift effect look very artificial. It is therefore recommended that you exaggerate it. Click on 'Create new fill or adjustment layer' in the layers palette and select 'Hue/Saturation' from the window or sidebar palette that opens. In our picture, we increased the 'Saturation' to '+14' and the 'Brightness' to a value of '+6'.

5 ADJUST THE BRIGHTNESS AND CONTRAST Create another adjustment layer, but to increase the contrast this time. Click once more in the lower part of the layers palette on the 'Create new adjustment layer' icon and select 'Brightness/Contrast'. To make sure the players on the floor stand out, we increased the 'Contrast' to '+21' and the 'Brightness' to '+1'.

TIP Many new compact cameras, mainly in the low to mid-end segments, frequently offer a 'Miniature effect' option in their custom scene presets. The advantage of having this option on a camera is that one can see the result directly on the camera's LCD screen and can thus frame a great shot. Some cameras store the unmodified photo along with the one that has the effect applied. Even Instagram and other similar smartphone apps now offer one-click photo effects, using which you can apply the tilt-shift effect to your pictures after taking them. Depending on the quality of your camera and the other effects you apply to an image, the final result can be quite interesting.

- feedback@chip.in

Get the Fastest Internet Connection Ever



Got multiple Internet connections? Here's how to combine them into a superfast broadband line. BY **FRANCIS D'SA**

A blazing fast Internet connection has and will always be a geek's dream and we bet you'd like a good, fast connection too. Almost all those who are connected to the Internet have a broadband connection. Your service provider could be a telecommunications company, your local cable guy or a 4G wireless Internet provider. You might even own 3G USB Internet dongles for connecting to the Internet on the move. Many smartphone users also opt for 3G Internet services and tablets. All these connections can be used on your PCs, laptops and smartphones efficiently.

Linux, it is possible to use all connections by tweaking the kernel, adding some modules and running some scripts that will tell the operating system about the various active Internet connections and balance the network load accordingly. However, this is not possible on Windows and a third-party utility is required.

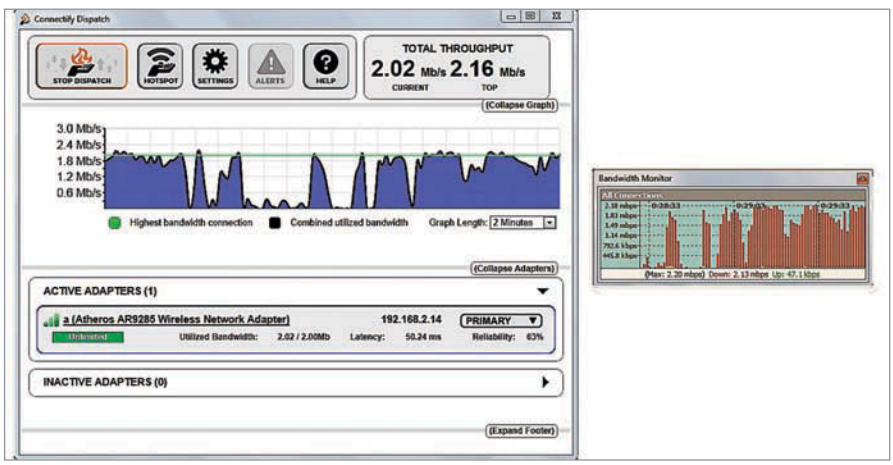
Clubbing all your available Internet connections into a single mammoth pipeline was a hard task until Connectify, a software company which developed Connectify Hotspot, a virtual router for Windows, stepped in. It launched a Kickstarter campaign to help collect funds for the project and achieved its goal. It finally came up with Connectify Dispatch, a utility to connect to multiple Internet connections for greater speed and reliability. Using this utility, you can combine all your available Internet connections—be it from a DSL modem, a wired cable connection, a wireless router, a tethered mobile phone or a USB Internet dongle—into a single mega broadband connection. Read ahead to find out how to do this with just four simple steps.

STEP 1: Download Connectify Dispatch and install it. The software is not free and you will find no demo versions available. The application costs Rs 5,114 for a



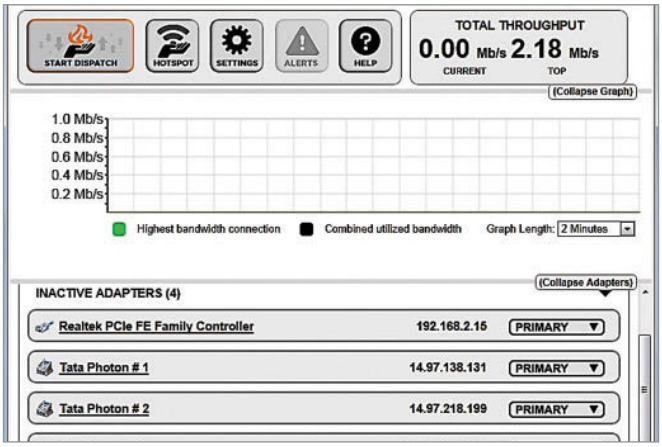
Download, set up and activate the utility.

Though you can connect all your Internet connections to a single PC, the computer will only use the last connected network, leaving the others unused. For instance, if you have four different Internet connection sources A, B, C and D, your PC will access Internet from connection A when it is connected. The moment you initiate a connection from B, the PC will divert all network connections via B, leaving A unused. The same happens when C is initiated; A and B are unused, and this applies to D as well. The operating system is not smart enough and does not know that there are multiple Internet networks available. In



The graph shows you the connection speed.

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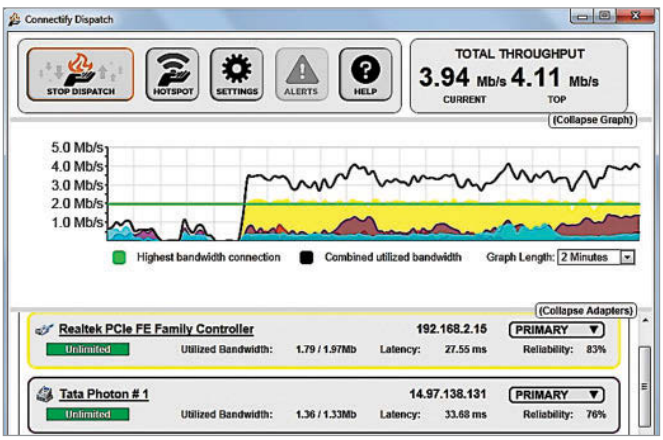
The lower half shows you the adapters active and associated with Dispatch.

lifetime license, which includes the HotSpot Pro utility as a bundle. Optionally, you can opt for a one-year license for Rs 4,023, but we recommend the lifetime offer, which makes more sense. Once installed, you can see it running in the system tray, but it won't be active.

STEP 2: Individually set up and test all your Internet connections on your PC. Install and connect the USB dongles, tethered phone, wireless network, Ethernet cable Internet, or whatever sources you may have. Ensure they are working and are connected to the PC.

STEP 3: Double-click on the Connectify icon in the system tray to pull up the Dispatch user interface. The UI has a graph that shows you the bandwidth of all your available connections, and the overall speed. You will also see the number of active adapters (Internet connections) in the lower half of the screen. Other icons available are Hotspot (to start a Wi-Fi hotspot) and Settings (to tweak a few changes).

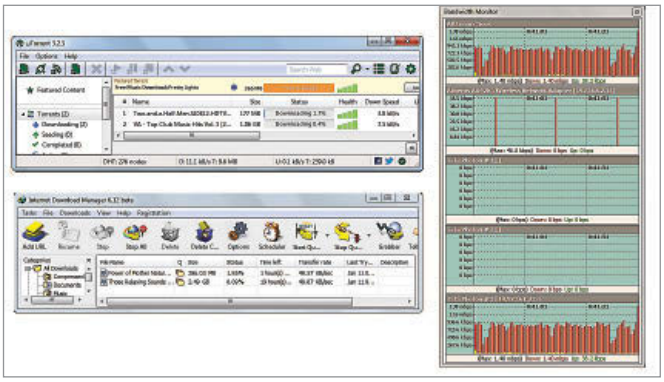
STEP 4: Connect, enable or start all your Internet connections. Once all are active, hit the 'Start Dispatch' button on the Dispatch window and you are ready to cruise the Internet highway on the combined speed and bandwidth of all your Internet connections. The Dispatch utility will automatically combine all the Internet connections together, analyse each one of them and route the Internet traffic accordingly whenever and wherever necessary. You can check the download speeds by downloading a large file, video or torrent. You will definitely notice a difference.



Using only three connections.



System tray notifications show which adapters are activated or deactivated.



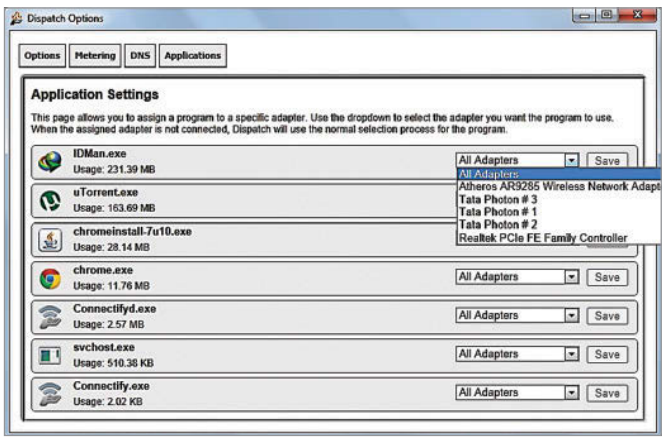
Speed using a single Internet connection.



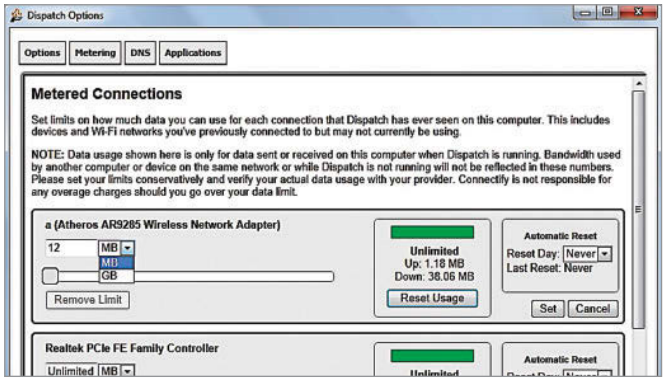
All Internet connections combined as a single fast connection.

How we tested

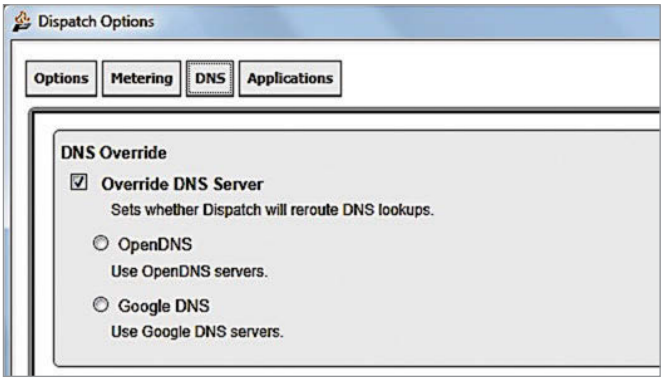
- Internet connection A – Tikona Wireless 4G broadband via Ethernet – Speeds up to 2 Mbps.
- Internet connection B – Tata Photon Plus 3G USB internet dongle – Speeds up to 3.1 Mbps.
- Internet connection C – Tata Photon Plus 3G USB internet dongle – Speeds up to 3.1 Mbps.
- Internet connection D – Tata Photon Plus 3G USB internet dongle – Speeds up to 3.1 Mbps.



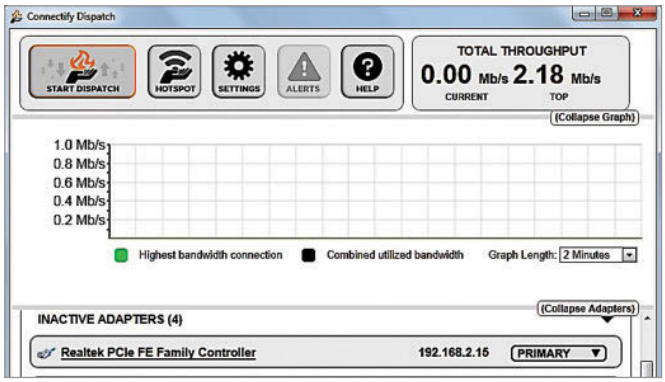
Assign individual applications to select particular Internet connections.



Set bandwidth limitations for each Internet connection.



Override the default DNS.



Select adapters to act as Primary connections or stay as backups.



← Start Hotspot with a combined speed and share it with other devices.



→ An Android phone using Hotspot over Wi-Fi with full combined speed.

We set up the system on a Lenovo laptop and conducted the test inside a house in the Mumbai suburbs. The testing was done at night around 1AM when we could obtain good speeds and minimum interference from any other networks in the surroundings. As we all know, the USB 3G Internet dongles claim maximum speeds of up to 3.1 Mbps, but this varies with the network coverage in the area. In our case, the maximum Internet speed we acquired was between 800 Kbps to 1.5 Mbps at any given time. The Tikona connection was stable at around 2 Mbps. In all, estimating the USB dongles gave us around 1.2 Mbps and the Tikona Wireless gave us around 2 Mbps, the total speed we acquired was a little more than 6 Mbps. After using Connectify Dispatch for a few hours, we can confidently state that the utility works flawlessly and can benefit those looking for higher speeds. BitTorrent is designed to make use of many network sockets simultaneously, which makes it perfect for this.

Other options possible with Dispatch

Connectify Dispatch allows you to tweak it to optimise how your computer uses the various Internet connections. You can set up individual applications to use particular Internet connections to balance the load manually. In this way, for example, you can download multiple files from file-hosting websites such as Hotfile, Rapidshare and Mediafire, which impose IP and time-based limitations. It can also benefit those who want to download particular files faster than others; large files can use a faster connection while smaller files can use the slower connections.

You can also use Dispatch to balance the load. You can set it to keep particular Internet connections as standby or backup connections in case one fails. Other options include the ability to use DNS servers other than the ones provided by the ISP; you can use Google or OpenDNS's DNS servers. You can also meter individual connections to limit the Internet usage so that you don't exceed the download limits. Usage limits can be set according to daily, weekly or monthly rules, or as your Internet connection plan requires. Lastly, you can set Dispatch to draw the bandwidth from the available connections that have the best latency and reliability.

Finally, if you have bought the Dispatch + Hotspot utility together, you can set up a Wi-Fi hotspot and share this combined mega-broadband pipeline to all other computers and devices on the network through a Wi-Fi connection or via a router.

Connectify Dispatch is a very powerful utility that can benefit small and large business environments too. For example, large organisations usually provide most of their employees with a USB Internet dongle for use when they are travelling. But when employees are not travelling, the Internet connection is wasted as they lie unused and the office Internet connection is used at work. By using these dongles on a PC installed with Dispatch, the entire unused bandwidth can be leveraged and the entire office can make use of the faster Internet connection. Other areas where Dispatch can come in very handy is for video chat, online high-definition and 3D video entertainment, distributed or cloud gaming, online backups and data sync servers, remote desktop sharing and a few others. It also makes for a neat trick you can show off.

- francis.dsa@chip.in

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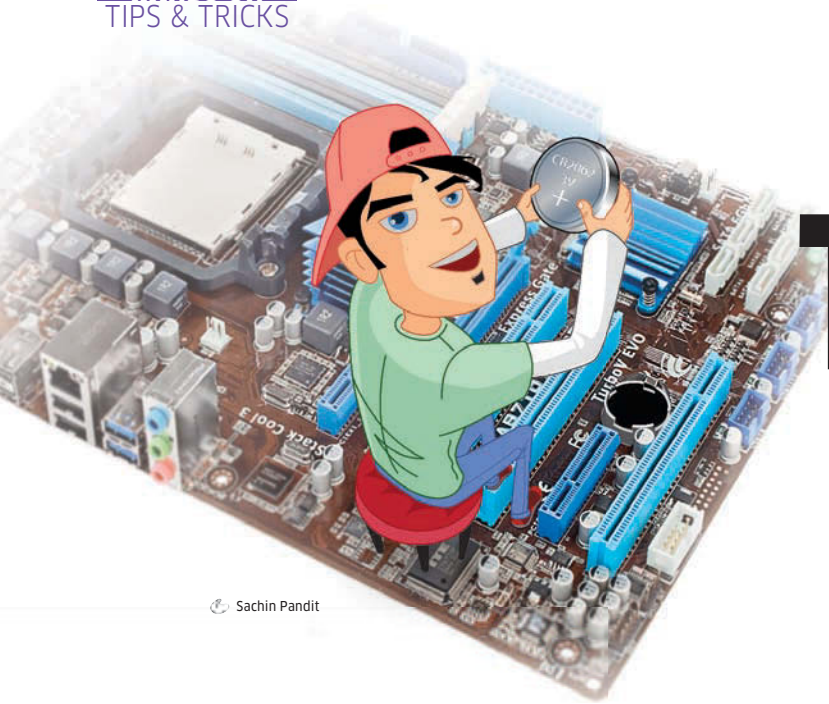
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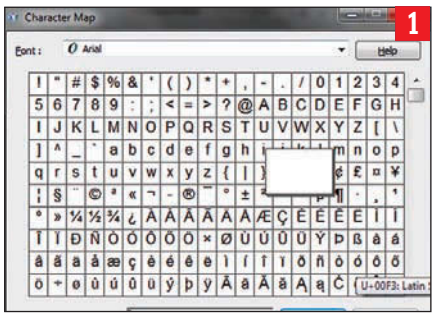
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WINDOWS

1 Windows 7

Create and use invisible desktop folders



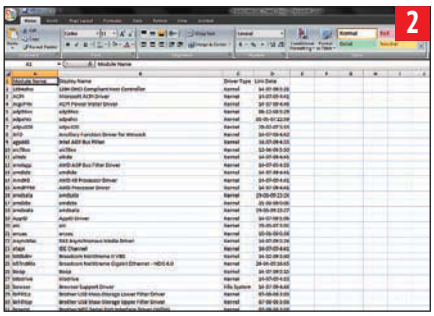
Rename your folder with an invisible character from the Character Map.

CHIP TIP An invisible folder on your desktop would be quite cool, but Windows does not allow you to set such a property for folders. However, a small trick can let you have invisible folders. Go to 'Start | All programs | Accessories | System tools | Character map'. In the list of displayed characters, search for an empty box and select it. You can 'Select' it and 'Copy' it to the clipboard and then close the Character Map. Now right-click on the desktop with your mouse and create a new folder with the option 'New | Folder'. Paste over the name proposed by Windows with the character copied from the Character Map using the [Ctrl]+[V] key combination. This was the first trick: now you have what looks like a nameless folder on your desktop.

To make the icon of the folder disappear, right-click on the now-nameless folder and select the context command 'Properties'. In the following dialogue, click on 'Other icon' in the 'Customize' tab. As before in the Character Map, search and mark a space without content under 'Choose an icon from the following list'. Then confirm your choice with 'OK' and close the 'Properties' dialogue with 'OK' as well. Your folder will have disappeared. To open it, you have to know its position and must double-click on the correct spot on your desktop. Note that the invisible folder will reveal itself when you drag with the mouse to select and cover a large area of the desktop, or when you use the arrow keys to move between icons.

2 Windows XP/Vista/7

List all the installed drivers in a CSV file



The command line tool Driverquery.exe generates a list of all device drivers.

CHIP TIP A list of all drivers installed on the system can be very helpful while troubleshooting. In order to know exactly what's going on with your PC for possible future fixes, you want a list in text CSV (comma-separated values) format, which can be opened by Excel as a table or by any text viewer. Go to 'Start | All programs | Accessories | Command prompt'. The command line tool Driverquery.exe assists you in listing the drivers used. Type the command 'Driverquery.exe -?' to see an overview of the possible parameters.

The parameter '-fo' is particularly interesting since it helps you determine the type of output. When you use '-fo csv', Driverquery.exe generates an output in CSV format. In addition, you can overlay the parameter '-fo' with 'list' or a standard 'table'. You'll have to redirect the information to a file to save it. Supplement the instruction with a '>' as well as the desired file name with the complete path. Such a command would look like this: 'Driverquery.exe -fo csv > C:\Temp\DriverList.csv'.

Excel might not correctly interpret a file generated this way. To fix this, you can load the file in any desired text editor and replace all commas with semi-colons using the search and replace function.

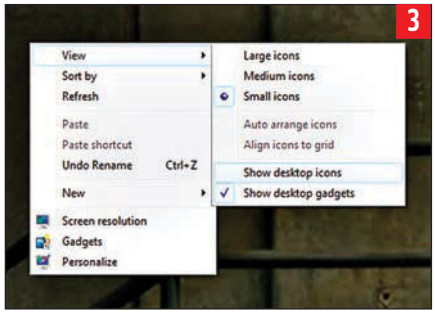
NOTE: While calling Driverquery.exe, use the parameter '-v' to show more information about the drivers. Without '-v', Windows only documents

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'Modulename', 'Displayname', 'Drivertype' and the 'Linkdate'.

3 Windows Vista 7

Temporarily clear icons from the desktop



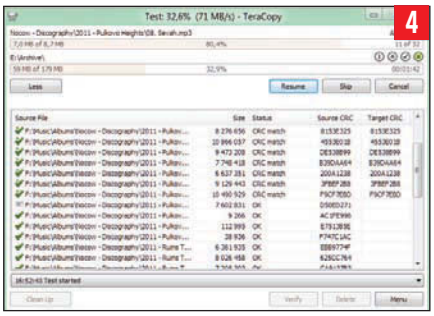
You can make all desktop icons vanish for a short time.

CHIP TIP Sometimes, you may not want to see all the program and file icons on your desktop, for example, when you're taking a screenshot in which your desktop can be seen. If you wish to be able to hide your desktop icons for a short time before taking a screenshot, click on the desktop with the right mouse button and, in the context menu, remove the check mark in front of the item 'View | Display desktop icons'. All the icons will now disappear. As soon as you have taken the required screenshot, you can make the icons visible again by resetting the check mark you removed before. No files or folders will be affected in the process.

4 Windows XP/Vista/7

Copy data quickly and flexibly

CHIP TIP Copying very large files to a network drive can hinder performance. However, with a tool like TeraCopy, you can accomplish such tasks faster thanks to optimised asynchronous copying. Moreover, ongoing processes—as in Windows—can be paused if you need the bandwidth for something else at that time. You can find TeraCopy with a quick Google search. After the installation, the freeware integrates itself into the system and is available in Explorer in the context menu for files and folders. In addition, TeraCopy establishes itself as the default application for copying. You can, however, turn it off. To do this, open the program window, click on 'More' and then open 'Menu Options'. Here, deactivate the setting 'TeraCopy as standard for copying'



TeraCopy accelerates copying of large files and can halt data transfer.

and confirm with 'OK'. After this, Windows' stock copy function will be used and you can use TeraCopy by selecting it from the context menu. For copying, mark the elements as usual in Explorer and then select the context command 'TeraCopy'. Switch the mode between 'Copy' and 'Move' by clicking on the symbol. Using 'Browse', then navigate to the target folder or select 'Last used'. Once you do this the copy/move function will start automatically. Sortable folders are restricted to the paid, pro-version.

5 Windows 8

Optimise app display on the Start screen

CHIP TIP The Start screen of Windows 8 is better than what it is reputed to be—only when it is somewhat customised. To improve the Start screen, ensure that all of your frequently used Apps are accessible without having to scroll horizontally on the Start screen. Remove any unused tiles from the screen by right-clicking on them and selecting 'Remove from the start menu' from the context menu that's displayed as a bar at the lower end. To accommodate more tiles, right-click on the elements you seldom use and select the option 'Smaller' from



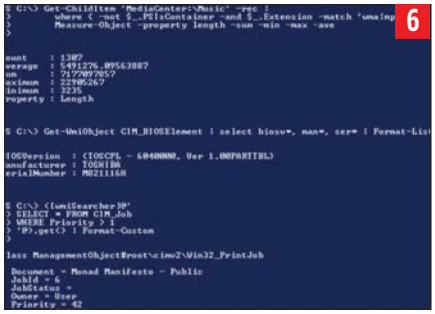
A customised Start screen by Windows 8 can be operated significantly faster.

the context menu bar below. The tile will now be displayed at half its original size. To move an App, click and drag it to its new position. The other Apps will arrange themselves automatically. You should drag frequently used Apps farther to the left and leave only important apps as large tiles. Once this is done, you will have to scroll to the right less often to find a specific App. In addition, the key combination [Ctrl]+[Tab] will lead to a minimised view, which lists all Apps sorted alphabetically, just like in a smartphone. The [Windows] button will lead you back to the start screen. Even the missing search field is not a problem. Start typing in a search term and Windows will automatically open search.

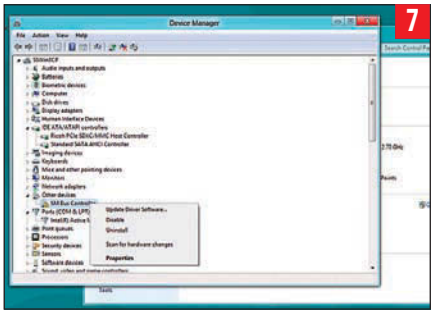
6 Windows Vista/7

Monitor running services easily via PowerShell

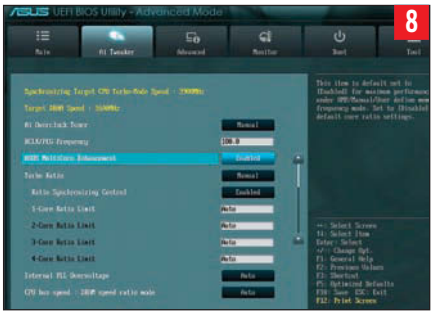
CHIP TIP Your system will often have some unnecessary services running constantly. These services consume memory and may result in poor performance.



Ongoing services on your system can be easily listed, filtered and even exported with PowerShell.



You can identify drivers that are not installed by the exclamation mark icon.



Almost all new laptops and motherboards available today are equipped with the UEFI BIOS.

However, a list of such services can be quite helpful in case you wish to get an informed opinion about what's eating up your system resources. But to do this, you'll have to access the system control and that can get a bit labourious.

But Windows PowerShell lets you generate an overview very quickly with a few linked commands. Start the tool by typing 'powershell' in the search field of the Start menu. The command 'Get-Service' immediately lists all services along with their respective status. You can restrict the services searched for with the parameter '-displayname', followed by the search term with placeholders like 'Google*'. To filter results further and to restrict the list to active services, use 'where {$_.status -eq Running}' separated by a vertical line. Finally, the output of the list can be exported to a text file with the command 'Export-Csv-Path (Insert path here)'. Again, separate this command from the 'Get-Service' one with a vertical line.

HARDWARE

7 PC

Install drivers manually in Windows 8

CHIP TIP Currently, lots of components do not have a functioning driver for Windows 8, so you have to help things along somewhat while migrating to Windows 8. Firstly, make sure that you've updated Windows 8 to the latest version. To know if updates are available, type 'Windows Update' on the Start screen. The search will throw up a short list of options. Initiate the process with 'Search for updates'. However, hardware like printers or scanners can't be used properly with Windows 8 this way. If the device is not automatically recognised, you will have to download the drivers for it. But if the manufacturer does not provide drivers for Windows 8, get hold of a driver for Windows 7 or Windows Vista and try installing that. When installing the driver, select 'Properties' in the context menu of the setup file and in the 'Compatibility' tab, set the compatibility mode to 'Windows 7'. If the setup itself refuses to install on Windows 8, you have one last chance: many Windows Vista and Windows 7 driver packages contain a '.inf' file with which some hardware can function under certain circumstances. Connect this '.inf' file with the hardware by following these steps. First, search for the device in the 'Device manager'. You can identify drivers that have not been properly installed by the warning exclamatory mark in the line. You can see which hardware has not yet been recognised by Windows 8 and is not functioning. Now select 'Update driver software' by right-clicking on the hardware and click 'Search for the driver software in the computer'. Click on the button 'Select from a list of device drivers on the computer' and then on 'More'. Now, select 'Data storage ... Browse', navigate to the '.inf' file in the driver folder and confirm your selection. Your driver may just be installed on Windows 8 and there's a good chance the hardware will work.

8 PC

Make USB drives UEFI-capable

CHIP TIP When you attempt to install Windows from a USB stick on a system with UEFI-BIOS, you will notice that the UEFI mode is not available for selection. That is because the UEFI Bootloader is not to be found on the stick. The setup program needs this bootloader to start the installation in UEFI mode. If you encounter this problem, you can make your stick UEFI-capable with a couple of clicks. First of all, prepare the USB stick for copying the setup files and make it bootable. For this, connect the USB stick to the PC and invoke the command prompt by pressing [Windows]+[R] and entering 'cmd'. Now start the Windows hard drive partitioning tool with the command 'diskpart'. Enter 'list disks' to get a list of all the storage media installed on the system. Memorise the number of your USB stick and then select it with the command 'select disk X'. In place of 'X' enter the data storage number of your USB stick.

The easiest way for you to recognise the USB stick would be by its size. Now enter 'clean' to remove all the existing data and then create a new partition with the command 'create partition primary'. Select the new partition by typing 'select partition 1'. Make the partition bootable with the command 'active'. Now quick format the disk into the FAT32 file system with the command 'format fs=fat32 quick'. Assign a disk letter to the stick with 'assign' and close the command prompt with the command 'exit'.

Now copy the contents of your Windows setup disc onto the USB drive and install the UEFI Bootloader on the USB drive. To do this, browse to '\efi\microsoft\' on the USB stick and copy the folder 'boot' to '\efi'. Now, browse to the 'sources' folder on the setup DVD and open the file 'install.wim' with an archive program like 7-ZIP or WinRAR. Now head to the folder '\1\Windows\Boot\EFI'. Copy the file 'bootmgfw.ef' from the 'install.wim' file to the folder '\efi\boot' on the USB drive. Rename the file to 'bootx64.ef', so that it is recognized by the UEFI-BIOS. That's it. You can now boot from the USB stick and install Windows with UEFI mode enabled.

9 Graphics cards

Boost graphics performance with optimal settings



You use the Nvidia control panel to tweak the graphics card for additional performance.

CHIP TIP You can cajole up to 40 percent more 3D performance from your Nvidia graphics cards without installing additional drivers or dangerous overclocking. Keep in mind that you will be sacrificing image quality for the boost in performance. Changes can be made through the Nvidia system control panel. To open the control panel, right-click on the desktop and click on 'Nvidia system settings'. Now under the section '3D settings', click on the tab 'Program settings' and find your 3D game. Change the settings as follows:

- Anisotropic filtering: 16x
- Antialiasing - transparency: Off
- Triple buffer: Off
- Energy Management mode: select maximum power
- Maximum number of pre-rendered single images: lowest value
- Multi-display acceleration: single-display-power mode
- Texture filtering - anisotropic scan optimization: Off
- Texture filtering - negative LOD bias: Clamp
- Texture filtering - power: quality
- Texture filtering - tri-linear optimization: On
- Texture filtering - anisotropic filter optimization: Off
- Threaded optimization: On
- Vertical synchronization: Automatically off
- PhysX: CPU

Save and close the Nvidia control panel once you're done so that all settings are accepted.

SOCIAL NETWORKING

10 Doodle

Link Outlook's calendar with your Doodle account



Linking your Doodle account with Outlook will help prevent duplication.

CHIP TIP If you are using more than one service to manage your schedule, it's likely your appointments might be duplicated or even overlap. To prevent this, it is prudent to link the two accounts. For instance, if you use Doodle and Outlook, then Doodle lets you link your Doodle account with Google, Outlook and iCal, so you can keep your schedule updated via all of the services. Here's how you can link your Doodle account with Outlook 2007 or 2010.

On the Doodle homepage, you will see the 'Connect with Calendar' option. Clicking on it will show a couple of options. Here, click on the 'Connect with Outlook' option. Before proceeding, you will have to sign up for a Doodle account if you haven't got one. Now, download the file and follow the instructions for the setup. You will have to restart your machine. When you next start Outlook, you will be required to log-in to your Doodle account as well. You will also have to authorise the app to access your Outlook account. You can select the Outlook calendar you want to connect with Doodle. You can even control the amount of information that you wish to share with Doodle. Once the accounts are linked, you can search for a particular appointment directly through the Outlook calendar search option.

11 Facebook

Controlling the number of notifications on Facebook



You can control the number of notifications you receive on Facebook from individuals.

CHIP TIP While Facebook is a great place to connect with friends, constant updates can distract you and leave you exasperated. Luckily, Facebook allows you to control the kind of updates you receive from individuals. You can do so at two levels.

Firstly, you can create lists and classify people in them. For instance, you can create a list of your close friends, acquaintances, office colleagues, relatives, etc. and sort your contacts accordingly. Now click on the option 'More', which is on the right of your homepage, and select the option 'Friends'. You will see all the lists you

have created under this header. From here you can click a list and Facebook will display updates only from the people on that list.

However, you may have a person on the list who habitually posts irrelevant content that may clog your news feed. In such cases, you can choose what kind of updates you wish to receive from a particular individual. To do so, click on the down arrow next to the post. Click on 'Hide'. This action will hide the current post and then it will show you two options 'Change what updates you get...' and 'Organise who you see in News Feed'. With the help of the first option you can control the kind of updates you want to receive: you can either choose 'All Updates', 'Most Updates' or 'Only Important Updates'.

You can also choose the events you want to be notified about, like 'Comments and Likes', 'Gaming activities', 'Photos', etc. Select the things you want to be notified about and only those posts will be visible on your Timeline. The second option is similar to the first method, but with this the choice you make is a permanent one. You can add the person to one of the lists and you will have a lower number of updates from people on that list.

12 FACEBOOK

Add pre-defined events to your Facebook Timeline

CHIP TIP Facebook offers a pre-defined event category which you can use to fill your Timeline with a virtual biography, thus providing your friends and contacts a glimpse into your life. Doing so is easier than it sounds. First go to your profile page, and next to "Status", you will find "Life Event", simply click on it. You will see the pre-defined events like Work & Education, Family & Relationships, Home & Living, Health & Wellbeing and Travel & Experiences. Each of these has several sub-categories. For instance, Health & Wellbeing has options like "Over came an illness", "Quit a habit", "Broken Bone", etc. If you select "Broken bone" then Facebook will also ask you the body part you broke, where you were when you broke it and with whom. There is also an option to tell the story behind the event and upload a picture. Once you have selected the event and filled in the necessary details, click on "Save" and the event will reflect on your Timeline.



Facebook supports you with the pre-defined events for the Timeline.

MOBILE

13 Kindle

Send texts from the Internet to Amazon's Kindle



Simply send articles from the Internet to your reader for later use.

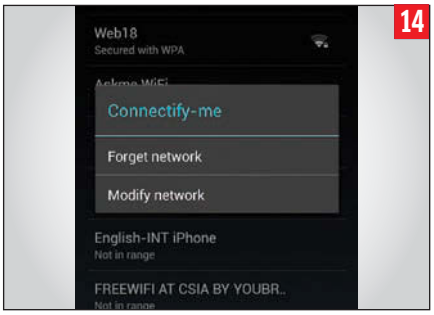
CHIP TIP You can send text messages to a Kindle device from the Internet with the free tool—Send to Kindle. This tool is available for PC, Mac and Android devices. There's also a plug-in for Google Chrome. You can download it from www.amazon.com/gp/sendtokindle. If you want to load the plug-in for Google Chrome—go to the Chrome Webstore, and search for Send to Kindle for Google Chrome. Once you have it installed, log in with your Amazon account. Click on 'Start Now', specify the settings and click 'Save'. You can stay logged-in for as long as you wish. To log out, simply go the Menu option.

After the installation, to the right side near the address field in the browser, you will find a small button with an orange-coloured 'K' on a black background. If you chance upon an Internet page which you find particularly interesting, but don't have the time to go through it, simply click on this button. In the following menu, just select the desired action—Send to Kindle, Preview & Send or Send Selected Text.

NOTE The desktop versions add a command—Send to Kindle in the Windows version, or in case of a Mac, a special printer driver.

14 Android / iOS

Remove public WLANs from the device memory



Remove old credentials to prevent automatic connections to public Wi-Fi networks.

CHIP TIP After a public Wi-Fi network has been used, its access data like SSID and password remain stored in the device. This enables your device to automatically access the network whenever you're in range. This means that there is a danger of you unwittingly logging-in to the same or another unprotected WLAN with the same SSID. This is possible because simple titles or brand names are frequently used for Wi-Fi networks' SSIDs.

But in any case, you must avoid surfing when connected to an unprotected Wi-Fi network to avoid offering hackers an opportunity to attack. For removing such WLAN access data on your iOS device, go to 'Settings | WLAN', and click on the arrow on the right next to the concerned network. Now choose 'Ignore this network'. In Android, open the Settings menu and go to 'Wireless & Networks | Wi-Fi'. Select and hold the concerned network and then select 'Forget network'.

15 Android

Conveniently transfer photos from a smartphone to a PC

CHIP TIP While many manufacturers use their own Cloud solutions, Sony Xperia users have the option of using Box, which comes pre-loaded on most of



Use Box to store your files on the cloud and access them from anywhere.

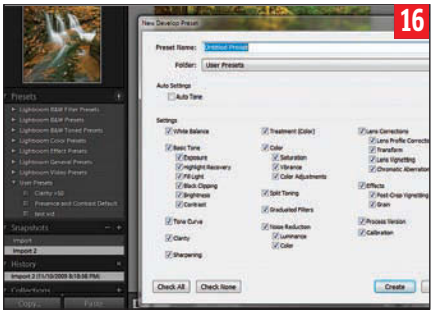
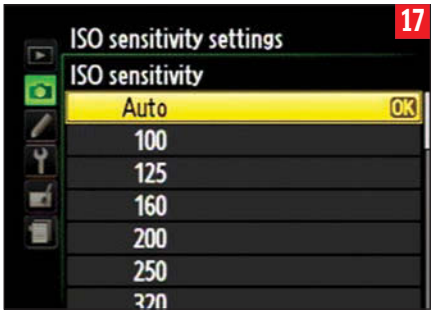


Image correction settings can be copied and applied to all the photos in a batch.



Avoid increasing the ISO speed beyond 800 to keep the noise level low.

the company's new smartphones. It's a simple set up that enables photos to be automatically uploaded to the cloud; you can then easily access your favourite photographs on the PC. Sony Xperia handset owners who still have not subscribed to this web storage service can install the Box software on your PC to begin with. You can even access it online at www.box.com. While registering for the service, choose the free version; Box offers you 5 – 50GB of space for free. New Xperia customers are given as much as 5GB of storage space for free. If you find the storage space to be too low for your needs, you can choose to buy more space too. Look for the Box app on your phone. If it isn't installed, you can download it via the Google Play store. Open the app, sign in, set up your account and you're good to go. You can choose to upload pics manually or via other apps. Box can be used to store and share all kinds of files. The service lets you access all your files from any supported device through the app or a browser, anywhere you might be. All you need to do is connect to the Internet.

NOTE Unlike Apple's Photo Stream service, your photographs will remain permanently stored in Box. You will need to manually remove all your photographs and files later if the available free space gets low.

PHOTOGRAPHY

16 Image Processing

Batch correcting photos with the same errors

CHIP TIP If your camera's automatic mode has led to your photographs being incorrectly exposed, processing all the defective photos may require several hours' worth of effort. However, you can easily correct all your photographs at one go by processing them as a batch. Batch processing is quite simple and is completed in a matter of seconds.

Many batch processing applications, actions and scripts come in handy in such cases. One of the best programs for image optimisation and correction is Adobe Lightroom. This application can fix similar defects in a batch of photos.

To get started, import all the over/underexposed photographs into the Library. You can choose to import only a few photos if you want to try out the software. In case of incorrect exposure, the histogram (at the top right corner) will be skewed towards the right or left—the bright areas may be over-exposed or the dim areas may be underexposed. Such an error can be easily corrected, just like rectifying noisy images. Once done, Lightroom will let you copy and apply the settings to the entire folder/collection.

17 Technique

Shooting shake-free photos without a tripod

CHIP TIP You may not want to carry around a bulky tripod when you're on a family outing or sightseeing. Tripods work out best for capturing long-shutter shots in low light or HDR shots where steady frames are critical, but when you don't have a tripod at hand, you should be willing to compromise a bit on the quality.

You should first try to lower the f-stop to the least possible value, which results in a larger aperture—a large aperture between f/1.4 and f/2.8 with the lens completely zoomed out (widest end) should work out well in dim light environements. If that still results in blurred results, boost the ISO. This increases the sensitivity of the sensor but in turn increases the amount of grain (noise) in the photographs. Very few cameras yield almost noise-free results at ISO speeds of 800 and higher.

Also, keeping your elbows as close to your body while holding the camera with both your hands and breathing out and holding your breath before you press the shutter release helps you keep the camera steady.

– Compiled by Team CHIP

Send your tips to tnt@chip.in

MARKET WATCH



PROCESSORS: Intel

NAME	PRICE (Rs)	CPU SOCKET	NUMBER OF CORES	CLOCK SPEED	MFG PROCESS	TDP
Intel Pentium G630	3,400	LGA 1155	2	2.70 GHz	32 nm	65 W
Intel Pentium G645	3,450	LGA 1155	2	2.90 GHz	32 nm	65 W
Intel Pentium Dual-Core E5700	4,550	LGA 775	2	3.00 GHz	32 nm	65 W
Intel Core i3-540	5,450	LGA 1156	2	3.06 GHz	32 nm	73 W
Intel Core i3-2120	7,000	LGA 1155	2	3.30 GHz	32 nm	65 W
Intel Core i3-3220	7,200	LGA 1155	2	3.30 GHz	22 nm	55 W
Intel Core i5-2310	10,750	LGA 1155	4	2.90 GHz	32 nm	95 W
Intel Core i5-3330	11,100	LGA 1155	4	3.00 GHz	22 nm	77 W
Intel Core i5-3470	11,850	LGA 1155	4	3.20 GHz	22 nm	77 W
Intel Core i5-3450	11,900	LGA 1155	4	3.10 GHz	22 nm	77 W
Intel Core i5-3550	12,650	LGA 1155	4	3.30 GHz	22 nm	77 W
Intel Core i5-3570K	15,000	LGA 1155	4	3.40 GHz	22 nm	77 W
Intel Core i7-3770	18,400	LGA 1155	4	3.40 GHz	22 nm	77 W
Intel Core i7-3820	19,200	LGA 2011	4	3.60 GHz	32 nm	130 W



MOTHERBOARDS: INTEL

NAME	PRICE (RS)	CPU SOCKET	CHIPSET	MEMORY SUPPORT	D-SUB | DVI | HDMI	PCIE X16 | PCI | SATA | USB
Digilite DL-H61M-PS3	3,039	LGA 1155	Intel H61	DDR3	✔ | ✔ | ✔	1 | 1 | 4 | 8
Jetway MIH61M-D	3,111	LGA 1155	Intel H61	DDR3	✔ | ✔ | ✖	1 | 0 | 4 | 8
Biostar H61MHB	3,348	LGA 1155	Intel H61	DDR3	✔ | ✖ | ✖	1 | 2 | 4 | 8
Digilite DL-H61-MXEL	3,348	LGA 1155	Intel H61	DDR3	✔ | ✔ | ✔	1 | 2 | 4 | 10
Digilite DL-B75M	4,532	LGA 1155	Intel B75	DDR3	✔ | ✔ | ✔	1 | 2 | 6 | 10
ASRock B75M	4,644	LGA 1155	Intel B75	DDR3	✔ | ✔ | ✔	2 | 2 | 8 | 10
Gigabyte GA-B75M-D3H	4,651	LGA 1155	Intel B75	DDR3	✔ | ✔ | ✔	2 | 2 | 6 | 12
Gigabyte GA-H77-D3H	6,273	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	2 | 2 | 6 | 14
Asus P8B75-M	6,464	LGA 1155	Intel B75	DDR3	✔ | ✔ | ✔	1 | 2 | 6 | 12
Asus P8B75-V	6,464	LGA 1155	Intel B75	DDR3	✔ | ✔ | ✖	2 | 3 | 6 | 12
Gigabyte GA-P75-D3	6,489	LGA 1155	Intel B75	DDR3	NA	2 | 4 | 5 | 12
ASRock H77 Pro4	6,650	LGA 1155	Intel H77	DDR3	✔ | ✔ | ✔	1 | 0 | 8 |10
Asus P8H77-M LE	7,700	LGA 1155	Intel H77	DDR3	✔ | ✔ | ✔	1 | 1 | 6 | 14
Gigabyte GA-Z77M-D3H	8,652	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	2 | 1 | 4 | 14
Asus P8H77-M	8,781	LGA 1155	Intel H77	DDR3	✔ | ✔ | ✔	2 | 1 | 6 | 14
Asus P8H77-M Pro	9,425	LGA 1155	Intel H77	DDR3	✔ | ✔ | ✔	2 | 0 | 7 | 14
Gigabyte GA-Z77P-D3	9,734	LGA 1155	Intel Z77	DDR3	✖ | ✖ | ✔	2 | 2 | 5 | 12
Asus P8H77-V	9,837	LGA 1155	Intel H77	DDR3	✔ | ✔ | ✔	2 | 3 | 6 | 14
ASRock Z77 Extreme 4	10,867	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	2 | 2 | 8 | 10
Asus P8Z77-M Pro	11,073	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	3 | 0 | 6 | 14
Gigabyte GA-Z77X-UD3H	12,978	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	3 | 1 | 6 | 14
Asus P8Z77-V	14,601	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	2 | 2 | 8 | 16
Intel DX79TO	14,781	Socket 2011	Intel X79	DDR3	NA	2 | 1 | 6 | 16
MSI Z77 MPower	16,450	LGA 1155	Intel X79	DDR3	✖ | ✖ | ✔	3 | 0 | 6 | 16
Asrock Fatal1ty Z77 Professional	17,304	LGA 1155	Intel Z77	DDR3	✖ | ✖ | ✔	3 | 2 | 6 | 18
Gigabyte GA-X79-UD3	17,845	Socket 2011	Intel X79	DDR3	NA	4 | 1 | 10 | 18
Asus Sabertooth Z77	17,922	LGA 1155	Intel Z77	DDR3	✖ | ✖ | ✔	3 | 0 | 8 | 16
Gigabyte GA-Z77X-UD5H	18,386	LGA 1155	Intel Z77	DDR3	✔ | ✔ | ✔	3 | 1 | 9 | 16
Asus P9X79 Pro	20,832	Socket 2011	Intel X79	DDR3	NA	4 | 0 | 8 | 18

NOTE: Street prices (incl. VAT) as on 20 February 2013.

CHIP brings you a roundup of all the latest and greatest products on the market.



PROCESSORS: AMD

NAME	PRICE (Rs)	CPU SOCKET	NUMBER OF CORES	CLOCK SPEED	MFG PROCESS	TDP
AMD Sempron 145	2,292	AM3	1	2.8 GHz	45 nm	45 W
AMD Athlon II X2 260	3,300	AM3	2	3.2 GHz	45 nm	65 W
AMD Athlon II X2 270	3,580	AM3	2	3.4 GHz	45 nm	65 W
AMD A6-3500	4,300	FM1	3	2.1 GHz	32 nm	65 W
AMD Phenom II 560	4,550	AM3	2	3.3 GHz	45 nm	80 W
AMD FX-4100	6,200	AM3+	4	3.6 GHz	32 nm	95 W
AMD FX-6100	7,750	AM3+	6	3.3 GHz	32 nm	95 W
AMD A10-5800K	8,600	Socket FM2	4	3.8 GHz	32 nm	100 W
AMD FX-8120	9,940	AM3+	8	3.1 GHz	32 nm	125 W
AMD FX-8150	11,897	AM3+	8	3.6 GHz	32 nm	125 W
AMD FX-8350	12,535	AM3+	8	4.0 GHz	32 nm	125 W



MOTHERBOARDS: AMD

NAME	PRICE (RS)	CPU SOCKET	CHIPSET	MEMORY SUPPORT	D-SUB | DVI | HDMI	PCIE X16 | PCI | SATA | USB
Jetway N68M	2,369	AM3	Nvidia GeForce 7025	DDR3	✔ | ✖ | ✖	1 | 1 | 4 | 8
Digilite DL-960GM-GS3	2,704	AM3+	AMD 760G + SB710	DDR3	✔ | ✖ | ✖	1 | 2 | 4 | 8
Asus M5A78L-M LE	2,756	AM3+	AMD 760G + SB710	DDR3	✔ | ✔ | ✖	1 | 2 | 6 | 12
Asus M5A78L-M LX	2,756	AM3+	AMD 760G + SB710	DDR3	✔ | ✖ | ✖	1 | 1 | 6 | 10
Gigabyte GA-78LMT-S2	2,833	AM3+	AMD 760G + SB710	DDR3	✔ | ✖ | ✖	1 | 1 | 6 | 8
Gigabyte GA-78LMT-S2PT	2,936	AM3+	AMD 760G + SB710	DDR3	✔ | ✖ | ✖	1 | 1 | 6 | 8
Asrock A55M-HVS	3,023	FM1	AMD A55	DDR3	✔ | ✖ | ✔	1 | 1 | 6 | 12
Jetway TA55M-L	3,245	FM1	AMD A55	DDR3	✔ | ✔ | ✖	1 | 1 | 4 | 8
Gigabyte GA-A55M-DS2	3,296	FM1	AMD A55	DDR3	✔ | ✔ | ✖	1 | 1 | 4 | 8
Digilite DL-A55M	3,322	FM1	AMD A55	DDR3	✔ | ✔ | ✔	1 | 2 | 6 | 10
Digilite DL-A88GMV	3,451	AM3	AMD 880G + SB710	DDR3	✔ | ✔ | ✔	1 | 2 | 5 | 12
Asus F1A55-M LE	3,889	FM1	AMD A55	DDR3	✔ | ✔ | ✖	2 | 1 | 6 | 12
Jetway TA98MG	4,223	AM3+	AMD 880G + SB710	DDR3	✔ | ✔ | ✔	1 | 1 | 4 | 8
Digilte DL-A75M	4,816	FM1	AMD A75	DDR3	✔ | ✔ | ✔	1 | 2 | 6 | 14
Asus F1A55-M	5,871	FM1	AMD A55	DDR3	✔ | ✔ | ✔	2 | 1 | 6 | 14
Asus M5A88-M	5,974	AM3+	AMD 880G + SB710	DDR3	✔ | ✔ | ✔	1 | 1 | 6 | 14
Asrock 970 Extreme 3	6,700	AM3+	AMD 970 + SB950	DDR3	NA	2 | 2 | 5 | 12
Asus M5A97	6,773	AM3+	AMD 970 + SB950	DDR3	NA	2 | 2 | 6 | 14
Asus F1A55-V	7,365	FM1	AMD A55	DDR3	✔ | ✔ | ✔	2 | 3 | 6 | 12
Jetway HA-18	7,777	AM3+	AMD 990X + SB950	DDR3	NA	2 | 1 | 6 | 14
Asus M5A88-V Evo	8,189	AM3+	AMD 880G + SB850	DDR3	✔ | ✔ | ✔	2 | 3 | 5 | 14
Asus F1A75-M Pro	8,240	FM1	AMD A75	DDR3	✔ | ✔ | ✔	2 | 1 | 6 | 16
Asus M5A99FX Pro	10,661	AM3+	AMD 990FX + SB950	DDR3	NA	3 | 1 | 8 | 18
Asrock 990 FX Extreme 4	10,853	AM3+	AMD 990FX + SB950	DDR3	NA	3 | 2 | 8 | 14
Gigabyte GA-990FXA-UD3	13,133	AM3+	AMD 990FX + SB950	DDR3	NA	4 | 1 | 6 | 18
Asrock Fatal1ty 990FX Pro	14,098	AM3+	AMD 990FX + SB950	DDR3	NA	3 | 2 | 6 | 16
Asus Sabertooth 990FX	14,189	AM3+	AMD 990FX + SB950	DDR3	NA	3 | 1 | 8 | 18
Asus Crosshair V Formula	16,923	AM3+	AMD 990FX + SB950	DDR3	NA	3 | 1 | 7 | 18

NOTE: Street prices (incl. VAT) as on 20 February 2013.

MARKET WATCH



LAPTOPS

NAME	PRICE (Rs)	WEIGHT	PROCESSOR	SPEED	RAM	DISPLAY	HDD	OPTICAL DRIVE	OS
Asus X54C-SX365D	21,630	2.60 Kg	Intel Pentium Dual Core	2.20 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
Fujitsu Lifebook LH531	21,888	2.20 Kg	Intel Pentium Dual Core	2.20 GHz	2 GB	14.0-inch	320 GB	DVD±RW	DOS
Acer E1-431	22,145	2.40 Kg	Intel Pentium Dual Core	2.20 GHz	2 GB	14.1-inch	320 GB	DVD-RW	Linux
Toshiba Satellite C850-P5010	22,145	2.30 Kg	Intel Pentium Dual Core	2.10 GHz	2 GB	15.6-inch	320 GB	DVD±RW	DOS
Samsung NP-RV513-A02IN	23,484	2.45 Kg	Intel Pentium Dual Core	1.65 GHz	2 GB	15.6-inch	320 GB	DVD±RW	DOS
Acer E1-531	24,463	2.45 Kg	Intel Pentium Dual Core	2.20 GHz	2 GB	15.6-inch	320 GB	DVD-RW	Win 7 HB
Toshiba Satellite C665-P5211	24,720	2.60 Kg	Intel Pentium Dual Core	2.00 GHz	4 GB	15.6-inch	320 GB	DVD±RW	Win 7 HB
LG ED530-L	24,978	2.66 Kg	Intel Core i3	2.10 GHz	2 GB	15.6-inch	500 GB	DVD+-RW	DOS
HP 2000 -2104TU	27,089	2.45 Kg	Intel Pentium Dual Core	2.10 GHz	2 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
Fujitsu Lifebook LH531	27,295	2.20 Kg	Intel Core i3	2.30 GHz	4 GB	14.0-inch	500 GB	DVD±RW	DOS
Acer V5-431	27,810	2.40 Kg	Intel Pentium Dual Core	1.50 GHz	2 GB	14.1-inch	500 GB	DVD-RW	Win 7 HB
Samsung NP-RV509-A0CIN	28,325	2.45 Kg	Intel Core i3	2.53 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
TOSHIBA Satellite L750-i5010	28,840	2.45 Kg	Intel Core i3	2.30 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
Samsung NP300E5Z-A0UIN	29,767	2.30 Kg	Intel Core i3	2.3 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
Toshiba Satellite C850-i5010	29,870	2.30 Kg	Intel Core i3	2.30 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
Lenovo B570 59-307494	30,231	2.45 Kg	Intel Core i3	2.20 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
HP 2000 -2120TU	31,405	2.45 Kg	Intel Core i3	2.40 GHz	2 GB	15.6-inch	500 GB	DVD±RW	DOS
LG E530-G	31,673	2.66 Kg	Intel Core i3	2.10 GHz	2 GB	15.6-inch	500 GB	DVD+-RW	Win 7 HB
Fujitsu Lifebook LH531	32,703	2.20 Kg	Intel Core i5	2.50 GHz	4 GB	14.0-inch	500 GB	DVD±RW	DOS
LG S530-G	32,960	2.60 Kg	Intel Core i3	2.10 GHz	2 GB	15.6-inch	500 GB	DVD+-RW	Win 7 HB
HP 1000-1130TU	33,980	2.45 Kg	Intel Core i3	2.40 GHz	2 GB	14.1-inch	500 GB	DVD±RW	Win 7 HB
Samsung NP300E5Z-S0AIN	35,123	2.30 Kg	Intel Core i3	2.3 GHz	4 GB	15.6-inch	750 GB	DVD±RW	DOS
HP Pavilion G6-1301TX	35,525	2.30 Kg	Intel Core i3	2.30 GHz	2 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
Lenovo Z370 59-313716	35,793	2.44 Kg	Intel Core i3	2.20 GHz	2 GB	13.3-inch	320 GB	DVD±RW	Win 7 HB
Lenovo Z470 59-313567	36,565	2.30 Kg	Intel Core i3	2.20 GHz	4 GB	14.0-inch	750 GB	DVD±RW	Win 7 HB
LG PD420-K	36,565	1.99 Kg	Intel Core i3	2.20 GHz	4 GB	14.0-inch	500 GB	DVD+-RW	DOS
Toshiba Satellite L740-X4211	37,080	2.10 Kg	Intel Core i5	2.40 GHz	4 GB	14.0-inch	500 GB	DVD±RW	Win 7 HB
Acer V3-571G (Core i3)	37,338	2.60 Kg	Intel Core i3	2.30 GHz	4 GB	15.6-inch	500 GB	DVD-RW	Win 7 HB
Acer V5-571G	37,853	2.60 Kg	Intel Core i3	1.60 GHz	4 GB	15.6-inch	500 GB	DVD-RW	Win 7 HB
Lenovo Z370 59-314056	38,110	2.60 Kg	Intel Core i5	2.40 GHz	2 GB	13.3-inch	750 GB	DVD±RW	Win 7 HB
HP Pavilion G6-2101TU	38,615	2.10 Kg	Intel Core i3	2.40 GHz	2 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
HP Pavilion G6-2134TX	38,615	2.10 Kg	Intel Core i3	2.30 GHz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
LG S530-K	38,625	2.60 Kg	Intel Core i3	2.10 GHz	4 GB	15.6-inch	640 GB	DVD+-RW	Win 7 HB
Asus K53SM-SX010D	40,067	2.60 Kg	Intel Core i5	2.50 GHz	4 GB	15.6-inch	750 GB	DVD±RW	DOS
LG P420-N	40,170	1.99 Kg	Intel Core i5	2.3 GHz	2 GB	14.0-inch	500 GB	DVD+-RW	Win 7 HP
Lenovo ThinkPad Edge E430	40,505	2.30 Kg	Intel Core i5	2.40 GHz	2 GB	14.0-inch	500 GB	DVD±RW	DOS
Fujitsu Lifebook SH531	41,355	1.90 Kg	Intel Core i5	2.50 GHz	4 GB	13.3-inch	500 GB	DVD±RW	Win 7 Pro

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LAPTOPS



NAME	PRICE (Rs)	WEIGHT	PROCESSOR	SPEED	RAM	DISPLAY	HDD	OPTICAL DRIVE	OS
Lenovo Z570 59-304308	41,612	2.60 Kg	Intel Core i5	2.30 GHz	3 GB	15.6-inch	750 GB	DVD±RW	Win 7 HP
HP Pavilion G4-2036TU	41,705	2.00 Kg	Intel Core i5	2.50 Ghz	4 GB	14.1-inch	500 GB	DVD±RW	Win 7 HB
HP Pavilion G6-2103TU	41,705	2.10 Kg	Intel Core i5	2.50 Ghz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
ASUS S56CA-XX030R	42,745	2.30 Kg	Intel Core i3	1.8 GHz	8 GB	15.6-inch	500 GB	BD Combo	Win 7 HB
Fujitsu Lifebook A531	43,183	2.50 Kg	Intel Core i5	2.50 GHz	4 GB	15.6-inch	320 GB	DVD±RW	Win 7 Pro
Sony Vaio E14113	43,560	2.40 Kg	Intel Core i5	2.50 GHz	4 GB	14.0-inch	500 GB	DVD±RW	Win 7 HB
HP Pavilion G6-2106TX	43,765	2.10 Kg	Intel Core i3	2.40 GHz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
Sony Vaio T13113	44,528	1.60 Kg	Intel Core i3	1.40 GHz	4 GB	13.3-inch	500 GB	No	Win 7 HB
HP Envy 6-1001TU	44,795	1.93 Kg	Intel Core i3	1.40 GHz	4 GB	15.6-inch	500 GB	No	Win 7 HB
HP Pavilion g6-2004tx	44,795	2.47 Kg	Intel Core i5	2.50 GHz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
Lenovo Z570 59-315960	45,320	2.60 Kg	Intel Core i5	2.40 GHz	4 GB	15.6-inch	750 GB	DVD±RW	DOS
HP Envy 4-1036TU	45,825	1.75 Kg	Intel Core i3	1.8 GHz	4 GB	14.1-inch	500 GB	No	Win 7 HB
Sony Vaio E14115	46,464	2.40 Kg	Intel Core i5	2.50 GHz	4 GB	14.0-inch	640 GB	DVD±RW	Win 7 HP
HP Pavilion G6-2016TX	46,855	2.10 Kg	Intel Core i5	2.50 Ghz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HB
ASUS S56CA-XX056R	48,410	2.30 Kg	Intel Core i5	2.60 GHz	8 GB	15.6-inch	750 GB	BD Combo	Win 7 HB
Lenovo Z570 59-321453	48,410	2.60 Kg	Intel Core i5	2.50 GHz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HP
Samsung NP300V5A-S0CIN	49,995	2.45 Kg	Intel Core i7	2.20 GHz	6 GB	15.6-inch	1 TB	DVD±RW	Win 7 HP
HP Envy 6-1003TX	50,975	1.93 Kg	Intel Core i3	1.40 GHz	4 GB	15.6-inch	500 GB	No	Win 7 HB
Lenovo Z570 59-321133	52,530	2.60 Kg	Intel Core i7	2.20 GHz	4 GB	15.6-inch	500 GB	DVD±RW	Win 7 HP
Sony Vaio S13112 (Black)	53,242	1.72 Kg	Intel Core i5	2.50 GHz	4 GB	13.3-inch	500 GB	DVD±RW	Win 7 HB
Asus K55VM-SX086D	53,818	2.60 Kg	Intel Core i7	2.20 GHz	8 GB	15.6-inch	1 TB	DVD±RW	DOS
Sony Vaio E14A15	54,210	2.30 Kg	Intel Core i5	2.50 GHz	4 GB	14.0-inch	640 GB	DVD±RW	Win 7 HP
Acer Aspire TimelineUltra M3-581TG	54,333	2.25 Kg	Intel Core i5	1.60 GHz	4 GB	15.6-inch	500 GB	DVD-RW	Win 7 HP
HP Pavilion DM4-3010TX	54,580	1.40 Kg	Intel Core i5	2.50 GHz	6 GB	14.1-inch	640 GB	DVD-RW	Win 7 HP
HP Envy 4-1025TX	55,610	1.75 Kg	Intel Core i5	2.60 GHz	4 GB	14.1-inch	500 GB	No	Win 7 HB
HP Envy 4-1037TX Sleekbook	55,610	1.75 Kg	Intel Core i5	2.60 GHz	4 GB	14.1-inch	500 GB	No	Win 7 HB
HP Envy 6-1002TX	55,610	1.93 Kg	Intel Core i5	2.60 GHz	4 GB	15.6-inch	500 GB	No	Win 7 HB
Sony Vaio E14117	57,115	2.40 Kg	Intel Core i7	2.90 GHz	4 GB	14.0-inch	500 GB	DVD±RW	Win 7 Pro
HP Pavilion DM4-3022TX	58,185	1.40 Kg	Intel Core i5	2.50 GHz	6 GB	14.1-inch	640 GB	DVD-RW	Win 7 HP
HP Pavilion M6-1002TX	58,700	2.40 Kg	Intel Core i5	2.50 Ghz	6 GB	15.6-inch	750 GB	DVD±RW	Win 7 HP
HP Envy 4-1002TX	60,760	1.75 Kg	Intel Core i5	2.60 GHz	4 GB	14.1-inch	500 GB	No	Win 7 HB
HP Envy 4-1046TX	60,760	1.75 Kg	Intel Core i5	2.60 GHz	4 GB	14.1-inch	500 GB	No	Win 7 HB
HP Envy Spectre XT 13-2001TU	66,425	1.20 Kg	Intel Core i5	2.60 GHz	4 GB	13.3-inch	128 GB	No	Win 7 HP
Sony Vaio S13118	74,542	1.72 Kg	Intel Core i7	2.90 GHz	4 GB	13.3-inch	750 GB	DVD±RW	Win 7 Pro

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MARKET WATCH



GRAPHICS CARDS: AMD

NAME	PRICE (RS)	RADEON GPU	DIRECT X	MEMORY TYPE	MEMORY | BUD WIDTH	SHADERS	CORE | MEMORY SPEED
HIS HD6450 H645F1G	2,601	HD 6450	11.0	DDR3	1 GB | 64-bit	160	625 MHz | 1000 MHz
Sapphire HD 6450	2,848	HD 6450	11.0	DDR3	1 GB | 64-bit	160	625 MHz | 1334 MHz
XFX HD-645X-ZNH3	2,962	HD 6450	11.0	DDR3	1 GB | 64-bit	160	625 MHz | 800 MHz
Asus EAH6570/DI/1GD3(LP)	4,017	HD 6570	11.0	DDR3	1 GB | 128-bit	480	650 MHz | 1800 MHz
HIS HD6570 H657HS2G	4,481	HD 6570	11.0	DDR3	2 GB | 128-bit	480	650 MHz | 1000 MHz
Sapphire HD 6570	4,787	HD 6570	11.0	DDR3	2 GB | 128-bit	480	650 MHz | 1600 MHz
HIS HD6670 H667FS1G	4,970	HD 6670	11.0	DDR3	1 GB | 128-bit	480	800 MHz | 1600 MHz
XFX HD-657X-CNF3	5,228	HD 6570	11.0	DDR3	2 GB | 128-bit	480	650 MHz | 1000 MHz
XFX HD-657X-ZQFC	5,305	HD 6570	11.0	GDDR5	1 GB | 128-bit	480	650 MHz | 4000 MHz
Asus EAH6670/DIS/1GD5	5,717	HD 6670	11.0	GDDR5	1 GB | 128-bit	480	810 MHz | 400 MHz
Sapphire HD 6670	5,977	HD 6670	11.0	GDDR5	1 GB | 128-bit	480	800 MHz | 4000 MHz
Asus HD7750-1GD5-V2	7,365	HD 7750	11.0	GDDR5	1 GB | 128-bit	512	820 MHz | 4600 MHz
Sapphire HD 7750	7,491	HD 7750	11.0	GDDR5	1 GB | 128-bit	512	850 MHz | 4000 MHz
HIS HD6770 H677FN1GD	7,519	HD 6770	11.0	GDDR5	1 GB | 128-bit	800	850 MHz | 4800 MHz
HIS HD7750 H775F1GD	7,571	HD 7750	11.0	GDDR5	1 GB | 128-bit	512	800 MHz | 4500 MHz
HIS HD7770 iCooler H777F1G2M	9,296	HD 7770	11.0	GDDR5	1 GB | 128-bit	640	1000 MHz | 4500 MHz
Asus HD7770-DC-1GD5-V2	9,348	HD 7770	11.0	GDDR5	1 GB | 128-bit	640	1020 MHz | 4600 MHz
Sapphire HD 7770	9,749	HD 7770	11.0	GDDR5	1 GB | 128-bit	640	1000 MHz | 1000 MHz
HIS HD6870 ICEQ H687QN1G2M	12,489	HD 6870	11.0	GDDR5	1 GB | 256-bit	1120	900 MHz | 4200 MHz
XFX HD-687A-ZNFC	13,957	HD 6870	11.0	GDDR5	1 GB | 256-bit	1120	900 MHz | 4200 MHz
HIS HD7850 ICEQX H785QN2G2M	16,274	HD 7850	11.0	GDDR5	2 GB | 256-bit	1024	860 MHz | 1200 MHz
Sapphire HD7850	16,686	HD 7850	11.0	GDDR5	2 GB | 256-bit	1024	860 MHz | 4800 MHz
Asus HD7850-DC2-2GD5	18,721	HD 7850	11.0	GDDR5	2 GB | 256-bit	1024	870 MHz | 4840 MHz
Sapphire HD 7870 Edition	19,905	HD 7870	11.0	GDDR5	2 GB | 256-bit	1280	1000 MHz | 4800 MHz
HIS HD7870 ICEQ H787Q2G2M	23,768	HD 7870	11.0	GDDR5	2 GB | 256-bit	1280	1000 MHz | 4800 MHz
Sapphire HD 7950	26,342	HD 7970	11.0	GDDR5	3 GB | 384-bit	1792	810 MHz | 5000 MHz
HIS HD7950 H795F3G2M	26,471	HD 7950	11.0	GDDR5	3072 MB | 384-bit	1792	800 MHz | 5000 MHz
Asus HD7950-DC2T-3GD5	29,433	HD 7950	11.0	GDDR5	3 GB | 384-bit	1792	900 MHz | 5000 MHz
Sapphire HD 7970	33,913	HD 7970	11.0	GDDR5	3072 MB | 384-bit	2048	925 MHz | 5500 MHz
HIS HD7970 ICEQX2	35,922	HD 7970	11.0	GDDR5	3072 MB | 384-bit	2048	925 MHz | 1375 MHz
XFX FX-797A-TNFC	40,454	HD 7970	11.0	GDDR5	3 GB | 384-bit	2048	925 MHz | 5500 MHz



EXTERNAL DRIVES

NAME	PRICE(RS)	CAPACITY	INTERFACE	FORM FACTOR
Buffalo HD-PNT 500	4,326	500 GB	USB 3.0	2.5-inch
Western Digital Elements SE	4,384	500 GB	USB 3.0	2.5-inch
ADATA AHD710-500GU3-CBK	4,760	500 GB	USB 3.0	2.5-inch
Buffalo HD PZ500U3	5,407	500 GB	USB 3.0	2.5-inch
Verbatim Store 'n' Go USB 3.0	5,899	1 TB	USB 3.0	2.5-inch
Seagate Free Agent GoFlex STAA1000302	5,950	1 TB	USB 3.0	2.5-inch
ADATA AHD710-1TU3-CBK	6,788	1 TB	USB 3.0	2.5-inch
Seagate Go Flex Satellite (wireless)	10,546	500 GB	USB 3.0	2.5-inch

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GRAPHICS CARDS: Nvidia

NAME	PRICE (Rs)	GEFORCE GPU	DIRECT X	MEMORY TYPE	MEMORY | BUS WIDTH	SHADERS	CORE | MEMORY SPEED
Asus 210-SL-TC1GD3-L	1,726	210	11.0	DDR3	1 GB | 32-bit	480	600 MHz | 1200 MHz
Asus GT610-1GD3-L	2,833	GT 610	11.0	DDR3	1 GB | 64-bit	48	810 MHz | 1200 MHz
Forsa GeForce GT520	2,910	GT 520	11.0	DDR3	2 GB | 64-bit	48	810 MHz | 1066 MHz
Forsa GeForce GT610	2,987	GT 610	11.0	SDDR3	2 GB | 64-bit	48	810 MHz | 1300 MHz
Asus GT620-1GD3-L	3,451	GT 620	11.0	DDR3	1 GB | 64-bit	96	700 MHz | 1200 MHz
Forsa GeForce GT620	3,837	GT 620	11.0	SDDR3	2 GB | 64-bit	96	710 MHz | 1300 MHz
Forsa GeForce GT430	3,863	GT 430	11.0	DDR3	2 GB | 128-bit	96	700 MHz | 1066 MHz
Zotac GeForce GT 630 Synergy	4,050	GT 630	11.0	DDR3	2 GB | 128-bit	96	810 MHz | 1333 MHz
Forsa GeForce GT630	4,172	GT 630	11.0	DDR3	2 GB | 128-bit	96	810 MHz | 1300 MHz
Forsa GeForce GT440	4,275	GT440	11.0	DDR3	2 GB | 128-bit	96	810 MHz | 1066 MHz
Asus GT630-2GD3	4,944	GT 630	11.0	DDR3	2 GB | 128-bit	96	810 MHz | 1820 MHz
Forsa GeForce GTS 450	6,386	GTS 450	11.0	DDR3	2 GB | 128-bit	192	783 MHz | 1804 MHz
Forsa GeForce GT640	6,592	GT 640	11.0	DDR3	2 GB | 192-bit	384	900 MHz | 1800 MHz
Zotac GeForce GTX 650	9,875	GTX 650	11.0	GDDR5	2 GB | 128-bit	384	1071 MHz | 5000 MHz
Forsa GeForce GTX 560	11,294	GTX 560	11.0	DDR5	1 GB | 256-bit	384	850 MHz | 4104 MHz
Zotac GeForce GTX 650 Ti	12,550	GTX 650 Ti	11.0	GDDR5	2 GB | 256-bit	768	941 MHz | 5400 MHz
Forsa GeForce GTX 560 Ti	13,184	GTX 560 Ti	11.0	DDR5	1 GB | 256-bit	336	822 MHz | 4000 MHz
Forsa GeForce GTX670	28,109	GTX 670	11.0	GDDR5	2 GB | 256-bit	1344	900 MHz | 6008 MHz
Zotac GeForce GTX 670	28,550	GTX 670	11.0	DDR5	2 GB | 256-bit	1344	915 MHz | 6008 MHz
Asus GTX670-DC2-2GD5	29,227	GTX 670	11.0	GDDR5	2 GB | 256-bit	1344	915 MHz | 6008 MHz
Forsa GeForce GTX680	33,733	GTX 680	11.0	GDDR5	2 GB | 256-bit	1536	1006 MHz | 6008 MHz
Zotac GeForce GTX 680	35,950	GTX 680	11.0	DDR5	2 GB | 256-bit	1536	1110 MHz | 6008 MHz



PROJECTORS

NAME	PRICE (RS)	TYPE	BRIGHTNESS	RESOLUTION	CONTRAST RATIO
Mitsubishi ES200U	25,622	DLP	2400 Lumens	800 x 600	2000:1
Viewsonic PJD5152	30,720	DLP	2600 Lumens	800 x 600	3000:1
Sony VPL-EX100	31,415	LCD	2300 Lumens	1024 x 768	2200:1
Sharp PG-D2500	38,754	DLP	2500 Lumens	1024 x 768	1100:1
LG BX275	39,849	DLP	2700 Lumens	1024 x 768	2200:1
Sony VPL-EX120	41,715	LCD	2600 Lumens	1600 x 1200	2500:1
Viewsonic PJL3211	45,192	LCD	2500 Lumens	1024 x 768	500:1
Mitsubishi EX320U	45,372	DLP	3000 Lumens	1024 x 768	2000:1
Acer P1201	45,643	DLP	2700 Lumens	1024 x 768	3700:1
Sharp PG-D3010X	53,586	DLP	3000 Lumens	1024 x 768	2000:1
Acer K330	59,548	DLP	500 Lumens	1280 x 800	4000:1
Sony VPL-EX175	61,285	LCD	3600 Lumens	1024 x 768	4000:1
Acer S5201	69,977	DLP	3000 Lumens	1024 x 768	4500:1
Acer P5206	75,770	DLP	4000 Lumens	1024 x 768	4500:1
Mitsubishi XD600U	79,259	DLP	4500 Lumens	1024 x 768	2000:1

MARKET WATCH



DIGITAL CAMERAS

PRODUCT TITLE	PRICE(RS)	RESOLUTION	OPTICAL ZOOM	WIDE ANGLE	APERTURE	LCD SIZE	SHUTTER SPEED
Canon PowerShot A1200	3,875	12.1 MP	4x	28 mm	F2.8 - F5.9	2.7-inch	15 - 1/1600 sec
Olympus VG-150	4,131	12 MP	4x	27 mm	F2.9 - F6.5	2.7-inch	1/2 - 1/2000 sec
Nikon Coolpix L26	5,014	16.1 MP	5x	26 mm	F3.2 - F6.5	3.0-inch	NA
Fujifilm FinePix JX500	5,073	14 MP	5x	26 mm	F3.5 - F6.3	2.7-inch	8 - 1/1400 sec
Canon PowerShot A2200	5,110	14.1 MP	4x	28 mm	F2.8 - F5.9	2.7-inch	15 - 1/1600 sec
Sony Cybershot DSC S5000	5,290	14.1 MP	5x	28 mm	F3.2 - F6.5	2.7-inch	2 - 1/2000 sec
Nikon Coolpix S2600	5,474	14 MP	5x	23 mm	F3.2 - F6.5	2.7-inch	NA
Sony Cybershot DSC-W610	6,268	14.1 MP	4x	26 mm	F2.8 - F5.9	2.7-inch	1 - 1/1600 sec
Nikon Coolpix S3300	6,394	16 MP	6x	26 mm	F3.5 - F6.5	2.7-inch	NA
Olympus VG-170	7,351	14 MP	5x	26 mm	F2.8 - F6.5	3.0-inch	1/2 - 1/2000 sec
Samsung ST66	7,690	16.1 MP	5x	25 mm	F2.5 - F6.3	2.7-inch	8 - 1/2000 sec
Sony Cybershot DSC-W630	7,736	16.1 MP	5x	28 mm	F2.6 - F6.3	2.7-inch	2 - 1/1600 sec
Nikon Coolpix S6300	9,154	16 MP	10x	25 mm	F3.2 - F5.8	3.0-inch	NA
Fujifilm FinePix T350	9,270	14 MP	10x	28 mm	F3.4 - F5.6	3.0-inch	1/4 - 1/2000 sec
Canon PowerShot SX150 IS	9,295	14.1 MP	12x	28 mm	F3.4 - F5.6	3.0-inch	15 - 1/2500 sec
Canon PowerShot A4000 IS	10,225	16 MP	8x	28 mm	F3.0 - F539	3.0-inch	15 - 1/2000 sec
Nikon Coolpix S100	11,914	16 MP	5x	28 mm	F3.9-F4.8	3.5-inch	NA
Nikon Coolpix S8200	12,374	16.1 MP	14x	25 mm	F3.3 - F5.9	3.0-inch	NA
Nikon Coolpix L810	12,834	16.1 MP	26x	22.5 mm	F3.1 - F5.9	3.0-inch	4 - 1/1500 sec
Fujifilm FinePix S4500	13,468	14 MP	30x	24 mm	F3.1 - F5.9	3.0-inch	8 - 1/2000 sec
Olympus SZ-14	13,791	14 MP	24x	25 mm	F3.0 - F6.9	3.0-inch	NA
Fujifilm FinePix F660EXR	14,420	16 MP	15x	24 mm	F3.5 - F7.1	3.0-inch	8 - 1/2000 sec
Panasonic Lumix DMC-TZ25	14,871	12.1 MP	16x	28 mm	F3.3 - F5.9	3.0-inch	15 - 1/4000 sec
Canon IXUS 240 HS	14,875	16.1 MP	5x	24 mm	F2.7 - F5.9	3.2-inch	15 - 1/2000 sec
Samsung WB700	15,490	14.2 MP	18x	24 mm	F3.2 - F5.8	3.0-inch	16 - 1/2000 sec
Nikon Coolpix S9300	15,594	16 MP	18x	25 mm	F3.5 - F7.0	3.0-inch	NA
Fujifilm FinePix SL300	15,605	14 MP	24x	24 mm	F3.1 - F8.0	3.0-inch	8 - 1/2000 sec
Sony Cybershot DSC-HX10V	16,450	18.2 MP	16x	26 mm	F3.3 - F5.9	3.0-inch	4 - 1/1600 sec
Canon PowerShot SX240 HS	16,735	12.1 MP	20x	25 mm	F3.5 - F6.8	3.0-inch	15 - 1/3200 sec
Fujifilm FinePix HS25EXR	18,540	16 MP	30x	24 mm	F2.8 - F11.0	3.0-inch	30 - 1/4000 sec
Panasonic Lumix DMC-TZ30	18,591	14.1 MP	20x	24 mm	F3.3 - F6.4	3.0-inch	15 - 1/2000 sec
Sony Cybershot DSC-HX20V	19,287	18.2 MP	20x	25 mm	F3.2 - F5.8	3.0-inch	4 - 1/1600 sec
Panasonic Lumix DMC-FZ47	19,521	12.1 MP	24x	25 mm	F2.8 - F5.2	3.0-inch	60 - 1/2000 sec
Canon Powershot S95	20,455	10 MP	3.8x	28 mm	F2.0 - F4.9	3.0-inch	15 - 1/1600 sec
Nikon Coolpix P510	22,034	16.1 MP	42x	24 mm	F3.0 - F5.6	3.0-inch	4 - 1/2000 sec
Olympus XZ-1	22,995	10 MP	4x	28 mm	F1.8 - F2.5	3.0-inch	60 - 1/2000 sec
Olympus SZ-31MR	23,911	16 MP	24x	25 mm	F3.0 - F6.9	3.0-inch	1/4 - 1/1700 sec
Panasonic Lumix DMC-FZ150	24,300	12.1 MP	24x	25 mm	F2.8 - F5.2	3.0-inch	15 - 1/2000 sec
Canon Powershot G12	29,755	10 MP	5x	28 mm	F2.8 - F4.5	2.8-inch	15 - 1/4000 sec
Panasonic Lumix DMC-FZ200	32,541	12.1 MP	24x	25 mm	F2.8 full range	3.0-inch	60 - 1/4000 sec

NOTE: Street prices (incl. VAT) as on 20 February 2013.



HOW DOES ANY MANUFACTURER EXPECT TO SELL 4K TVS? THERE'S NOTHING YOU CAN DO WITH THEM. NO MOVIES, NO GAMES, NO TV BROADCASTS. SOMETHING'S GOTTA GIVE.

JAMSHED AVARI, DEPUTY EDITOR

WAIT AND WATCH

We're about to step into a new age of content delivery. The 4K TV generation is here, but unlike HD and 3D that came before it, there is no physical disc format capable of storing 4K content, and no standards for playing it.

DVDs came along in the late 90s and began displacing VHS cassettes in living rooms around the world. High-def flat-screen TVs became popular during this time, and even though DVDs look great on HDTVs, their resolution is significantly lower than HD. Blu-ray was needed to fill up all those pixels, and for everyone who thought DVDs were impressive enough, true 1080p playback came as a revelation. At each step of the way, people weren't necessarily dissatisfied with their previous-generation hardware and content but they were able to see that something far better was available. Even if was too expensive at the time, they had a good idea of what the next step would be when they were ready to take it.

4K TVs are now here, and like any brand-new premium products that exist mainly so that their manufacturers can claim bragging rights, they're morbidly expensive. But this time, there's no content at launch time and there isn't likely to be any soon, so there's nothing really tempting anyone to buy them. 4K video files exist for computers and can be played on 4K screens if you use the right hardware and cables, but that isn't the way things are done at home. There simply isn't a way for someone to buy a 4K TV today and show it off to his or her friends and neighbours—even if money is no object.

Every potential buyer will ask whether he can play 4K movies with his existing DVD or Blu-ray player. When he finds out he can't, he'll ask what will work instead. There just isn't an answer to that question, and that's a further disincentive for anyone considering a forward-looking investment. There aren't any 4K movies to watch. There isn't a version of Blu-ray (or a successor to it) that can hold the amount of data a 4K movie would require. Even if there was, no standard for encoding and compressing such data exists. Industry stakeholders would have to get together and hash out details of the codecs, specifications and copyright protection mechanisms that will be used. If they can't agree, we'll end up with multiple competing standards again, but it's quite likely that they don't want to agree in the first place.

Manufacturers and content owners don't want a Blu-ray successor to exist. They'll make more money and have tighter control over their media if they set up their own digital services. If you want to watch their content, you'll need a TV or a set-top box (or at least an app) that works the way they want it to. While this might make sense in parts of the world where broadband Internet access isn't a joke (and your monthly data cap can accommodate 25+ GB per movie), it simply won't do for us or for millions of other people around the world. So we're left out in the cold (and also pushed into pirates' waiting arms).

Every new tech generation has an initial chicken-and-egg period during which people don't buy in because things are too expensive and prices don't come down because there's no audience to justify mass production. The cycle needs to be broken, but how is that going to happen this time? 4K TV is a wonderful experience—far more rewarding than 3D—but it looks as though no one will be able to enjoy it.

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insider



PREVIEW

CRYSIS 3 MULTIPLAYER

Threading jugulars is now a social activity

REVIEWS

DmC Devil May Cry
Zone of the Enders HD Collection
Temple Run 2

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Include your email address to help us reply.

Letters

Send in your letters to insider@chip.in

Upgrade the Consoles?

Hi Team CHIP! I love games, and though I don't own a PC or a console, I love reading about them. I watch production videos and reviews all the time. I have a question: if PCs are considered the best for gaming as they are upgradable, why do people buy consoles when they know that after five years they will become obsolete?? Why don't Sony or Microsoft make upgradable versions of their consoles?? Thank you.

– Subhkaran Singh

Dear Subhkaran,

The lack of complexity is one of the major reasons why a lot of gamers prefer to buy consoles instead of a computer. Since console hardware specs are fixed, gamers can rest assured that games will run perfectly. It's also easier for developers to code and optimise games for a fixed platform. You've hit the nail on the head with your angle on ageing consoles. Upgrading consoles isn't feasible for a number of factors. A console optimised for a certain specification is easier and cheaper to manufacture, and will provide optimum performance. The moment you make such a platform modular enough to accept upgrades, the cost goes up, and it also makes it difficult to extract 100 percent performance out of a hardware platform that has to make way for components entailed by such upgrades. The second and the most important aspect is that doing so will make life harder for game developers, who now have to ensure their games run uniformly on upgraded and stock consoles. In a nutshell, such a console will turn into a poor cousin of the PC, with the same fragmentation and incompatibility issues. If you ask us, that's a rather terrible proposition.

- Team CHIP Insider

Should I buy a PS2?

Hi CHIP! I have been wondering if you could put together all rumors about the next gen consoles. I also wanted to ask you whether you guys think it is still worth it to buy a PS2? Or do you think it will be useless once the next gen consoles arrive? Thanks in advance.

– Ishan

Dear Ishan,

The most we can tell you right now is to keep watching this space for more updates. We will, however, provide in-depth coverage once we have a concrete confirmation or denial from Sony or Microsoft, which should happen by the time this issue hits the stands. Regarding your PS2 question, yes, the console is still very much one of the best gaming machines out there. It has a range of awesome games such as Ico, Shadow of the Colossus, Devil May Cry 3, and God of War. We find the notion of any game becoming "obsolete" with the appearance of "next-gen" titles downright ridiculous. We still prefer the original Quake over any modern cover shooter, or the god-like brilliance of Fallout's S.P.E.C.I.A.L system over the regressive mechanics of Dragon Age 2 and Dungeon Siege 2. Both games mentioned above are DOS-based and worth going back to every once in a while. The PS2 has a wealth of gaming experiences that just beg to be sampled, and most have strong gameplay that makes them timeless. Games with a strong art style don't go obsolete either, and the PS2 has plenty of them. Considering the wealth of games on offer, we say go for a PS2.

- Team CHIP Insider

Games should be free! Arr!

Dear Insider, first off, I want to say that you're doing an awesome job! Are you thinking of turning into a dedicated mag? If so, I have only one word—Hawken. I read about this game in your issue and visited its site. I was amazed. Is there a remote possibility of games becoming free-to-play? I mean, this could signal a huge change in a gamer's life. And yes, could you please increase the page count of the mag? We love it, but the content seems a little low.

– Neil Dias

Dear Neil,

We have been seeing a trend where a lot of big publishers are going for the free-to-play model. While the free-to-play model is gaining a lot of popularity, We doubt traditional games will disappear. Most of the time, free-to-play games need a lot of post-launch support to keep people playing. More importantly, a free-to-play game cannot afford to put 100 percent into achieving the best gameplay experience. There is a clear conflict of interest here. The developer will invariably have to ensure that their gameplay/design decisions deliver revenue first, whereas optimising and improving the overall quality will always come second. As a gamer, that will always be a sub-standard experience when compared to a full-paid game which has no ulterior motive/compulsions riding its design decisions.

- Team CHIP Insider

No Country for Hardcore



"Massive budgets entail a low risk appetite and force developers to nerf the skill ceiling so they can reach out to a wider, casual audience."

Back in the '90s, when men were men, women were men, and children were FBI agents, 8-bit consoles were meant for kids who had the reflexes of a Chinese table tennis player on acid and bore a will like that of a honey badger chasing a lady badger that has fallen into, a vat of honey. Calling these games tough and challenging by modern video game standards would be a stark understatement. Most importantly, such twitch and challenge was never achieved through the sub-standard controls that plague most modern games. The difficulty of these old-school 8-bit games, however, pivoted on devious level design and a brilliant brand of gameplay that was distilled over many painstaking hours of fine tuning.

Now contemporary games may look spectacular and boast of the sophistication and production values big-budget Hollywood movies have, but it's hard to deny that these games lack real gameplay substance. The reason for this is simple: games back then were created with shoestring budgets, whereas spending tens of millions of dollars for an AAA game isn't out of the ordinary these days. You see, a massive budget entails a low risk appetite, which forces developers to nerf the skill ceiling of their games to reach out to a wider casual audience.

Think about it: if you're an old-schooler who revels in challenging, masocore Indie games, when was the last time a modern mainstream game really challenged you? The FPS genre is the worst casualty of an utter dilution of crucial gameplay elements—all in the name of making the experience more accessible to 12-year-olds with controllers. Anyone who's played the first three Quake games can vouch for the world of difference this "aiming down sights" business makes to the flow of combat. The sole purpose of this mechanic was to slow down the gameplay enough to accommodate the awkward thumbstick. This may allow a console gamer to enjoy an FPS game without having his butt handed to him. However, doing so completely ruins the experience for someone who's proficient with the genre but cannot explore the depth of his skill set.

Crysis 2 is the most egregious example of such nerfing, especially since it was the first of Crytek's titles to cross into console territory. The extreme linearity and reduction in the scale and scope of maps to accommodate the consoles' limited hardware capabilities sapped the very soul of the Crysis experience. On the bright side, though, the upcoming Crysis 3's multiplayer mode looks and feels quite interesting, thanks to the clever decision to leverage the nanosuit and combat bow mechanics within its sublime Hunter vs Hunted dynamics.

Interestingly, an interview with the producer of the upcoming game also underscores how contemporary developers are trying to balance the need to keep things accessible and somehow maintain the very essence of what makes a game a challenging and fulfilling experience. No one knows how Crysis 3 will pan out, but I did play DmC Devil May Cry along with my equally DMC-crazy colleagues. Once you get past the rather unusual approach at reviewing the game, it will be clear that making a game open to gamers of varying skill sets doesn't always entail nerfing the core game mechanics. The reboot looks better, plays smoother, and brings an added depth to the franchise's already complex combat mechanics. I only wish the EAs and Activisions of the world would take a cue from Ninja Theory before nerfing their game libraries.

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In The News

COMPILED BY
SHUNAL DOKE

The Witcher 3: Wild Hunt announced, slated for 2014



CDProjekt RED has announced that The Witcher 3: Wild Hunt would be released in 2014 simultaneously on all high-end platforms, which could mean that it will also see a release on next-gen consoles. The game will be using the same art direction from The Witcher 2 and will have improved visuals courtesy the REDEngine 3. The game is set to combine the series' epic storyline with an open-world environment, which the company boasts will be a living world larger than any other in modern RPG history.

However, all good news is accompanied by bad news, and it's no different this time. The studio also revealed that this would be the last Witcher game it would be making.

Head of the studio Adam Badowski said, "Imagine playing a dark fantasy game with the same great non-linear story as in the previous Witcher titles, but now told in a world you can explore freely with no artificial boundaries. The war-ravaged world is so huge that to reach farther places you will need to ride a horse or sail a boat to get there. A world where your choices have truly epic consequences. From the development side, this goal is extremely demanding. Our team had to make significant design changes and our tech had to be rebuilt. But we believe that this will lead to a completely new level of non-linearity and a whole new, richer gaming experience. As a gamer, I would love to play this kind of RPG, and I think this is what many players are waiting for. This is our dream come true at CD Projekt RED, and we hope it will be the same for you!"

The company says that The Witcher 3: Wild Hunt will be the most robust game it has made. The open world will have different environments, such as war-ravaged lands and misty waters. Besides this, the combat system will be getting an overhaul, and the company claims that players will feel like real monster hunters. The game will also lack Quick Time Events, which were present in The Witcher 2 for some minigames like street fighting.



Resident Evil may get a complete reboot

It looks like Capcom is taking the criticism against recent Resident Evil games to heart. Resident Evil: Revelations producer Masachika Kawata has talked about potential changes to the series in light of recent complaints from gamers about the direction in which the game has been going. Kawata said, "It's important for us to have users' needs in mind when making the games."

While Kawata has admitted that the action/shooter direction for the game is a much more financially viable route to go compared to the series' traditional survival horror trappings, he went on to say that the two don't have to be mutually exclusive. Kawata also talks about a possible reboot for the series: "I think a lot of what people want now is to have Chris and Jill in a game, or they want it to look like Resident Evil used to look like. We should be able to start from scratch and reboot it. It would still be Resident Evil. We wouldn't lose the essential nature of what makes it a good game just by changing the characters."

Grand Theft Auto V delayed till September



Rockstar has announced that the release date for the next game in the GTA franchise—Grand Theft Auto V—has been delayed. The new release date, according to the company, is September 17, 2013. This is a four-month delay from the originally planned release date.

The company says the delay was required as, "GTAV is a massively ambitious and complex game and it simply needs a little more polish to be of the standard we and, more importantly, you require." Rockstar has also announced that it will be showing off the box art for GTAV a bit later.

While this has led many conspiracy theorists to contemplate the idea that Rockstar may be getting ready to launch the game on next-gen consoles, Rockstar itself has denied any of this. The company says that the delay is mostly because the developers wanted to polish the game some more. This is likely true, as open world games are notorious for having bugs that the developers couldn't even think of, thus leading to situations like The Elder Scrolls games.

Last of Us beta will be available to those who buy God of War: Ascension

It looks like Sony is trying to pull off what Konami did with Metal Gear Solid 2 and Metal Gear Rising: Revengeance, but in a rather strange way. According to a post on the PlayStation Blog, those who buy God of War: Ascension will get access to the demo of The Last of Us.



This is a strange idea, as getting Ascension won't get you the demo for The Last of Us immediately. Instead, you will get the demo when it is released. At the moment, Sony has not announced a possible release date for the demo of the Last of Us, but presumably, it would be well before the game's release date of May 7, 2013. You can check out the multiplayer demo of God of War: Ascension on PlayStation Network. When you start playing the beta, your first stop is the Rotunda of Olympus, where you learn the nitty-gritties of gladiator combat. Here you'll pick up vital techniques on special attacks, blocking, parrying and combos.

Ouya kicks off pre-orders, expected to ship in June



The Android-based Ouya console is now available for pre-order on its official website. The console comes with one controller and will cost $99.99 (about Rs 5,303). An extra controller will cost you $49.99 (around Rs 2,651).

Though this is a rather steep price for a controller, the inclusion of the touchpad makes it premium, according to Ouya CEO Julie Uhrman. The console is expected to start shipping in June 2013. The company also announced some changes to the controller in response to feedback from the community. The company has changed the d-pad design from a 'disc' to a 'cross' style. This is for greater accuracy and precision. The touchpad has also been made more responsive. The thumbsticks are getting a new rubberised top that will give better traction, and the triggers will have improved design and mechanics. The battery bay for the controller will also be made of higher-quality material.

Indian digital distribution platform downloads4u to offer Mac games



Game retailer Game4u has announced that a select list of recent and classic Mac games will soon be published by Aspyr Media on digital distribution platform, downloads4u. The catalogue of games for Mac includes AAA titles like Borderlands 2, Roller Coaster Tycoon 3, and the Call of Duty series. Before this, the only way for gamers with Macs to play new downloadable games was to fork over cash on Steam. As we all know, the prices on Steam follow the US system, where a single AAA title could cost upwards of Rs 2,000. Using downloads4u could cut the price down to half of what Steam charges.

The company has also announced plans to publish games from independent studios in the future.

This would make downloads4u the first digital distribution platform in India to offer games for Mac. This lets the service compete with Valve's Steam, as Steam also publishes games for Mac.

INDIA'S TOP 10 BESTSELLERS

DmC Devil May Cry
PC, PS3, XBOX 360





FIFA 13
PC, PS3, XBOX 360, PS2, PS VITA, PSP

Call Of Duty: Black Ops II
PC, PS3, XBOX 360





Far Cry 3
PC, PS3, XBOX 360

Need For Speed: Most Wanted
PC, PS3, XBOX 360, PS VITA





Assassin's Creed 3
PC, PS3, XBOX 360

WWE 13
PS3, XBOX 360, WII





Sports Champions 2
PS3

FIFA 12
PC, PS3, Xbox 360, PS2, PSP





Max Payne 3
PC, PS3, Xbox 360

Courtesy: GAME4U
Shop at www.game4u.com



CRYSIS 3 MULTIPLAYER

Get to the Choppa!

BY SHUNAL DOKE

The first two Crysis games weren't exactly known for their multiplayer component. If anything, the multiplayer felt tacked on, as if it existed just to sell more copies to the CoD crowd. But the latest game in the series is right around the corner and EA has been kind enough to give us a shot at Crysis 3's multiplayer mode before it's released.

Despite being in beta, the game feels solid. It'd be difficult for anyone to tell if it were a beta if Crytek hadn't put in a big red text overlay on the screen saying that, well, it's a beta. Besides that, however, it doesn't bring much to the table. The multiplayer beta had two game modes and two maps: Crash Site and Hunter.

Crash Site is Crytek's take on Team Fortress Classic's Control Point mode, which essentially involves opposing teams battling for dominion over key areas on the map. It's a lot like Dominion mode from the Call of Duty games or the Control Point maps from Team Fortress 2. The mode feels interesting, though, because the control point shifts from one location to another every couple of minutes, which invariably leads to a race between the teams to get there. The team with the most points wins. While it sounds pretty generic, there's a great deal of teamwork involved and this will probably end up being the second-most played game mode once Crysis 3 is out. The first will obviously be the Team Deathmatch mode.

Hunter is among the more unique game modes you'll find in a multiplayer FPS. Two players take on the role of the Hunter—think Predator—while others are survivors. The aim of the Hunters is to take out the survivors one by one within a two-minute time limit.

The hunters have permanent cloaking and use the Hunter Bow. The survivors just have to survive the two minutes. The twist is that when a hunter takes out a survivor, the player respawns as a hunter and has to aid the other hunters.

Hunter mode is undoubtedly one of the best things about the game. Playing as a hunter feels empowering: you stalk your prey through the swamps and line up the perfect shot while racing against the clock to kill everyone. Playing as a survivor feels genuinely terrifying, and it is best to use a headset when doing so, as teamwork becomes extremely important to your well-being.

The maps available in the beta are Airport and Museum. Don't let the names fool you—both maps have plenty of the outdoors to let you stretch your legs. While both are covered with lush greenery, Airport looks more colourful owing to the generally brighter lighting. Museum is almost like fighting in a swamp around some treehouses. Both maps make excellent use of elevation and have a couple of chokepoints ideal for epic gunfights.

Like every other multiplayer shooter these days, Crysis 3 has a leveling and loadout system. The game starts you off with four pre-set loadouts—Assault, Scout, Sniper and Heavy. You level up by gaining XP, which is done by achieving the objective or killing or assisting in killing. Getting up to Level 4 gives you the ability to make up to five of your own custom loadouts.

You can equip your character with a main weapon (typically an assault rifle or a machine gun of some description), a secondary weapon (a pistol or a revolver) and a bunch of suit modules. You can also customise your weapons with stuff like new sights, a foregrip for better accuracy, or other modules. You also get armour modules that give you bonuses like increased cloaking speed. Speaking of armour modules, the nanosuit makes a comeback and has been executed beautifully. Among other things, you can sprint, lift heavy weapons and cloak. The nanosuit is mostly what turns a very generic FPS with slight sci-fi elements into a fun and chaotic battlefield.

The gunplay of the game feels great. Action is fast with superpowered people jumping all over the place and using weird alien weaponry. The maps aren't as tight and packed as you would find in Call of Duty. Instead, the designers have opted for a much more open map, making use of the CryENGINE's well-known capabilities. Don't expect a map on the scale of Battlefield or Arma, though.

With all the good out of the way, we'll move on to the parts of the game that don't seem so well executed. The netcode of the game seems to need more work. Even though matches are quick to get into and the games load up fast, there are still some network problems like lags or disconnects. However, considering the build I played was still a beta, the final release may be much better with regards to stability.

Another major problem I had is one that is unlikely to be solved. While it's fine to have guns locked away with a level-requirement, Crytek has made weapon attachments unlockable, just like some other developers. While it makes sense to lock something that can potentially make your weapon more powerful, like a new barrel that boosts damage, a lot of the unlockables are things like sights.

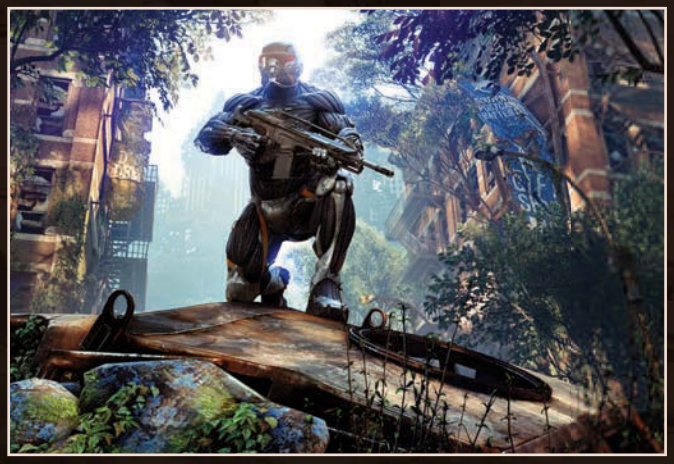
> "Hunter mode is undoubtedly one of the best things about Crysis 3's multiplayer."

Which sight to use on your gun always comes down to personal preference. While some prefer reflex red dot sights, others prefer scopes, and some even prefer to play without sights. It comes off as strange and sometimes infuriating when you can't use the scope you want because you need to level the weapon up by killing more enemies. This is more of an issue with current multiplayer FPS games in general than a one off instance, so I guess we can't blame Crytek for it.

Other issues with the game are typical beta-related things, but we hope that Crytek fixes these. Things like falling off the texture (where you step through the cracks between the game's textures and the wiremesh and fall into an infinite abyss) while playing is very annoying, especially since you don't die and there's no suicide option, and the only option left to you is to quit the match and look for another one.

All in all, Crysis 3 seems to be coming along nicely. The multiplayer is fast-paced, weapons are fun to use, and the maps are open and give you multiple ways to get from one point to another. The latest iteration of the CryENGINE crafts some truly stunning environments, even if the only things you can explore right now are two maps.

Although not the main focus of the game, Crytek has definitely done multiplayer right. While unlocking the weapon mods could've been done better, and it'd be great to see more games adopting the Pick 10 system from Call of Duty: Black Ops II, Crysis 3's multiplayer is shaping up very nicely.







Maximum Insight

BY NACHIKET MHATRE

After arguably diluting eye candy and gameplay to appease the console crowd with Crysis 2, the formerly PC-exclusive franchise has returned with its third iteration and has tremendous expectations riding on it. We chatted up Michael Read, Producer for Crysis 3 and discussed how the game balances its console and PC leanings and what it takes from its predecessor in terms of console development.

How much of a revamp is the CryENGINE 3 over its predecessor?

The engine is advanced in a lot of ways. When I talk about CryENGINE 3, I always roll back to talking about Crysis 2 specifically and how we developed the CryENGINE 2 and the game. Any time you do that in the course of development, there are massive challenges and barriers. There are major technical challenges and making something work involves major design challenges regarding what you want to achieve and how. The biggest challenge was how to take this engine and make it work on consoles. In addition to that, we weren't experienced with consoles at all, so we had to figure out how to build a game on consoles [laughs]... How to build an engine that runs on consoles, and then do everything that we want it to do.

Moving on to CryENGINE 3, well we took a lot we learned from Crysis 2, a lot of what we learned about console development, and that helped us to structure very early on how we would be developing Crysis 3. In tandem with that, as we were building the game over the past two years, the engine has become increasingly licensed in markets such as architecture, films, and various streams we were starting to experiment in. We learned a lot about the tools in the engine, and these are things that we don't traditionally show [laughs]. Putting those in a tech demo video doesn't work because people don't really get it. We have done a number of talks about some of

"In Crysis 3 you can transition between the controller and keyboard/ mouse, and that's not going to change the way the AI reacts."

– Michael Read
Producer, Crysis 3



the tools and the real-time stuff we have added in terms of lighting, grass technology, AI, mesh, drop shadows and things like that. In addition, we have also developed a series of new technologies in the engine using some of today's top-end PC hardware. In effect, our workflow with the CryENGINE 3 was a lot more refined than it was with CryENGINE 2. Now we are familiar with how multi-platform development really works.

Speaking of multi-platform development, the original Crysis had a sort of open-world flair to its maps, whereas Crysis 2 was quite linear. One reason that gets thrown around a lot is the fact that console hardware limitations were responsible for this scaling down.

No, I don't think that really was the case at all. New York City was chosen very early in the pre-production stage. And one thing I don't like to do is refer to Crysis 1 as open world. When I think of open world, I think of something like a Grand Theft Auto or Just Cause or that sort of game. We can really pop into something and go anywhere and go anyplace. When we talk about Crysis 1 and how open it was, I think there are two things at play here. One of them was the maps. The maps were definitely a lot wider and spread out. So when you came up on a vista you could see a quite a lot of distance with mountains and trees and villages and water, and all of these things. You were able to go around a lot of these places, but there really wasn't a lot of vertical movement inside the area available. Secondly, when you add things such as vegetation, it's amazing how that can psychologically make things seem larger even in a limited environment.

So coming to Crysis 2, we were dealing with an urban environment, an urban grid that defines the New York City. People really didn't have that visual reference, but there really was a lot more vertical space that people could play in. I think there were two things at play here. There is definitely a lot of merit in Crysis 1 and things that we did right, and I think there were a lot of things we did right with Crysis 2. That's all we wanted to come back with Crysis 3—look at those two elements and combine them together. We are not going back to the jungle environment; we are also mixing those environments, balancing out the gameplay and raising the bar on pretty much everything we have been doing in Crysis 3—from the graphics to the gameplay to the cinematics, and all of these things combined.

Crysis 3 will be the second title developed for the consoles. What have you learned with Crysis 2 that will make the upcoming game better on consoles?

We actually did Crysis on the consoles later on. We mainly did that because we wanted to see if we could do it [laughs]. That's really what it was. Another reason was because it's really disheartening when you bring a franchise to another platform and they don't have access to the original, so we wanted to come back to that, and also to teach ourselves how to do proper coding, and if we were able to port a game properly, which we did. So in terms of bringing the game to consoles again, we did it mainly for the gameplay experience. We didn't want to skew the gameplay, we wanted to create a smooth, seamless experience.

When I pick up the controller, I can play the game like I do on the PC [with a keyboard and mouse]. Whereas, when I pick the keyboard it is going to feel like I'm playing a console game as well. I think we have hit a good balance between those two platforms—that's something, you know, I don't think we achieved properly with Crysis 2. So when you play this game, you can play it like a twitch game, or you can play it slowly with a mouse and a keyboard. Or you could simply just pick up a controller and seamlessly go back and forth [between those play styles]. It's really about maintaining the gameplay across the board and being able to cater to both types of input platforms.







Many years ago Microsoft had actually pit PC gamers against console gamers...

This is a good one [laughs]. I'm sorry, but were you referring to Shadowrun? I think it's Shadowrun that allowed this.

Yes, that's correct. So basically it was concluded that the gamepad doesn't really match up to the keyboard/mouse combo and the whole idea of cross-platform gameplay was scrapped. So while developing Crysis 3, did you dumb down the AI in the console version as compared to the PC version, in order to make up for the inferiority of the controller?

This is a good question and it's something that I have always been fascinated with for a long time. I personally cannot play FPS games with the control pad. I have a lot of problems with it. But we have a lot of guys in the office, like our level designer for instance, who don't. It makes it quite easy for him to run through levels and do certain things. We have seen people do some crazy things on controllers as well. We aren't going to hit that realm of cross-platform multiplayer they did with Shadowrun, because that's not something we are doing. We have to keep the platforms separate. If you look at CounterStrike: Global Offensive, they were originally going to do that. However, the challenges accompanying that are huge.

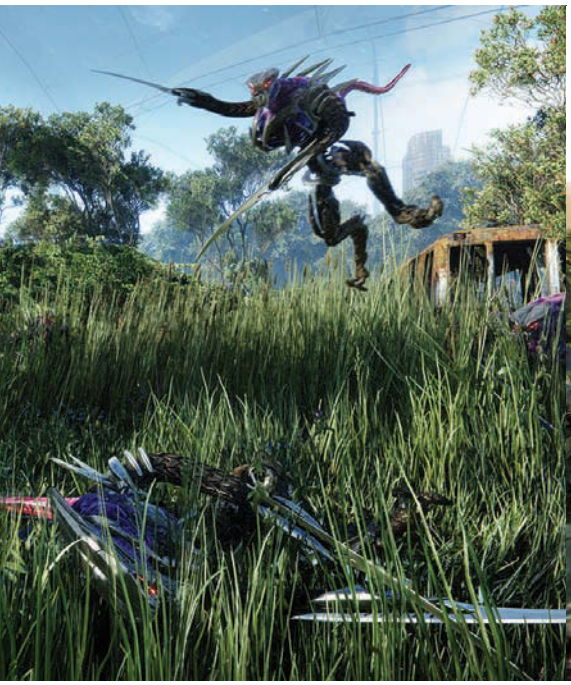
When you look back at Shadowrun, gamers with mouse and keyboard have such an advantage over those playing with controllers. You know what they ended up doing with it? They ended up tweaking and altering the mouse and keyboard side to compensate for the very stiff and robotic feel of the controller, and that's just not the right way to do it. When you mix the two platforms (PC and console), there's a clash that happens, which is something I don't know how the industry is going to respond to. In general, that's been attempted many times but it has never been achieved. So we're not actually looking at that. For Crysis 3, in terms of single and multiplayer, you can seamlessly transition between the controller and keyboard/mouse, and that's not going to change the way the AI reacts. We have added little things such as pixel tracking and auto-aim techniques that turn on and off, which is actually available with most games that allow controllers. We aim to create a seamless experience for both types of input methods and not just dump one in favour of another.

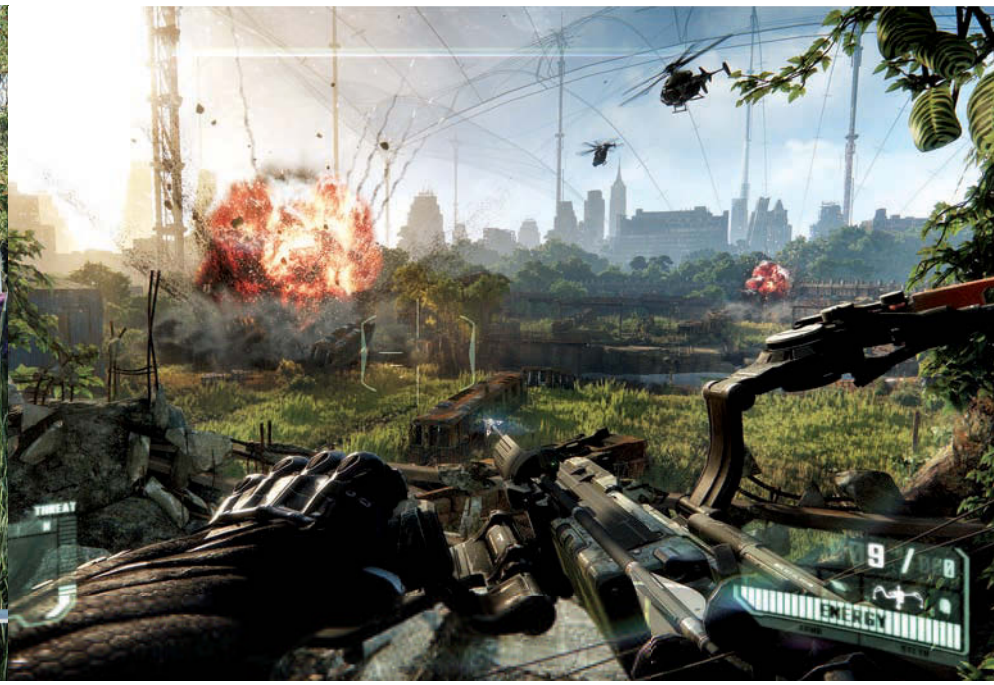
I have noticed in Crysis 2 that when you hit the regular soldier enemy types, they go into a long pain animation loop. This felt like it was done to accommodate the slower reaction times of gamers using gamepads. Will Crysis 3 include any of this?

That depends on where you've hit them and with what weapon. The AI is something we have been tweaking a lot, and I had thought we had finished with it, but then I saw an [internal] email that talked about these things. So we're still tweaking up until the time we go gold, which is going to be very soon. So in terms of the way the AI reacts to dead bodies, or certain things in proximity, or hit animations that you mention—all this is about giving the player a little bit of advantage on some of the higher levels. I mean, when you play on difficulty levels such as Super Soldier and above that, it gets really hard [laughs]. So it's definitely about maintaining gameplay balance.

Did you manage to get any interesting statistics from the telemetry data for the Multiplayer alpha?

Yeah, tons. Actually, you're the first guy to ask about it, but I only got the documents last week, and we did that about a month ago. I wish I could talk in depth about it, but I haven't actually reviewed all the material yet, because there's so much of it. But from what I have skimmed over and based on the feedback that we've received, it was pretty much positive on





pretty much every front. Even the things that were negative were things that players didn't understand or didn't figure out how to use.

The stability was good and it was more of a technical test and a test of our hardware, more than anything. Of course, we wanted to look at our gameplay statistics and telemetry data to pull that in and make changes. Throughout the course of the alpha, we were patching during that time, so we weren't just throwing a ball of code and going, "Hey, let's just let people run with it." We were patching it not only for technical issues but for gameplay as well.

If I'm not mistaken, Crysis 3 will have a combination of large open maps and linear levels. What kind of a ratio are we looking at between the two?

When we talk about the linearity of Crysis 3, we normally talk about the story in general. We don't so much talk about the action and the gameplay. The way we have structured the gameplay is that there are peaks and valleys that happen throughout, but the cinematics are very straightforward. We want to tell the story like a Hollywood movie tells it, and have the players play out the action.

But it's about opening up those action sequences, even more so than we had in Crysis 2, and leaning more towards Crysis 1 in the way the players play out the action. For example, when they come up to a vista and they tag the enemies, you may play through it once and you're going to die at some point. The next time you'll think, "Hey, that guy is going to be there," but when you actually play it, he's not there but at a different place in the map.

We have redone our AI navigation layer, which has allowed the AI to branch out. For example: when you tag and alert the enemies, you'll find them walking in different directions. Not only that but you'll also hear them communicate back and forth this time around. In terms of the maps being wide open, you'll have open spaces and tighter spaces. Even for large indoor environments, they feel very open.

Which one of these does the game prefer? The tight linear segments or the large open maps?

Definitely the more open spaces.

We all know that Prophet died at the very beginning of Crysis 2, but he seems to have returned for Crysis 3. There's a theory explaining that: Alcatraz has taken Prophet's suit after his death. Since the suit and the mortally wounded Alcatraz have a symbiotic relationship, the Prophet in Crysis 3 is more like Alcatraz's body taken over by Prophet's DNA and consciousness stored in the suit's AI. What do you think?

That could be the case... well, that's... what can I say? [laughs] Well, it is an interesting story piece, and people are, "Whoa, what happened there? This guy [Prophet] died, he put a bullet in his head, and he gave his suit to this guy. Where is Alcatraz, and how does Prophet show up again in Crysis 3?" There are many hints I have brought up many times, and that happens throughout Crysis 2.

I think the biggest hint is why Prophet killed himself to begin with. That's because he had been infected with the alien DNA at that point. Now we have the climax at the very end of Crysis 2, where Alcatraz defeats the Ceph and this big event happens. Then 20 years pass between the two games and he's [Prophet] come back and is able to use alien weapons, mainly because the alien DNA that has enhanced his suit. I think you're kind of on the right track with this. You're actually pretty close, and you have probably figured it out pretty well. But I can't go into too many details at this time [laughs], but yeah, you're on the right track with this.



DMC DEVIL MAY CRY

RATING 4/5

Devil's Advocates

BY NACHIKET MHATRE, RAM IYER, SHUNAL DOKE

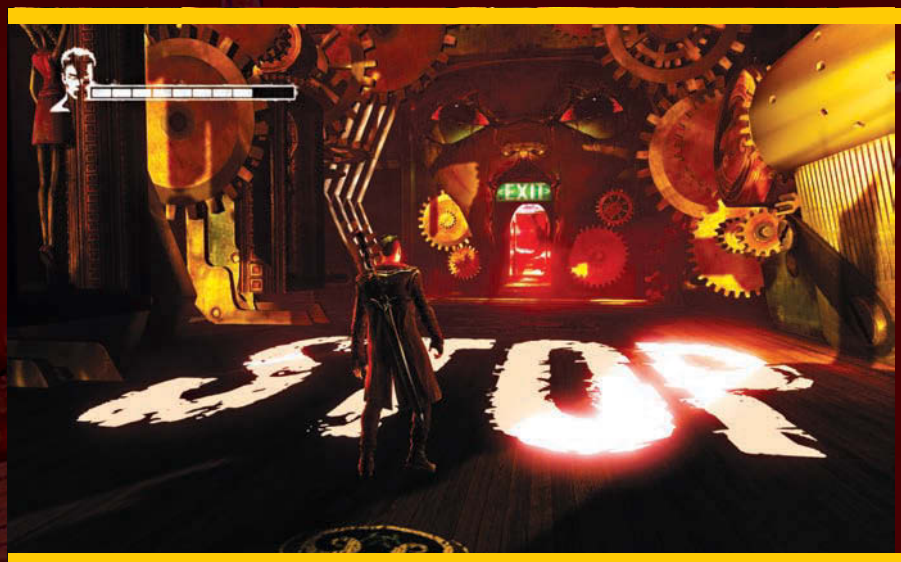
Prima facie, DmC Devil May Cry seems like a rather risky reboot. The franchise possesses a deep legacy guarded overzealously by a legion of hardcore fans. However, this doesn't stop the reboot from making massive changes not only to the canon, but to the very essence of the franchise itself. The end result, I believe, is a competent hack-and-slash game that serves as a fitting reimagining of the series. Unfortunately, old-school fans of the franchise tend to be resistant to change, which leads to much polarisation of opinions. That's exactly what happened when my colleagues and fellow DMC addicts, Nachiket and Ram, mulled over the place of reboot in the scheme of all that constitutes Devil May Cry. In case you're wondering, I'm Shunal, and what follows is an animated exchange between my belligerent colleagues about their diametrically opposite viewpoints on the reboot.

RAM: Now there's nothing wrong with being gay, but why on Earth did Capcom have to go and turn DANTE, of all people, into an emo brat? The over-the-top, Rajinikanth-esque, witty Dante all of us loved and admired now has none of his old charm and behaves like an apathetic, emo idiot. I'm not kidding! The new Westernised Dante uses bland, unoriginal expletives to taunt monsters and enemies, and has also started smoking in an attempt to look cool. The dark red jacket's been retained, as has the bastard sword, Rebellion, but that's where the similarity ends. Ninja Theory's efforts to make DMC more appealing to the masses through a westernised Dante has more or less alienated the franchise's older fan base.

NACHIKET: Where do I even begin?! For starters, allow me to clarify that although I love DMC3 as much as you do, there's a fundamental difference in the way we see the new game. While I approach the reboot with an open mind, your better judgement has been blinkered by a thick veil of prejudice and fanboyism. It doesn't take a genius to realise that the negative pre-release perception was primarily attributed to fans who were apprehensive or just resistant to change. However, the game has clearly proven its mettle where it matters the most.

Dante isn't remotely gay. In reality, the rumour precipitated from a pre-release trailer that was taken in the wrong context. His heterosexuality should be undeniable within the first five minutes of the game, especially when his impending threesome with a pair of smoking-hot ladies is cut short by the hunter demon. That is unless you use the homosexual reference

Jagdish Limbachiya





figuratively to ridicule the darker, more emotional aspects of the reboot. If that is the case, you have sorely missed the point of the reboot.

RAM: Oh come on! I wasn't referring to the emotional fluff; Dante has turned metrosexual, and well, LOOKS gay. And if you find animated pixels hot, you need a life! Now the reboot's Orwellian plot seems to hold some depth at first glance, but it's quite linear and predictable—the antagonist Mundus has taken away poor lil' Dante's parents (Sparda, a demon and Eva, an angel) and controls most of the world through a huge corporation. Naturally, Mundus is after your life and Kat and Vergil find you to help with their rebellion. Frankly, the plot is quite ridiculous, but that's nothing new for this series. The characters don't have much to remember them by either. Dante's way less awesome and could learn some sarcasm, Vergil's too cold and distant to remember, Mundus is pretty predictable as the stereotypical villain, and the lead female (Kat) is a witch with daddy issues.

NACHIKET: The franchise had hitherto painted Dante as an entertaining caricature of your typical anime-inspired video game badass. However, the reboot has simply taken a more mature route to the storytelling that's seated deeper in the realm of conventional logic. The anti-hero from the previous games makes way for a brash, anti-authoritarian Dante who's more interested in going about his hedonistic and rebellious lifestyle than ridding mankind of the demonic scourge.

The Rajinikanth-esque flair of the series has been replaced with a setting that deftly imbues the modern and the arcane in a plausible manner. The DmC reboot is quite like John Carpenter's They Live, albeit with demons instead of aliens hiding in society and controlling humanity through the economy, government and media. This is a great way of reimagining the franchise instead of treading along the same boring path to deliver DMC5.

I like the way Ninja Theory has turned the "excuse plot" of the franchise into a biblical battle between good and evil—all of which doubles as a clever allegory to the modern-day evils of censorship, political excesses, herd mentality and corporate greed. I mean, if your judgement hasn't been clouded by your fanboyism, you could have seen where I was coming from.

RAM: Again with the fanboy thing! Have you ever played God of War? If you haven't, well it's a simple, hack-and-slash title where you just have to mash a couple of combos and evade attacks to get through the game. Yeah, I admit it had a good plot and looked nice, but what about the gameplay? It takes barely any skill to destroy the unintelligent monsters the game incessantly throws at you, and there's barely any depth to the battle system. And that's quite a lot what DmC: Devil May Cry feels like: a new God of War with the style system from the original DMC quadrilogy, guns, a Westernised plot and a gay Dante.

NACHIKET: Enough with the gay refrain; you're flogging a dead horse here! Let's not forget the fact that DMC released way before God of War (GOW). While the whole DMC franchise—reboot included—may look like a GOW clone to most casual gamers, let's just say that the DmC reboot is meant for GOW players who have outgrown their diapers. Make no mistake; I thoroughly enjoy the GOW games, but comparing them to DmC is a travesty. In the former, everyone can mash a few buttons and become Kratos, but do the same in the reboot and you'll get your butt handed to you.

RAM: Exactly my point! DmC Devil May Cry is disappointingly easy. In a bid to make the game more accessible, Ninja Theory has turned down the difficulty to the point that you rarely die in battle on the default difficulty mode. More importantly, the previous games were DIFFICULT. You had to work hard to even survive in the initial levels, especially in DMC3. The learning curve was steep, but

GAME INFO

ACTION

DmC Devil May Cry

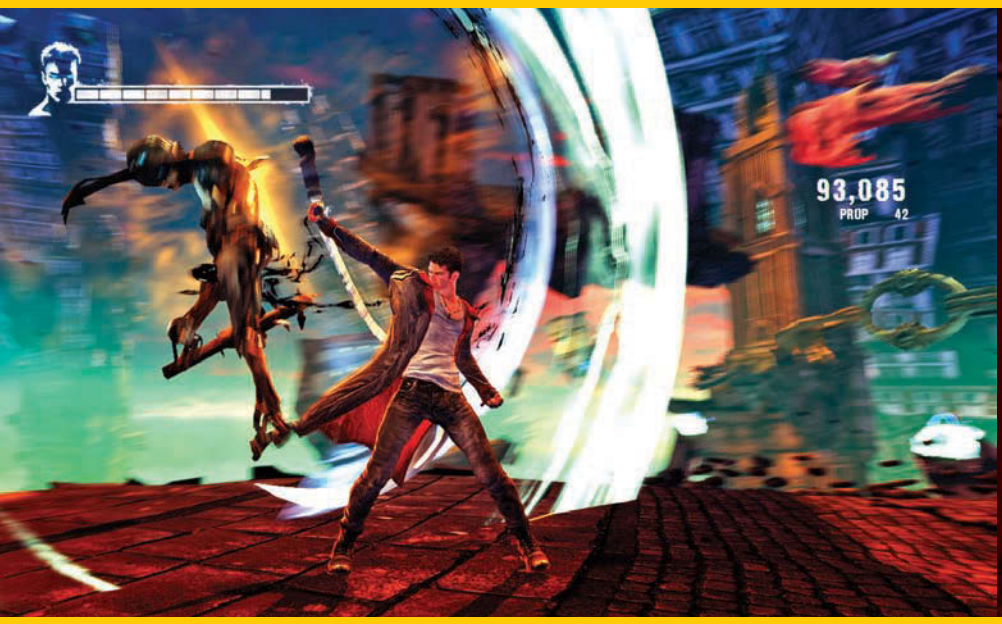
PRICE	Rs 2,999
PUBLISHER	Capcom
DEVELOPER	Ninja Theory
DISTRIBUTOR	Milestone Interactive
PLATFORMS	PC, Xbox 360, PS3 (Tested)

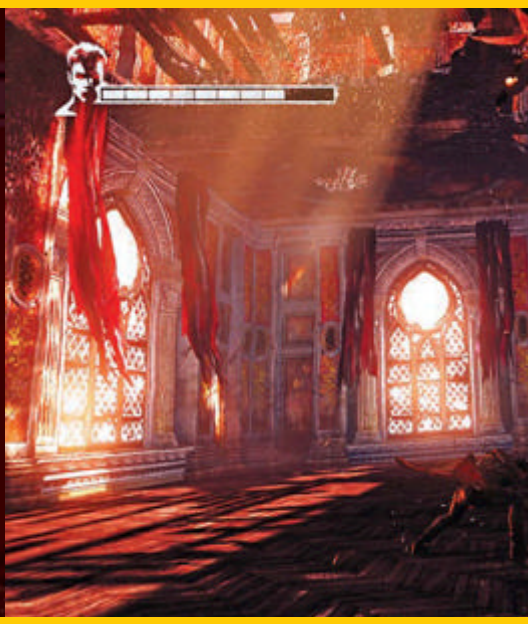
FOR

Innovative; excellent level design; psychedelic art; deep combat; fluid animation; great voice acting and motion graphics.

AGAINST

A bit easy; Kat has a one-dimensional character; no lock-on; low skill ceiling.





once you got the hang of it, the gameplay was fun and never got boring. This made for good replay value as you could always do a combo better or master another style, which is invaluable in a hack-and-slash game. The higher difficulty modes in the reboot, which are unlocked once you complete the game, help make things a little better, but it would have been great if the game was a little challenging. The end result is a game that doesn't make you want to replay it unless you're a completionist and want to complete every one of the secret missions.

NACHIKET: I won't deny the fact that DMC3 was exquisitely difficult, and that it was the rare instance when a mainstream game had the pluck and gumption to incorporate the level of challenge and gameplay depth usually found in a masocore indie game. Unfortunately, that only makes sense if you plan to target a niche. However, when you spend tens of millions on producing a AAA title, it's fair to expect the developer to make the entry point more welcoming to a wider gaming audience that isn't as twitch-endowed as its hardcore brethren.

Even if you really seek the same challenge as DMC3, the reboot's higher difficulty indeed delivers the familiar brutality and unforgiving difficulty that a hardened fan may crave. What's more, it even does that without making the game inaccessible to the average gamer. Therefore, I humbly submit that you seem butthurt by the fact that this is no longer the game that keeps out the majority just so that you can revel in your 1337ness. Face it: you only hate the reboot because it's no longer a prerogative of the privileged few. And, of course, because you're a sodding fanboy too.

RAM: What the [expletive redacted] man?! You just don't get it, do you? The difficulty and complexity are what make up the entire DMC experience! It makes you want to improve yourself and do things better. But we don't have that here. Even the boss battles are easy, and you won't die more than once per battle. I particularly missed the bosses from the older games, as the sheer satisfaction and relief of defeating one was enough to make you feel like you'd just received a raise. However, the new one's bosses come and go without you barely noticing them. All I found interesting was the boss levels' design.

NACHIKET: When has frustratingly difficult boss encounters been a sole benchmark for excellence? What matters the most is the sheer imagination, scope, and set pieces involved in these boss fights. Why do you need to humour your masochistic tendencies when you have crazy, over-the-top villains taking you on in genuinely inspired fight sequences?

Brilliant encounters such as the battle with the wacked-out boss Bob Barbas showcases the game's creativity in capturing the media mogul's web of deceit and misinformation in a psychedelic digital arena replete with a faux live TV feed parodying the sensationalist news channels of the world. Then you have the encounter with Lilith, where music becomes an integral part of the boss segment, even as it has a profound bearing on the gameplay and level design. While the reboot lacks in unreasonably difficult bosses, is made up with superlative creativity and design. I believe that's the best kind of trade-off one could ask for. Unless, of course, you happen to be a fanboy.

RAM: Yeah, yeah. Go on. Insult me. But you know I'm right. Even if you ignore the emo looks, lame japes and the linear plot, the core of the DmC experience, the gameplay, just isn't as great as it could have been. To put it bluntly, the reboot's gameplay isn't much more than a mixed soup of the original franchise's gameplay elements. It brings nothing new to the table except a new way to switch equipped weapons and the two styles during combat, besides the angel and demon push/pull mechanic. The platforming segments are good, but there are too many of them. Also, there's a surprising lack of puzzles, which are replaced by quite a lot of secret missions. The melee combat is good, but the ranged weapons are a disappointment. Frankly, the guns are useless and you find no reason to use them, except to lengthen your combos.

NACHIKET: What was that again, fanboy? I strongly disagree with you painting the lack of puzzles in the reboot in a negative light. I believe Ninja Theory essentially fixed the most annoying aspect of DMC3 by eschewing tedious puzzles altogether. These wanton monotonous interludes only served to break the pacing of what's essentially a fast-paced hack-and-slash button masher. The inclusion of secret missions, on the other





hand, is a great nod to the original franchise's masocore roots with deviously difficult challenges. Since these secret missions are optional, they don't impose upon the reflex-impaired gamers among us. For someone who bitches about the lack of difficulty, it's rich of you to complain about the sublime difficulty of these challenges.

I also don't understand why it's such a bad idea to borrow the best elements from the previous games. I mean, this is a reboot of the same franchise, so you might as well turn it into a "Best of" compilation of sorts by cherry-picking the most loved gameplay and design elements from the entire series.

More importantly, it's severely myopic of you to say that the reboot has no gameplay innovation. In my humble opinion, the angel and demon weapon class bifurcation is a radically game-changing addition. This adds a whole new gameplay dimension by classifying weapons as those imbued with either strong but slow demonic or fast but weaker angelic attacks assigned to either of the index triggers. This angel and demon business isn't just cosmetic: these powers must be chosen to tackle the appropriate enemy type, thereby bringing an additional layer of strategy to the mix. Slower, heavier demonic weapons such as the Arbiter axe or the Eryx gauntlets are crucial to break open enemy armour, whereas the faster angelic weapons are required when speed and reach is more important. Certain elemental enemies use ice and fire against you, which in turn can only be defeated by using angelic and demonic powers, respectively. DmC also borrows grappling elements from the last game, with the angelic grapple launching you towards enemies, whereas the demonic one tends to pull enemies towards you, and is also instrumental in stunning or stripping foes of their shields.

> "Ninja Theory would've been better off by ditching the Devil May Cry moniker altogether."

RAM: Call me a fanboy again!

NACHIKET: Fan...

This is when I begged Ram to put the fire hydrant down.

Wow. That was entertaining. While both of these FANBOYS have raised some great points, none hit the spot. As a long time fan of the series, though, I say the new DmC is a great game that falls short. Ninja Theory would have been much better off by ditching the Devil May Cry moniker and making this a completely new IP. The new Dante is a rather bad shadow of the older one, and while the levels and visual design are great, the boss fights do end up rather lacking. Every single boss ends up feeling like a cakewalk, even on the higher difficulties. The fighting system, while great, ends up being hamstrung by the inclusion of Angel/Demon affinity enemies. A game like DmC should be all about letting you go wild with whatever combos you may like, and when enemies like those pop up, all they do is force you to use only two out of the total five melee weapons you have. The weapon design feels downright uninspired too, especially compared to DMC3. Weapons either fit the mould of being fast but low on damage, or slow but high on damage. What happened to weapons like Nevan or Cerberus from DMC3? I also liked how the Devil Trigger in this game is so useless and unnoticeable that either of these idiots forgot to mention it.

By no means is DmC a bad game. It just fails to live up to the expectations that come with the Devil May Cry name. The game does many things right and the higher difficulties do prove that, but some things end up feeling out of place. The Mundus fight, for instance, feels a lot like it came straight out of a God of War game, minus the spectacle. But there was no way Capcom could make everyone happy. Old-school fans would end up feeling alienated no matter what, and we have to admit the old Dante's time has passed. For better or worse, we only have this new Dante. He takes a little getting used to, but the game ends on a great note, and I'll be looking forward to Ninja Theory's next.

ZONE OF THE ENDERS HD COLLECTION

Back in the Zone

BY SHUNAL DOKE

RATING 4/5



The market for games involving giant robots has been primarily dominated by Western developers with games like Mech Warrior and Hawken. This isn't to say that there haven't been any mech-based games from studios in the Eastern part of the world, as I'm sure you'll find tons of Gundam tie-in games to prove me wrong. These games, nevertheless, weren't all that good.

But along came Hideo Kojima, who wanted to try making a game that didn't have the words 'Metal' and 'Gear' in the title. He made Zone of the Enders one of the launch titles for the PS2, and while the game did see some modicum of success, it really wasn't all that famous. It did manage to get a cult following, however, and Kojima was happy enough to give us a sequel, and so we got Zone of the Enders: The 2nd Runner. It's now been 12 years since the first game, and 10 years since the second, and to get some people excited over the in-development Zone of the Enders 3, Konami has released the Zone of the Enders HD Collection.

Controlling the main star of the game, Jehuty, may seem daunting at first, but once you get used to it, it's a breeze just blitzing between enemies as you hack them up, or getting some distance between you and a bigger target so you can unleash a big Spirit Bomb-style attack on them. Analogue sticks control the mech and camera, while the elevation is controlled by the trigger buttons. All the attacks are controlled by the face buttons, which include shooting, hacking, slashing and grabbing for throw attacks.

The first game was no more than an experiment back in the day, and it's apparent now more than ever. The game's writing could have been better and some elements of its gameplay could do with some rethinking. And the enormous amounts of terrible the voice acting brings can never be forgotten.

The plot of the first game involves a boy named Leo Stenbuck—a colonist from the Antilia colony near Jupiter. The colony faces an attack from BAHRAM forces, and as anime and anime-inspired things generally go, Leo ends up piloting a mecha, which are referred to in this universe as Orbital Frames. But this mecha, named Jehuty, is special (of course). Leo uses Jehuty and its built-in AI A.D.A. to fight off BAHRAM, who are under orders from their enigmatic leader Nohman to capture the mecha. Leo's main aim is to rescue civilians, get more power-ups for Jehuty and make it to the other side of Jupiter without letting the bad guys get their hands on the frame.

The story feels a lot like it's a filler amongst an epic storyline that's happening in the background, and basically ends up being an excuse to let you fight using an awesome mech. The





controls are easy to get used to and make you look extremely awesome. The game does suffer large problems with repetition, though, as the only different thing you do is fight a couple of bosses here and there. It isn't difficult to see why the game wasn't that much of a commercial hit back in the day, but we sure are lucky that it made some money, because that gave Kojima an excuse to give us 2nd Runner, which also comes in the HD collection.

2nd Runner is an improvement over the first game in every way. The story is much more engaging and doesn't face any problems with its pacing. The gameplay is more fun thanks to the controls being more responsive, and the bad voice acting is replaced by cool cutscenes with mediocre voice acting.

The second game doesn't have Leo and instead gives us a new pilot for Jehuty—Dingo Egret. Dingo comes across Jehuty while working at a mining facility in Callisto. He is then attacked by BAHRAM and their leader. Out of desperation, Dingo gets into Jehuty to fight them off and after a series of unfortunate events, ends up mortally wounded. Dingo then gets plugged into Jehuty, which acts as a life-support system for him, and thus continues the saga of getting Jehuty to Mars.

This time around, the game has completely embraced its anime roots. The level of escalation in this game rivals that of some of the craziest anime ever. Some of the fights are so epic that you'd be forgiven for forgetting you aren't watching an episode of Tengen Toppa Gurren Lagann.

2nd Runner also has much better graphics, thanks in no small amount to using what looks like the same—if not similar—graphical engine as that of Metal Gear Solid 2: Sons of Liberty. This is even more apparent if you look at the mecha in this game and any Metal Gear from MGS2. The cutscenes are either in-engine, or are depicted in a beautiful 2D anime art style.

Both games walk a fine line between being third-person shooters and hack-and-slash games. Switching between the two modes is automatic, and depends on the distance between you and your target, with the attack button for both modes being the same. Shooting generally entails strafing, and you can strafe in any direction you like. Jehuty also has a burst mode that lets you dash in any direction, including right into your enemies' faces, where you can then either pummel them to the ground or throw them to other enemies to make big explosions.

Konami has done a great job on this HD re-release, much like its previous attempt—the Metal Gear Solid HD Collection. The game runs at a solid 50-60 fps, which helps the action look smooth and fast, but I did notice a frame rate drop in one particular encounter. However, every other fight in the collection worked fine, despite a large number of enemies on the battlefield. If nothing else, you can always pretend that you're Neo from the Matrix movies for that one fight. Both the games look beautiful with the higher resolution textures and widescreen support. If you played the terrible HD remake of the older Silent Hill games, don't let that keep you away from this great release. With this release, Konami is building a solid track record of HD Collections.

If you were a fan of the games from back in their heydays, there's no doubt that you already own a copy of the HD collection. For those that don't, I say give this game a try. It might surprise you. Don't let your distaste for anime get in the way of experiencing what will probably be a once-in-a-generation experience. Despite the cheesy voice acting and the sometimes-incomprehensible plot, the Zone of the Enders will manage to be a great addition to anyone's library.

GAME INFO

ACTION

Zone of the Enders HD Collection

PRICE	Rs 1,999
PUBLISHER	Konami
DEVELOPER	Zone of the Enders HD Collection
DISTRIBUTOR	Origin Games
PLATFORM	Xbox 360, PS3 (Tested)

FOR

Giant Robots; amazing visual direction; fast-paced gameplay.

AGAINST

Voice acting; the first game.

"The level of escalation in this game rivals that of some of the craziest anime ever."



RATING 3/5

NEED FOR SPEED: MOST WANTED

Not the Most Wanted

BY SHUNAL DOKE

Mobile is a platform that seems to be strangely suited to racing games. That's not to say that racing games lack depth or anything—on the contrary, racing games offer some of the deepest and most compelling gameplay experiences of all other genres. No, what I meant to say was that racing games are oddly suited to quick 1-2 minute play sessions, which is quite good for playing games on portable devices like smartphones and tablets. But this is exactly where Need For Speed: Most Wanted botches it up.

Make no mistake, this is a great game. NFS:MW boasts great production values right off the bat. The menus are slick and the animations are fluid. The game simply throws you into your first race when you first start it, without any menus getting in the way. The first race is also where the game introduces you to the controls. After this race, you're free to pick events and after a couple of races, you're allowed to equip your car with mods that give you different bonuses.

THE WORLD'S SMALLEST STEERING WHEEL

When it comes to controlling your car, you get two options. You can either go for the traditional accelerometer-based control scheme, or opt for an on-screen steering wheel. It is worth noting that this is the first mobile Need for Speed game that lets you use an on-screen steering wheel.

The accelerometer control scheme is responsive and detects your tilts and turns easily. You even get a sensitivity slider to fine-tune how well you want your device to pick up your movements. The on-screen control scheme, however, isn't pulled off that well. Instead of opting for an Asphalt-like option that lets you tap on either side of the screen to make turns, the game gives you a tiny steering wheel on the left side of the screen. The wheel feels awkward and it's easy to get it mixed up with the brakes, depending on where you touch the screen.

You can drift your car by touching and holding the right side of the screen while turning. Drifting is one of the most important skills to master in the game: the races tend to have many sharp turns and drifting is one of the easiest ways to fill up your nitrous bar. You can activate nitrous by flicking upwards on the screen, but there doesn't seem to be any way to deactivate it. This means that when you make that flick, you're going to keep going at high speeds until your nitrous bar runs out. The brake/reverse is activated by touching/holding on the left side of the screen.

The nitrous bar fills up very easily, and the game gives you a visual cue to let you know that the bar is full. The bar can be filled through a Burnout-esque risk-reward method too. Doing risky things gets you higher amounts

GAME INFO

RACING

Need for Speed: Most Wanted

PRICE	Rs 265
PUBLISHER	EA
DEVELOPER	EA
PLATFORMS	iOS, Android (Tested)

FOR

Good graphics; tight controls.

AGAINST

No multiplayer; long load times.

Jagdish Limbachiya





of nitrous. Risky maneuvers include pulling off near-misses, drifting like a maniac, and taking down competing vehicles and cop cars. A funny way to go about it is to activate nitrous and take cars down while still cruising at high speeds. This gives you what essentially amounts to infinite nitrous until you can't find any opponents to take down.

FAIRHAVEN IS A LONELY CITY

The only opponent you get in the game is the AI. Curiously, EA decided to forego multiplayer for NFS:MW, which gives its biggest competitor, Asphalt 7: Heat, a major advantage. Instead of multiplayer, EA has opted for a scoring system. Much like Criterion's recent Need for Speed game, you are awarded Speed Points. These Speed Points decide your ranking on the titular Most Wanted list. Your main aim in the game is to reach number one on the list. EA has decided to integrate Origin with Most Wanted, which shows your friends on the Most Wanted list as well. This is a clever way to integrate high-scores into a game, but a couple of multiplayer modes would've been better.

One of the biggest ways the mobile version of Need for Speed: Most Wanted differs from its sibling on other platforms is that the main multi-platform version decided to forego currency, and instead lets you unlock vehicles by finding them and unlock car mods by racing for them. In the mobile version, you have to win races to get money, which you can use to buy vehicles and mods.

The developer's execution of vehicle mods in this game is disappointing. Instead of letting you get permanent upgrades for your car, mods work like temporary bonuses. You get to equip your car with up to two mods before every race. These mods bequeath different bonuses on your car, and the better the bonus, the more expensive the mod. There is quite some variety in the mods, though. For instance, some mods decrease the weight of your car for faster acceleration while others give your car a heavier body, which lets you take down other cars more easily.

A LOT OF BAD CALLS

The AI is good, but sometimes it seems too, well, artificial. The other cars rarely make any mistakes, and once you screw up, getting back in the lead is very difficult. The cops are similar, and they seem to be able to catch up with your completely decked-out exotic car very easily in their regular police cars. The AI seemingly has the cops in its purse too, as the long arm of the law harasses only you while the other cars speed off.

The incredibly long loading times are another major problem. To be fair, this is understandable considering the visual fidelity the game is trying to pump out from smartphones and tablets. However, it is borderline unbearable: starting the game takes a century while races take decades. Deciding to play the game when you have only a couple of minutes to spare is a bad idea, as half that time will be eaten up by the loading screens. For some inexplicable reason, the game reloads the graphics assets even if you so much as lock your device or get a call. You have to restart races and events every time you get a call mid-race, which is very frustrating.

Wrapping things up, the iOS and Android versions of Need for Speed: Most Wanted are decent games in their own right, but come with their flaws. The game is definitely fun, and there are a lot of racing events to take part in, but some of the problems sometimes overshadow the goodness of it and leave you frustrated. Long loading times, lack of multiplayer and unnecessarily badass cops turn what could've possibly been one of the best mobile racing games ever into a better-than-average mobile racing game.



TEMPLE RUN 2

Running for the Lazy

BY **SHAYNE RANA**

RATING 4/5

Temple Run was a pioneer in running games for mobile and sparked a new era in the industry. Disney and Imangi even launched a special edition of the game called Temple Run Brave. The idea was the same, but they threw in a few more challenges.

Temple Run 2 brings a fresh look and tries to keep things as entertaining as the first edition. Sticking to the genre's principle, Temple Run 2 once again sees an intrepid explorer scurrying from a cave, being chased by some sort of demonic ape. The game starts off at an easy pace and picks up speed the farther you run. You can collect coins and power-ups as you run, slide, jump and rail down tunnels to avoid a host of obstacles in your path. Trip and the big bad ape will be hot on your heels. Using the accelerometer, you can dodge obstacles by tilting your device to the left or right. Swipe gestures are still one of the key factors, as is collecting gold coins.

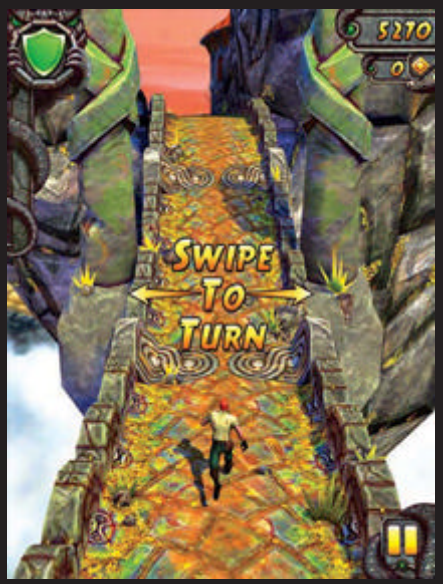
What makes this version so much more entertaining, even if it is essentially the same as the ones before, is the new environment. The swamp locale has now given way to a more picturesque mountain path. You'll need to slide down ropes, jump across streams, broken wooden bridges, over temple ruins and even over spiked booby traps. You'll also need to slide under ruins and fire traps. There's also a new, interesting part— mine shafts.

Mine shafts have you riding along a track in a beaten down mine cart. You'll need to duck and lean to collect coins or avoid obstacles. Unlike other games, you'll also need to swipe left or right down the right track. The wrong turn could lead you smack into a closed shaft.

You can resurrect yourself at least once without needing to buy or upgrade some factor for your character. Upgrades are available for boosting the time limit on various options, like attracting coins or gaining protective shields, speed boosts, etc. With 10,000 coins, you can even choose a new character to run.







The more you progress, as you may already know, the faster your pace gets. This is when things tend to get really tricky. There are a few instances where the road looks like it goes on straight ahead, but you need to swipe left or right—and since the game is quite unpredictable, you can't really tell if you have to jump, slide or turn. This is possibly one of the more challenging parts of the game, especially if you've progressed far into the game and are running around at break-neck speed.

THE BOTTOM LINE

All in all, Temple Run 2 is a well-designed game. The new location adds fresh appeal to an existing franchise that was already entreating to begin with. We found no issues with control when we tested it on the iPad 2 and Galaxy Nexus devices. The game worked great and was very responsive on both platforms. The best part is, it's free for both Android and iOS. If you're into the mobile running games genre and were already hooked on Temple Run, the second iteration will only make things better. We're quite looking forward to part 3 (fingers crossed).

GAME INFO

RUNNING

Temple Run 2

PRICE	Freeware
MANUFACTURER	Imangi

FOR

Immersive environment; smooth handling; new levels.

AGAINST

A bit laggy on some lower end devices.

Jagdish Limbachiya

Network 18



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MICROSOFT ILLUMIROOM

A Gimmick or Paradigm Shift in Home Entertainment?

BY **NACHIKET MHATRE**

Back in 2011, Sony showcased a series of spectacular videos of a humble living room transformed into a digital canvas brought to life with augmented reality. The mind-bending visual imagery showcased in the videos was achieved by projecting moving images onto every surface in the room using strategically-placed projectors. Earlier this month, Microsoft showcased a similar augmented reality (AR) take on gaming at CES 2013, where regular Xbox games leapt from the confines of the TV set and onto the surrounding walls.

Called IllumiRoom, this Microsoft Research project leverages the Kinect motion sensor to make the system hassle-free enough to be considered feasible for deployment at the consumer end. Make no mistake, this hasn't in any way been hinted at as an upcoming product. Microsoft has termed it a proof-of-concept at the moment. Although it may look almost dubiously similar to PlayStation's aforementioned AR room-projection videos, it would be wise to hold your horses before you start forming up to flame Microsoft for ripping off Sony.



Getting video game developers accustomed to a whole new API won't be easy.



Kinect takes the tedium and difficulty out of making the setup work.

MORE ITERATIVE THAN INNOVATIVE

What these companies have showcased isn't exactly groundbreaking proprietary technology. If that were the case, we would have heard of a lawsuit or ten by now. In reality, the Xbox maker has merely put forth a concept co-opting a lesser-known commercial technology to your living room. Prior to being given a fancy name, this technique was known as 3D projection mapping. In fact, this expensive version of smoke and mirrors has been extensively used for outdoor marketing campaigns, where entire buildings and large outdoor structures are brought to life thanks to some clever projection wizardry.

Despite the tech being more iterative than innovative, you still can't take any credit away from Microsoft. The fundamental difference between IllumiRoom and similar indoor prototypes or outdoor advertising solutions is that the former seems to be a lot more sophisticated, adaptable and simplified means to enjoy 3D projection mapping in your living room. This is largely due to the Kinect sensor's ability to spatially analyse a room in true 3D, which allows it to feed the projector with the requisite data to create a convincing AR illusion.

While earlier implementations have ranged from advertising applications to gimmicky videos, Microsoft's endeavour to integrate the concept with Xbox and Kinect should make IllumiRoom viable enough to justify mass production and deployment if it ever chooses to proceed with full-scale deployment. This is especially true because regular 3D projection mapping solutions are unsuitable to your average tech consumer, as the setup requires skill and technical knowhow beyond the ken of a layman. However, the inclusion of Kinect should, by extension of its ability to see and analyse your room, render the system consumer friendly by taking complexity and tedium out of the equation.

AN EXPENSIVE AND CUMBERSOME CONCEPT

Consumer friendliness, however, doesn't always translate into commercial success. For all intents and purposes, this is a gimmick—a very impressive one, but a gimmick nonetheless. When you scratch past the veneer, it's evident that the IllumiRoom concept remains a glorified means to pump up the eye candy. Once the initial shock and awe fades away, it is apparent that this isn't meant to be the groundbreaking change in the way we consume movies and video games that it's touted

Jagdish Limbachiya

to be. It is, after all, only an optional extra, and a potentially expensive one, if it were ever to see the light of the day.

There are one or two major factors that stand to inhibit the concept from garnering wide acceptance from the masses. First and foremost is the high projected cost and dependence on projectors—a display source that generally hasn't been popular by itself in the consumer segment. The sheer amount of prerequisites and restrictions entailed by the inclusion of projectors in the living room alone should put off your average consumer.

Second, it's a difficult balance to attain. Use projectors with energy-efficient LED lamps, and darkening the room becomes a necessity, which is too impractical to be expected from something that's nestled bang in the middle of the living room. Switching to brighter traditional projector lamps, however, leads to impracticalities such as extended warm up times and significantly high energy consumption.

Another major factor that could potentially make wider acceptance difficult is the very ingredient that makes it possible to bring the 3D projection mapping technology to the living room—the Kinect motion sensor. Let's not forget the fact that not only does this concept reduce its target demographic to those who own the Xbox 360, but an even fewer number of Xbox owners have embraced the motion sensor, which is sold as an expensive optional add on.

While rumours about the integration of Kinect hardware into the upcoming Xbox 360 successor have been falling thick and fast, that just might make matters worse. Although that may bring costs down, let's not forget the fact that a console is generally placed in the same plane as the TV set. The Kinect, which is now integrated with the Xbox 360, therefore will no longer be able to analyse the TV side of the room for the IllumiRoom concept to work.



This may look enticing, but it won't be very practical.



You'll need a completely empty room to really enjoy this.



IllumiRoom won't change how you experience games. It's optional after all.

A TALL ORDER

The high cost and hardware exclusivity isn't the only hurdle, though. Absolutely any console ecosystem invariably pivots on the cooperation of content creators. For this entertainment revolution to succeed, both video game developers and movie studios must deliver content that leverages the IllumiRoom technology. This is a tall order, especially for films, because doing so will require the studios to invest heavily in separate masters for movie prints. When you factor in the Blu-ray standard's dominance on the high-end home entertainment spectrum and Microsoft's arch nemesis Sony's stranglehold on the format, it's evident that the going will not be remotely easy in that regard.

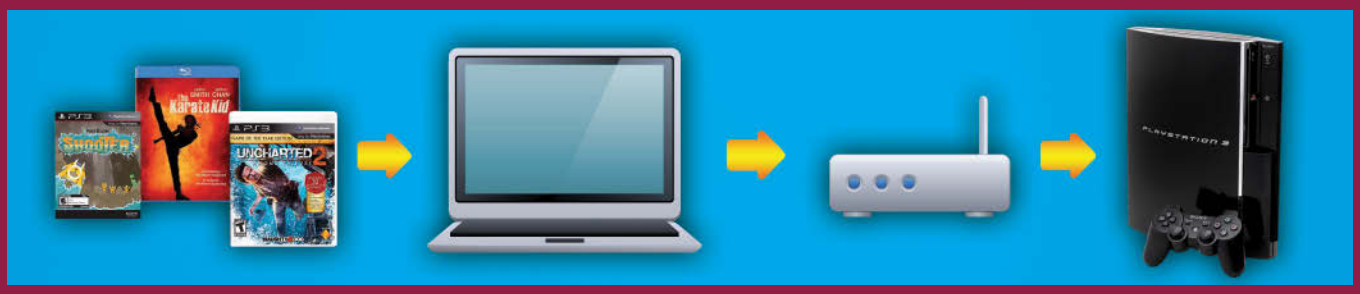
Video games, similarly, will require the developers to learn, adopt and become familiar with the requisite APIs to integrate the IllumiRoom system. Drumming up developer interest for a concept as niche as this will be a tough sell for Microsoft. Just think about it: how many third-party mainstream video games you know have meaningfully leveraged Kinect's motion controls in the core gameplay?

At the very heart of it, the IllumiRoom is a rather expensive and cumbersome approach to the holodeck concept. It isn't even the only stab at bringing Star Trek's vision of augmented reality to fruition. VR Headsets such as Oculus Rift, for example, are a relatively cheaper, hassle-free and more elegant means of achieving the same. The reason why these attempts at recreating everyone's favourite sci-fi fantasy haven't succeeded is simply down to the lack of willingness on the part of content creators to give the consumers enough of a reason to embrace these systems.

At the end of the day, no matter how much Microsoft refines the IllumiRoom concept, it simply will not succeed unless it can corral its pool of video game developers to create content for the system. Films will be an even greater hurdle for the aforementioned reasons. To be brutally honest, making the concept succeed seems to be a tall order even for Microsoft.

Download PS3 Games Through Your PC

BY **NACHIKET MHATRE**



The crazy number of discounts doled out for AAA titles on Sony's PlayStation Store makes digital downloads seem irresistible compared to expensive physical copies. I mean, who wouldn't mind purchasing a game like Bayonetta for Rs 900 off PSN (PlayStation Network) when it still sells for Rs 2,499 in brick-and-mortar stores? Unfortunately, like all good things in life, this too comes with a catch.

For starters, downloads on PSN are slow and most of them can't be resumed if your Internet connection conks off. It's not uncommon either for an inopportune power cut to ruin an entire 10GB game download. But it's not just the speed or unpredictability. I find it hard to accept the idea of downloading dozen-odd gigabytes of data through a console—something that isn't really built for durability and rigours of 24/7 downloading. A console has a limited lifespan and I'd rather spend it playing games than downloading them.

But what if I told you that you could use your laptop or desktop to download PSN content, replete with the ability to pause, resume and recover downloads? This witchcraft comes courtesy of CF3B5's PS3.ProxyServer. This nifty piece of freeware lets you use the PC to download PSN content from the comfort of your favourite download manager. Thereafter, your PS3 can fetch the download off the PC, even as the utility fools the PS3 into believing that it's accessing the download from PSN itself.

WHAT YOU NEED

- A PS3 console
- A laptop or desktop PC
- A router or switch connecting the PC to the PS3
- PS3.ProxyServer utility (http://ps3-proxyserver.software.informer.com)
- Microsoft .NET Framework 1.1 (http://www.microsoft.com/en-us/download/details.aspx?id=26)
- Service pack for .NET Framework 1.1 (http://www.microsoft.com/en-us/download/details.aspx?id=33)

The process may be a bit daunting for a beginner, but that's where this simplified, screenshot-rich guide comes in. Just follow the lucid and easy-to-understand steps and you'll be revelling in PC-assisted PSN download nirvana in no time.

INSTALLING PS3.PROXYSERVER

You need Microsoft .Net Framework 1.1 and its service pack to install PS3.ProxyServer. This makes it impossible to install the utility on newer OS such as Windows 7, which is incompatible with this version of the .Net Framework. However, all you need to do is follow these steps to get around the problem.

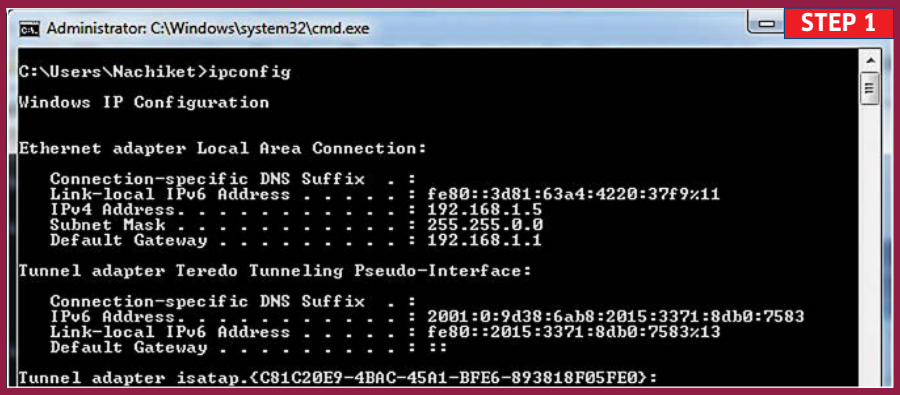
- Create a new folder "DotNet" on your hard drive. Let's keep it simple and use the system root (C: drive).
- Rename the .NET Framework 1.1 Redistributable Package as "dotnetfx". If you can see the file extension (an ".exe" at the end of the filename), keep it as it is.
- Rename the service pack (NDP1.1sp1-KB867460-X86.exe) as "dotnetfxsp1.exe". Ditto for the file extension here as well.
- Move both installation files into the DotNet directory.
- Open the command prompt by clicking on the "Start" button, selecting "Run" and then typing "cmd". If you can't see the "Run" option, press "Windows Key" + "R".
- In the command prompt, type "cd c:\DotNet" and press "Enter".
- Type the following commands one by one (along with quotes), press "Enter" after each one and click on "OK" or "Yes" in the resulting dialogue boxes:

```
dotnetfx.exe /c:"msiexec.exe /a netfx.msi TARGETDIR=C:\DotNet"
dotnetfxsp1.exe /Xp:C:\DotNet\netfxsp.msp
msiexec.exe /a c:\DotNet\netfx.msi /p c:\DotNet\netfxsp.msp
```

Now you can install .Net Framework 1.1 by running 'netfx.msi', which has been now created in the 'DotNet' folder. This makes it possible to install the PS3.ProxyServer utility.

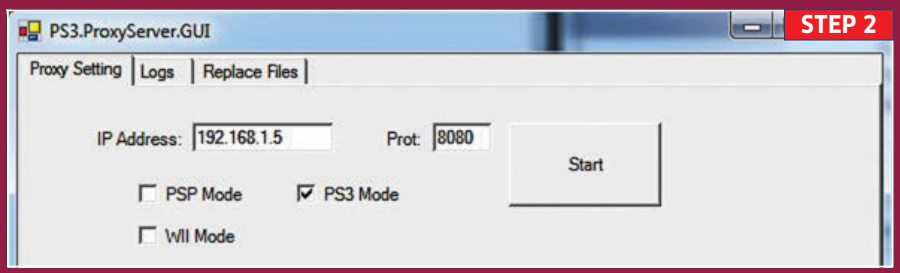
Jagdish Limbachiya

STEP 1: This is where we gather the information needed for Step 2. Start the command prompt and type "ipconfig" in the new window and press "Enter". Note down the IPv4 address in the "Ethernet adapter" section (for wired connections) or "Wireless adapter" (for wireless connections). This address allows the PS3.ProxyServer utility to route the downloads from the PC to the PS3 and vice versa.



Note down the IPv4 address.

STEP 2: Now use the address noted in Step 1 to set up the PS3.ProxyServer utility. In the "Proxy Setting" tab, enter the IPv4 address in the "IP Address:" field, check the box for "PS3 Mode" and enter 8080 in the "Prot:" field. Don't forget to keep the computer switched on.

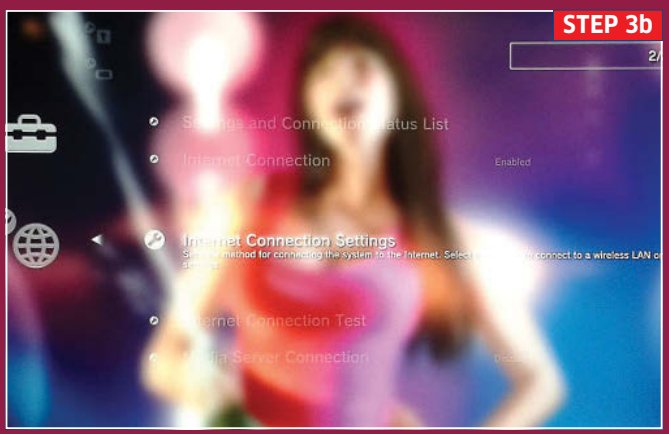


It won't work until you click "Start".

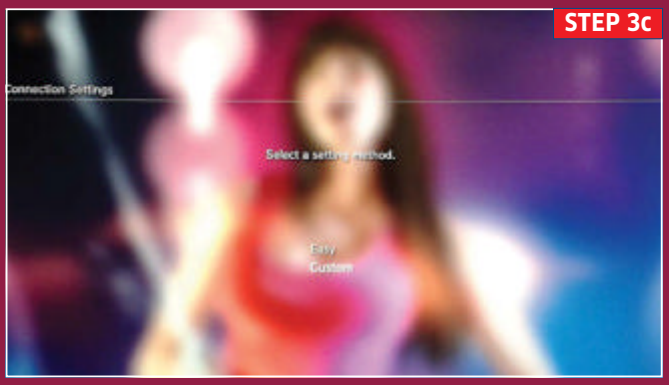
STEP 3: Fire up your PS3 and follow the instructions within the image captions.



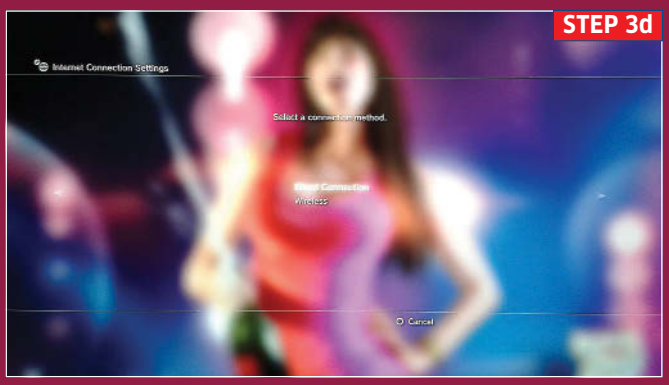
In the "Settings" column, navigate to "Network Settings".



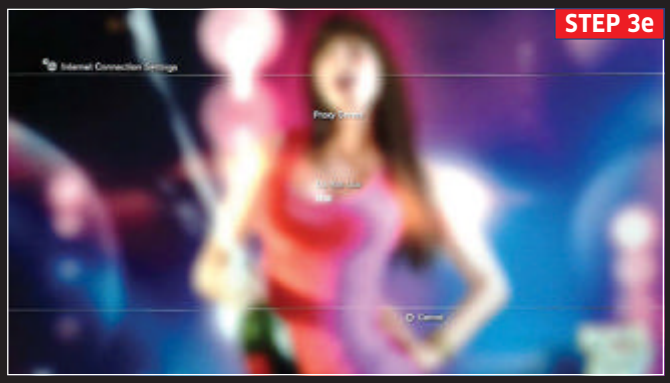
Select "Internet Connection Settings".



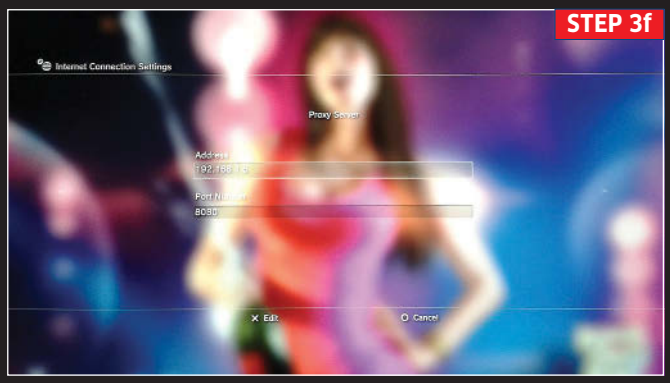
Choose "Custom".



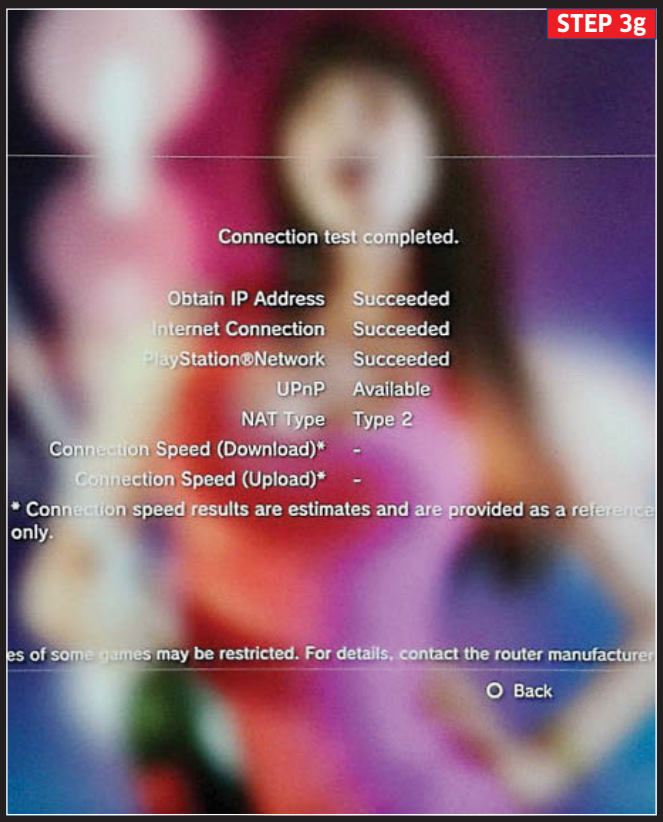
Choose the option according to your network setup and keep accepting the subsequent default values.



Select "Use" in the "Proxy Server" option.

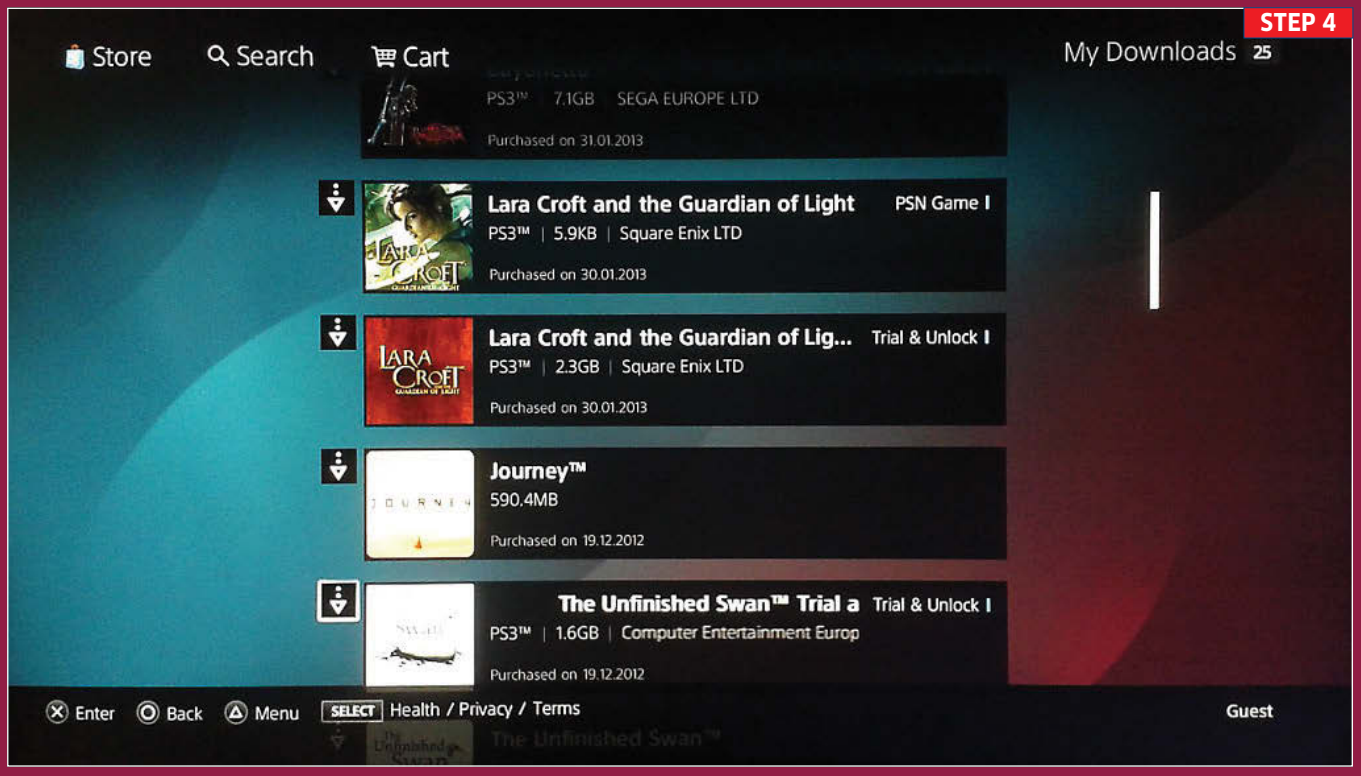


Enter the IP Address and Port Number identical to the ones entered in Step 2.

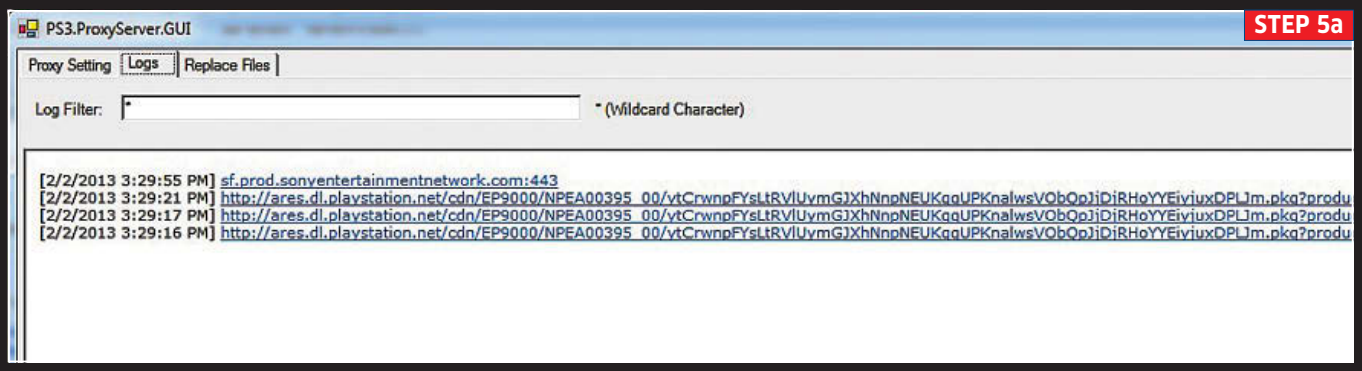


This is what you should see if your setup is correct.

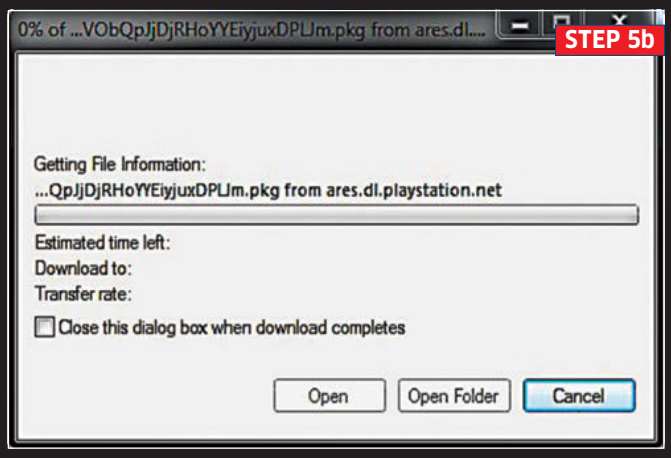
STEP 4: The PS3 is now routed to the Internet through the PC, so it's time to download something. Either initiate a game update or any PSN download and cancel it after a couple of seconds. Note down the exact time you initiated the download.

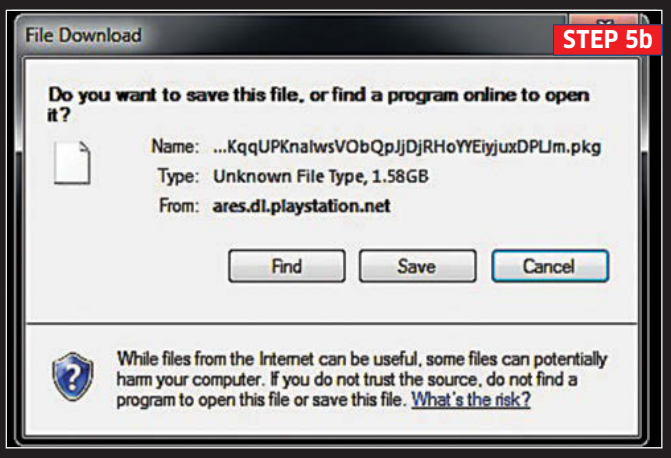


Note the exact time of the download to make the next step easier.



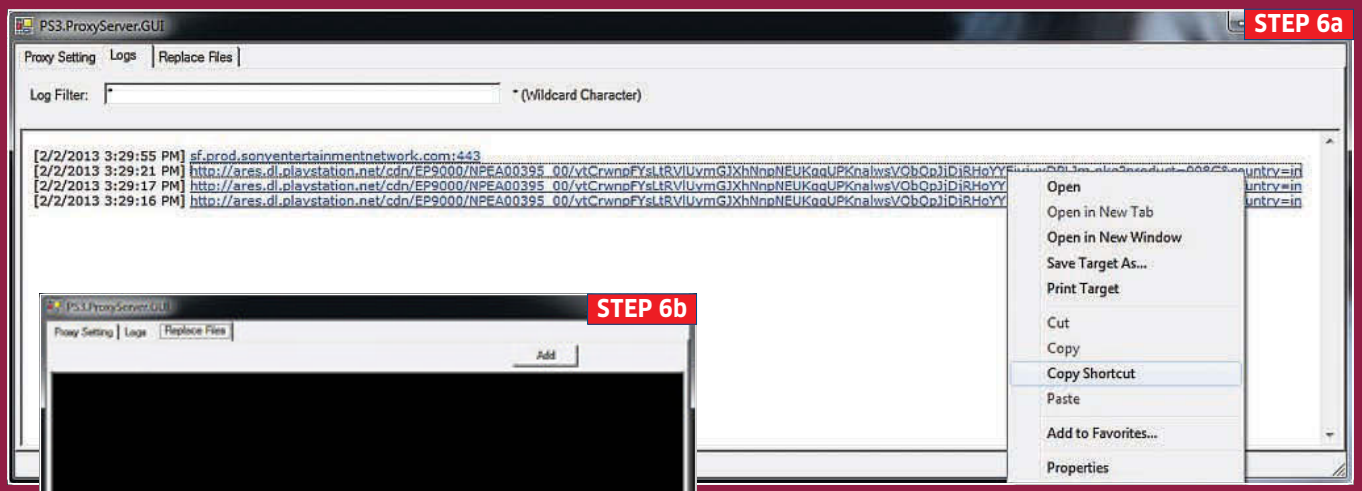
Use the timestamp and file size to determine the right download link.





I recommend using a download manager to fetch the file off PSN.

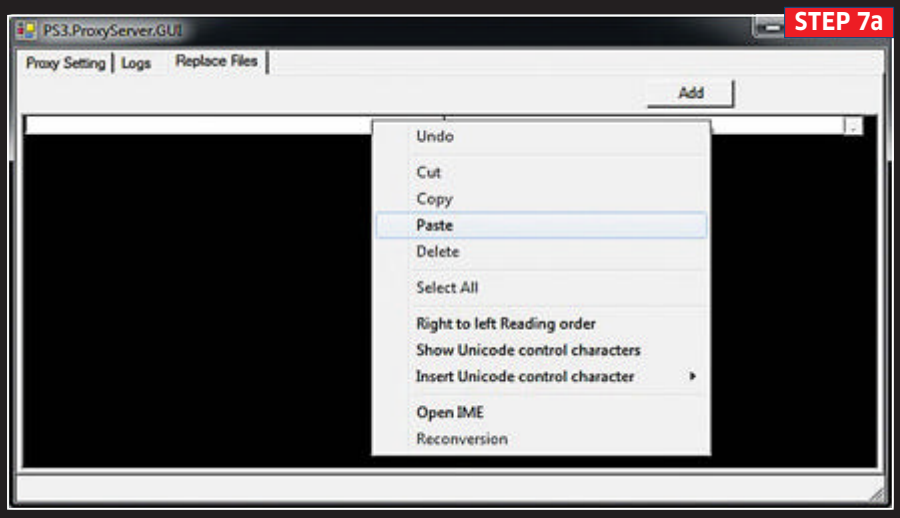
STEP 6: This is where we begin the redirection process.



Right-click on the same download link and select "Copy Shortcut".

Once the download is complete, move on to the "Replace Files" tab and click the "Add" button.

STEP 7: This brings up two text entry fields and a button.

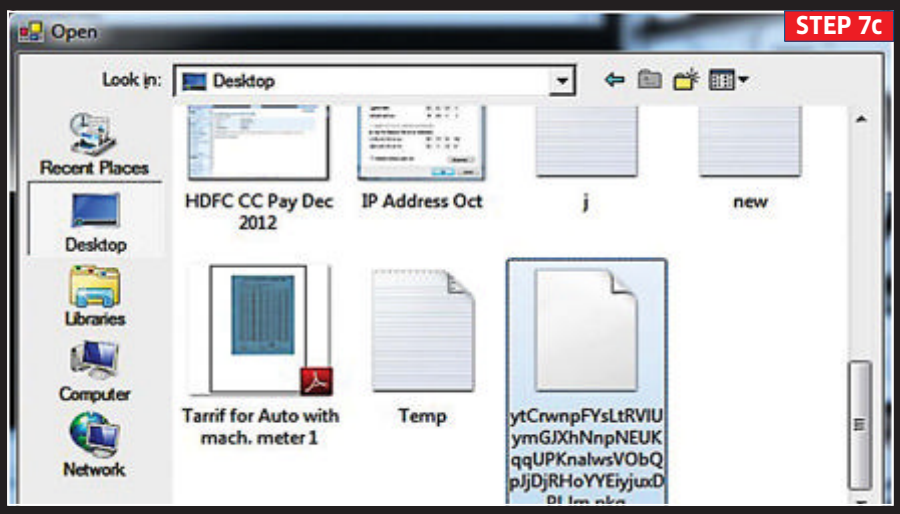


Paste the link obtained in Step 6 into the empty text field on the left. This allows the utility to direct the PS3 to download the links from the PC instead of connecting to the Internet.

Now, link the url to the file downloaded on your computer.

Now click on the button depicted by the arrow. This will bring up the "Open" dialogue box.



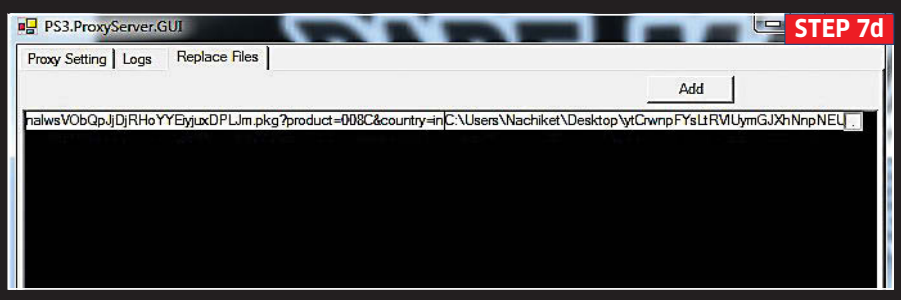


Browse to where you saved the download and select the downloaded file. Click "Open".

This essentially links the url to the previously downloaded file on the computer.

The utility will now work its magic.

If you haven't messed up things catastrophically, this is how the output should look at the end.

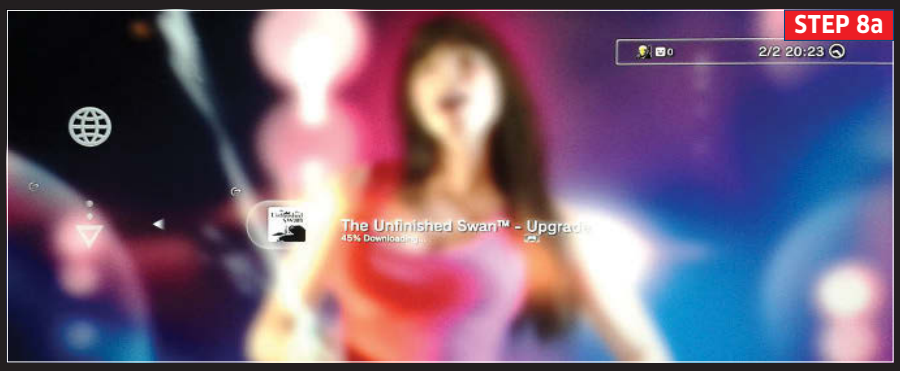


STEP 8: Now all you have to do is relax, because you have already tackled the hardest part of this endeavour. Now, all you have to do is replicate the download process followed in Step 4 to download the file onto the PS3.

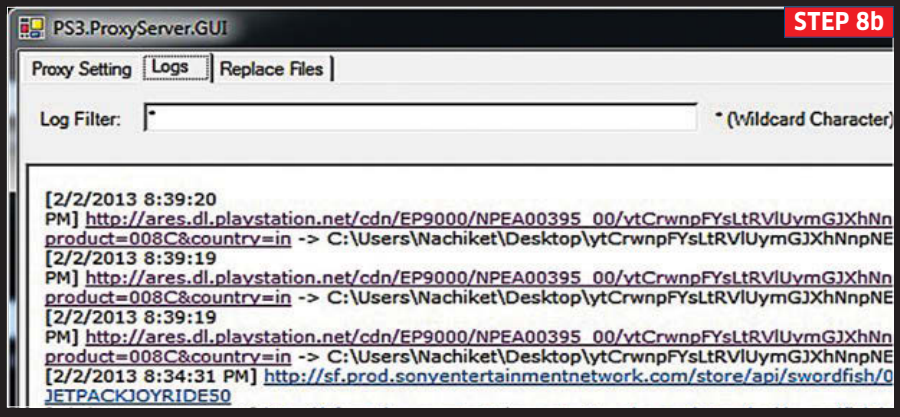
However, the PS3 fetches the download from the PC and not the Internet this time around, so the download speed should be as good as your internal network allows.

You'll know this trick has worked if you can see a redirection log entry on the PS3.ProxyServer utility. The download link will point to the path where the file was downloaded on your PC. What's more, you can create multiple redirections to fetch multiple downloads from your PC.

Now pat yourself on the back, because you have not only saved yourself from the agony of slow and unreliable PSN downloads, but this also goes a long way in prolonging your PS3's life. Happy Downloading!



Reinitiate the download as usual to fetch it from the PC.



The hyperlink pointing to the path on your PC is a sign of the download being successfully redirected.



Ear Protection for Dummies

BY **NACHIKET MHATRE**

IEMs, or In-Ear Monitors, which were hitherto the reserve of audiophiles with deep pockets, have now breached the mainstream. Originally conceived for musicians and audio engineers, IEMs started life as custom-moulded earpieces created with the sole purpose of achieving optimum mechanical noise isolation in busy live and studio environments. What was envisioned as professional equipment to enable musicians to monitor their feed during live concerts, eventually gained popularity due to its unprecedented feasibility as a portable audio solution.

It wasn't long before audiophiles caught on the IEM's ability to reproduce fine details and, more importantly, attenuate ambient noise to a great degree. However, audiophiles aren't the only ones to embrace them. These earphones have even replaced the ubiquitous stock earbuds bundled with smartphones and PMPs (Portable Media Players). Considering the number of gamers who have adopted the smartphone platform, it is imperative to know how to use these in-ear earphones responsibly to prevent hearing damage.

A surprisingly small percentage of users genuinely know how to use them effectively, since such earphones are relatively new. The very nature of their fit and working principle makes them sound spectacular when worn right, but any mistake in that respect translates into a severe compromise in the overall audio quality. Worse yet, in most cases, the penalty goes beyond that, because improper usage can potentially cause permanent hearing loss as well. This guide, therefore, focuses on what constitutes hearing loss, how improper IEM usage is a contributing factor, what should be done to prevent that, and finally, how to get the best out of your IEMs.

UNDERSTANDING HEARING LOSS

The concept of permanent hearing damage for most people involves sounds at or above the threshold of pain, which occurs at 130dB. Such damage is generally reversed in 16 to 48 hours, but hearing loss can be irreversible if the cochlear cells (inner ear) are damaged. This sort of ear trauma is caused by exposure to transient sounds such as explosions or passing jet planes in close proximity.

However, any sound over 85dB can potentially cause hearing damage. The only difference being that it takes around eight hours of continuous exposure at that noise level before hearing loss sets in. For every 3dB increment thereafter, the permissible exposure time is cut down in half. That means,

you'll damage your hearing in just four hours at 88dB and two hours in 91dB, whereas sounds at 115dB take approximately 30 seconds to have the same effect.

While louder transient sounds instinctively prompt us to safeguard our hearing, those of a lower magnitude tend to be more insidious. Loud music is the best example since it's more likely to be listened to long enough to cause irreversible auditory damage. In fact, permanent hearing loss attributed to long spells of chronically loud music through earphones is more common than you'd imagine.

I have personally witnessed quite a few cases where people have suffered anywhere between 10-15 percent hearing loss due to long-term exposure to loud music from headphones. This is a genuine problem and should be addressed by creating awareness and following good practices for enjoying music on the go.

IEMS AND AUDITORY DAMAGE

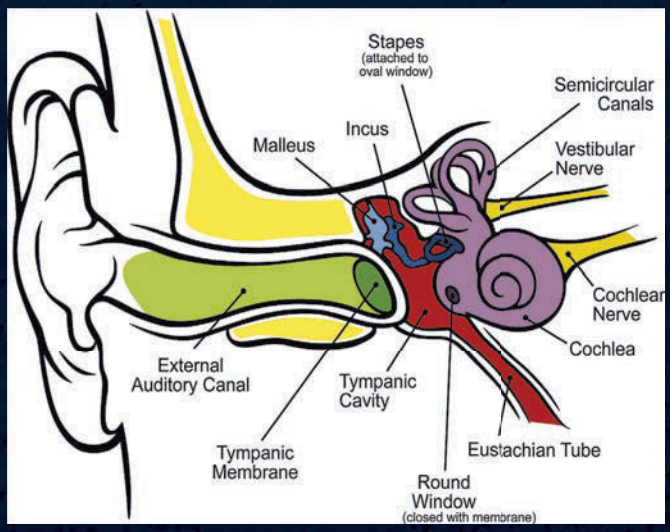
Before we get into the details, there's a common myth I want to rubbish: IEMs are more dangerous due to their proximity to the eardrum. This couldn't be further from the truth. When used correctly, they're just as innocuous as your regular earbuds or headphones. In fact, the way they function makes them less likely to cause ear damage. It's all down to the physics.

The power requirement of a transducer (speaker) is directly proportional to the volume of air it has to move. Because IEMs create an airtight seal and have to deal with a considerably smaller acoustic chamber, they must push only a miniscule volume of air. They, therefore, have to radiate a surprisingly less amount of energy to generate the same Sound Pressure Level (SPL) as larger headphones. This actually puts less strain on your ear drums.

However, an IEM loses its efficiency significantly when this airtight seal is broken. When that occurs, ambient noise is free to leak in and the drivers have to work harder to compensate. The extent of harm caused by such a combination of high volume and loud ambient noise is best illustrated by conducting a simple experiment:

- In a quiet room, play one of David Attenborough's documentaries on your TV set.
- Reduce the volume levels down until you can just about comprehend Attenborough's commentary.
- Note down the volume level and maintain it for five minutes.
- Now, play some loud music (preferably Death Metal) on your music system at as high a volume level as you can endure for five minutes.
- Turn off the music system and try listening to the voice over on the documentary.

Unless you happen to be the Son of Krypton, you should not be able to comprehend Attenborough's commentary anymore. That's because your brain has attenuated your hearing capability in order to reduce discomfort. To put it simply, as ambient noise increases, you need higher SPL to create the same amount of perceived sound. Your eardrum nevertheless is bombarded with a much higher sound level, which doesn't bode well for your ears.



GETTING THE RIGHT WALRUS. NO WAIT... SEAL

The above example should explain why IEMs are best suited for outdoor usage thanks to the excellent mechanical dampening afforded by their airtight seal. However, this is largely dependent on choosing the right ear tip size. More often than not, the average user ends with one that cannot ensure a good seal. This is mainly because the typical Indian ear (auditory canal) is smaller than its American or European counterpart. Using the default medium-sized tip, therefore, is a bad idea for the average Indian.

Trying out different ear tips is the first thing you should do, because a right sized tip allows deeper penetration into the ear canal. This is of utmost importance, because using an oversized tip that doesn't fully enter the canal makes music sound tinny and thin. Perfect fitting IEMs not only provide a noise-isolating seal, but they also improve bass and the overall music tonality.

MAINTAINING A SAFE VOLUME LIMIT

Although IEMs provide noise attenuation, they aren't perfect. With high enough ambient noise, you may just crank up the volume levels beyond the threshold of safe hearing. The best way to prevent that is by determining this threshold and making a point not to exceed that volume level. This is the best way to go about doing that:

- If your smartphone or PMP has an auto-volume levelling feature, it's wise to let it equalise the levels between different recordings.
- Go to a quiet place and listen to music at a volume level that you can comfortably sustain for extended listening sessions.
- Make a note of that volume level and do not exceed it under any circumstances.

If you ever have to exceed this volume level, that means either your earphones cannot provide enough sound isolation, or the ambient noise is unacceptably high. In both cases, the best course of action is to grit your teeth and stop listening to music altogether.








WEARING IEMS THE RIGHT WAY

The lack of a proper seal is the most common reason why IEM users listen to music at chronically high volume levels. You may choose the right tip, but that amounts to nothing if you don't know how to wear them the right way. It's staggering to know how few IEM users actually manage to get that right. But if you think you aren't one of them, fret not, because you will be once you're done with this guide:

- If your IEM comes with foam tips, they should be rolled thin between your palms before insertion.
- Hold the right-hand-side IEM with your right hand.
- Reach over your head with the other hand and grasp the top of your right ear.
- Pull the ear up and slightly outwards and hold it there. This straightens the natural curves in your ear canal.
- Open your mouth slightly to expand your ear canal.
- Gently twist the IEM inside the canal till you achieve a seal.
- Repeat the procedure for the other channel.

Never remove the IEMs in a quick motion. Always gently twist them in/out to prevent vacuum build up (while removing) and air pressure (while inserting) from damaging your eardrums. Although the phenomenon isn't harmful, IEMs cause a marked increase in the production of bacteria in your ears. For this purpose, do let your ears breathe after extended periods of usage. Doing so also prevents fatigue and allows your ears to recover. Remember that your body treats IEMs as foreign bodies, which leads to an increased wax production. It's therefore a good practice to clean your IEMs as well as your ear canals on a regular basis. Following these tips will safeguard your hearing and also deliver an increase in bass response and attenuation of external noise. In case you have second thoughts, keep in mind that your hearing is definitely worth the extra effort and the slight embarrassment the elaborate ritual may cause in public.