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Stuck in the box

January is typically an exciting month for geeks, thanks to CES Las Vegas, and all the hype surrounding it. For good reason too, because it's one of the world's largest technology fairs, and is quite reliable as a way to predict the year ahead.

Everyone expected tablet PCs running Google's Android to be in abundance at CES, and they were – over 70 new tablets were launched. It's obvious that tablets are going to hit you smack in the face this year, with all and sundry throwing irresistible offers your way. No surprises there.

Intel finally unveiled its Sandy Bridge chips to the world, but we'd already had them in our labs for over a month, waiting only for the confidentiality embargo to pass so that we could share the test results with you.

3DTVs and 3D entertainment were the other big talking points, but then as Digit readers, you're probably already bored of all the 3D. "Where's the content?", you hear yourself scream – in frustration. Plus, with so many people feeling dizzy after staring at 3D displays for extended periods, it's probably not a really exciting topic for you... not until they do away with those stupid glasses...

Then there was the fact that everything portable got smaller, or at least more powerful; screens for your home got bigger, but sleeker; Microsoft promised us the world with Kinect; every gadget seemed to be capable of having an IP address (IPv6 here we come); and world hunger was eradicated (not!).

So basically, everything got smaller/bigger, it's all converging online, all faster, all new and yet all old at the same time... it's like the technology world's plateaued, and everything is the next big thing, and yet none of it really is.

Of course, you've probably read a hundred reports about it already, and most (or all) of them will have waxed eloquent about how this year's edition was "even better than last year" (isn't it always?), and how "there are exciting times ahead", and more clichés than you can handle. Heck the story on CES in this very issue of Digit has one or two of those thrown in for good measure.

Personally, I'm looking forward to colour e-ink like screens the most. We tested a few monochrome ones this month, and anything that can offer a month of battery standby, and close to a week worth of reading gets my vote. Throw in a colour screen, and I'm even happier. However, companies are now trying to tack touch screens on to these readers and completely losing the plot. Some categories just shouldn't converge...

Another reason why colour e-ink screens grab my attention is because they're the best bet to replacing paper, especially magazines – we'll have an ebook version of Digit before you know it.

So what did we learn from CES? The same thing we've been seeing for years I suppose – brands falling over themselves to be the next Apple iPod, trying to part us fools from our money for devices we really don't need, but most certainly "must have". Is that the future of technology? Gadgets, gizmos, web services and more that play on our narcissistic streaks and need to impress others?

Are we all just destined to become fat, lazy, blobs of flesh who just consume, consume, consume? Save us WALL·E!

We certainly hope not, and that's why Digit will try its best to keep showcasing exactly what the future *should* be.

This month, we spent a lot more time discussing the utopian world of the Venus Project than the latest at CES, which was a pleasant change. Although I think the Venus Project is an idea that's a few hundred years before its time, it's still an interesting concept that has technology and its rapid development at its core. At least *someone* is trying to solve world hunger using technology, instead of thinking only profits... Turn to page 38 to read the whole story.

What we at Digit hope to be able to do more successfully this year, is to challenge you to think out of the box, and expose you to new ideas – one article at a time. And even though you may feel that ideas such as the Venus Project are "the result of smoking too much pot", remind yourself that it was similar stuck-in-the-box thinking that led to infamous foot-in-mouth quotes such as: "640K ought to be enough for anybody", "..there is a world market for maybe five computers", and my favourite, "Everything that can be invented has been invented"!

Robert Sovereign-Smith
Executive Editor
editor@thinkdigit.com

"So basically, everything got smaller/ bigger, it's all converging online, all faster, all new and yet all old at the same time..."

Liked or hated the views in this column? Write in to me and express your own opinions and ideas.

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Photo Perfect Express
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3D Movies
Flamenco 3D
Golden Prague 3D
How to make 3D glasses
Game Trailers
Killzone 3
Marvel vs Capcom
Uncharted
Dead Space

DEPLOY
Recommended
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Opera 11
Foxit Reader
Linux
BackTrack
NEW Apps
One Team
TuneUp360
TuneUp360
Automatic USB Backup

ENJOY
Movie Trailers

PLAY
Casual Games
Polygon Racer 3D
Berzerk-Ball
Avert Fate
Paradox Origin

OMEGA

Practice / Solved
CBSE X
XII
AIEE
AIPMT
Educational Apps
Flash Card Manager
Able Mind
Researcher
Universal Math Solver
Unit Converter Pro
Able mind speed reading
Recommended
Riva FLV Player
Sandboxie
Orbit Downloader
KM Player
CCleaner

SPECIALS
App Fiesta
Intel AppUp Center

GAMING
Elementals
Offroad Racers
Super Motocross Deluxe

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A-DATA NH 03
Akai F1
Alienware M15x
AMD Phenom II X4 975BE
AMD Radeon HD 6950
ASUS G53J
ASUS O!Play HD2
ASUS RT-N56U router
BenQ XL2410T
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Corsair HS1
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Gateway LT 23
Genius SW-M2 Speaker
Intel Core i5 2500K
Intel Core i7 2600K
Intex IN2060
Intex IN8810
Iomega eGo 1 TB USB 3.0 drive
Logitech G19 Gaming Keyboard
Logitech Keyboard K800
Maxtone KPC-A5
MEElectronics HT-21
Micromax Q66 Eclipse
Motorola Quench XT5
Nokia X5-01
Panda Global Protection 2011
Philips Heat Protect Notebook Sleeve
Philips SHL5001
Razer Naga Molten Special Edition
Samsung ST80
Seagate Barracuda Green 2TB
Sony NEX-5
Sony NWZ E454
Spice M-67 3D
Techcom T-21
Trend Micro Titanium Maximum Security 2011
ViewSonic VX2250wm
WD Caviar Green 3TB
Wyncomm Y100
XFX Radeon HD 6970

Ebook reader comparison test
Kindle 3G + WiFi
Infibeam Pi
Leaf Touch
Leaf Mega
Leaf Touch Pro

Sandy Bridge Motherboards comparison test
ASUS P8H67 - M
ASUS P8H67 - M EVO
ASUS P8P67 PRO
Biostar TH67XE
ECS H67H2-M
ECS P67H2-A
Gigabyte H67A-UD3H
Gigabyte P67A-UD3R
Gigabyte P67A-UD7
MSI P67A-C45
MSI P67A-GD55
MSI P67A-GD65
Intel DP67BG

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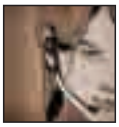

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✉ One of my friends told me about magazines dealing with PC troubleshooting. He asked me to read Digit. I found some issues with the magazine which I would like to point out.

The DVD interface is old and not very interesting. I think you should work on it. But your distros were very cool. You should also provide the list of softwares on the DVD for easy access.

Being a gamer myself, I found that the gaming section of your magazine contained less number of pages in comparison to your rival. You should increase it to atleast 4-5 pages, giving only the top 5 games of the month.

Well these are just a few pointers. I don't mean to humiliate you, it's just a suggestion. Hope you won't mind but since I am spending money I think I deserve a little better.

Manas Dasgupta

We are always open to constructive criticism and we do not take offence if our readers trash us for not living up to their expectations. You spend you hard earned money and you should get the best.

As for DVD interface, aliens abducted our DVD designer, and since we have a policy of not negotiating with terrorizing aliens, we've cloned him from a strand of hair we found on his chair, and are waiting for the clone to mature. Sorry, but that just seemed like a better explanation than the usual excuses I give you. I will promise to try and chain myself and a Flash designer to a chair this month and get it done.

Robert

✉ I am a regular subscriber of Digit. The January issue was quite interesting. Especially the article, "Who wants to be a billionaire?" It was very inspirational and I read it more than five times.

I am presently working on an educational web site. I found that learning PHP is important for new developers so please dedicate a Fast Track on PHP. The fast track edition on Java was superb. Also please include an article comparing VB.net, PHP, Python and Ruby. The article on thorium reactor was source good knowledge. Keep up the good work.

Appu

Feels good to know that January cover story impressed you so much. We are glad that we have inspired some of our readers to follow their dreams. We already did a Fast Track to PHP in January 2009, but perhaps we might do an advanced part 2 if we get enough requests for it.

Nash

✉ I came across an article in the January edition, "Technologies that women should be banned from using". This seems to be a very childish article with no technical content. Just piggybacking on gender issues to get published. Digit I believe is an excellent technical magazine and I request you to filter out non technical matter. If not checked now might just lead to more and more of these articles degrading the quality of the magazine. I have just subscribed to Digit to read something stimulating and refreshing. I just hope it continues that way.

Pramod Kutty

The article was a satirical opinion of the way we continue to treat our women in India, and I stand by my decision to carry it. Digit will always highlight important issues, and sometimes in very controversial ways. It was only one page, but we got a lot of positive feedback as well for it. The only thing I can guarantee is that you will find most of the articles in Digit to your taste – but every once in a while you will, without doubt, find articles like this that you will hate with a passion. I hope that we will all be able to take off our blinders and be more accepting of alternate views as well.

Robert

✉ I have been reading Digit for the last three years, but this is my first letter to you. First of all, I would like to congratulate you for your brilliant work. You guys are awesome! So far almost all the articles and DVDs have helped me. I have often seen, children of my age make their own web sites. I also want to make my own web site.

Could you please provide a Fast Track on HTML5? If not Fast Track then any tutorial in the DVD will do.

Your World View section is wonderful as it updates us with the latest advancements in technology. Also please let the Fast Tracks remain as hard copies.

Utkarsh Jain

Thank you for being a loyal reader. Youngsters these days are very tech-savvy and we try to help them nurture that passion. We had done some articles

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Interesting fusion
Virtual windows can be used along with a Wii remote and an IR badge to track your movement and provide you with stunning visuals on the windows

80 Mega Pixel sensor
Danish high-end camera gear manufacturer Phase One has announced a sensor with an 80 MP sensor

on HTML5 last year. It might be a little too early for a Fast Track to HTML5, but we will have one eventually. Don't worry, we have no plans to stop printing the Fast Track.

Nimish

✉ I am a research student (at Indian Institute of Science Education and research) and subscriber of Digit Magazine. I wanted to write an article on some frontier researches going on gravitation wave and gravitational wave detectors. These detectors are huge projects going on at LIGO (caltech) , GEO (Europe), TAMA(Japan) etc. Considering the huge scale of project and magnitude of research value it has, I think people should at least be aware of this emerging field. I have just attended IndiGO school for Gravitational Waves where we discussed in great details about all these detectors and the physics behind them. I was just thinking if I could write an article about the same for your magazine because this has an excellent outreach to that class of society that might be interested to know these developments in research. Please let me know in case you are interested.

Swetha Bhagwat

We always welcome contributions from readers. In fact, the subject area sounds rather fascinating and we're now looking forward to hearing from you. However do keep in mind some of the ethos that we try to stick to while writing. As you too would've noticed, Digit always tries to take complex, highly technical concepts but present them in an easy to understand manner. This way we reach an even larger audience.

Robert

✉ Digit is the only book I read, this shows how crazy I am about Digit. Unfortunately, I bought the collector's edition this year in a retail store near me and found 10 pages missing and instead pages 2 to 13 duplicated. I want to know how to go ahead, because I've never missed out on an issue of Digit since 2004 when we were getting Mindware and Playware CDs. Please let me know how can get the magazine copy replaced.

Vijay Jeba Prakash

Thanks for writing in and our sincere apologies for the printing mix up. We will contact our help desk (help@thinkdigit.com) and try to get your problem sorted out as soon as possible.

Nash

✉ I am an 11th standard student. I came to know about Digit in 2006 from my friend. It helped me a lot in trouble-shooting my PC problems. I have also helped a lot of my friends who have had issues with their PCs. It has earned me the title of 'Chotta Engineer'. Keep up the good work,

Vinay

Well Chota Computer Engineer, glad to have you on board. Be sure to keep an eye our for our tech careers articles in the coming months if you want to eventually take up your IT hobby as a career.

Siddharth

LETTER OF THE MONTH

✉ I am a student and have been reading DIGIT magazine since the past four years. I really like reading it, as it contains useful information regarding computers, gadgets, new technology etc. I got to know so many things because of Digit. Here's my heartfelt Thanks to Digit Team. I want to request you to suggest that which open source OS is similar to Windows XP. I mean to say that, like we are able install games and software so easily in windows system, is there any such Open Source OS available? Also can you please put full versions softwares,games, etc on your DVDs.

Ashwin

Thanks for writing in. Most of the popular Open Source OSes are based on Linux. Many Linux distros such as Ubuntu, Open SuSE, Fedora, etc., will let you use special applications to even double-click-install EXE files. Of course there are always some errors and improper functioning with such Windows-based software running on Linux, and thus it is not a solution you can completely rely on. However, what's wonderful about the Open Source world is that you will soon discover a whole new world of software and games that are specifically built for Linux, and we highly recommend the experience.

As for your second query, although we'd like nothing better than to provide full versions of everything possible, it's hard, because companies expect to make money from their products, and thus expect us to buy the full versions from them. Needless to say, this would involve humongous costs because of our vast readership, and would be a waste, because only a fraction of you would like any one software or game. In any case we keep trying for special tie-ups whenever possible, and that enables us to give away full software and extended trials for special issues.

Robert

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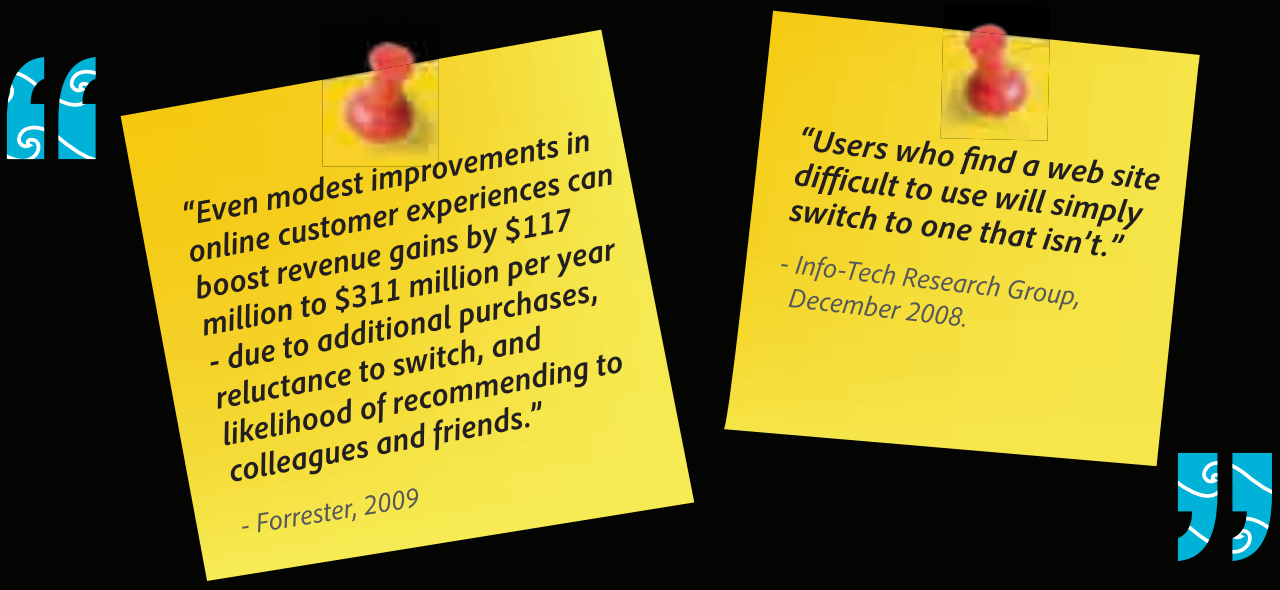

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Graphene wont replace Silicon
After demonstrating a graphene transistor running at 100GHz, IBM scientist claims that graphene will not replace the role of silicon in the digital computing regime

iPad to launch in India, finally
With the iPad2 about to launch anytime soon, Apple has decided to get their iPad to India, finally with prices around ₹33,000 for WiFi and upto ₹44,000 for 3G and WiFi combo

Enthralled @ IIT Techfest 2011

Nimish Sawant
nimish.sawant@thinkdigit.com

The year couldn't have started on a more technology heavy note. As if the Consumer Electronics Show (CES) 2011 in Las Vegas was not enough, Indian Institute of Technology Mumbai (IIT-B) had scheduled their annual technology extravaganza on the very same weekend. The IIT Techfest 2011, one of Asia's largest technology festival, was held in the IIT campus from January 7th to 9th. It was three days of technology overdose and we were left asking for more. The festival had many events, talks and paper presentations, various competitions involving robots and all the other usual activity happening at college fests. Unlike other college tech fests, the IIT Techfest is reknowned for its big ticket speakers and research innovations on display. This year saw lectures by the likes of Michael Jones - Founder, Google Earth; KS Pua - Inventor of the pen drive; Jaap Haartsen - Inventor of Bluetooth technology; Holger Bech Nielsen - the father of String Theory; Richard Stallman - from the GNU Project and Free Software Foundation among others.

We decided to concentrate more on the innovative tech on display at the campus. Presenting below, the best of the lot.

OpenViBE

French scientific organization INRIA had displayed the brain computer interface software called OpenViBE. It is a software platform for designing, testing and using brain computer interfaces. What the interface essentially does is process the electrical signals linked with brain activity and convert them into a command or language that can be understood by the machine. The brain activity is measured by a process called electro-encephalography (EEG). The user has to wear an EEG cap which has a number of electrodes located at strategic positions, which are linked to a device which helps the brain to communicate with the computer.

OpenViBE system

On asking about the practical applications, we were told that brain-computer interfaces along with OpenViBE could be used to assist patients with motor disabilities, in virtual reality gaming, home automation systems among others.

Willowgarage PR2 Robot

Just last month in Digit we had spoken on gesture based computing, about a Kinect hack which was being proposed to be used along with an open source Robotics Operating system (ROS). Seeing Willow Garage's PR2 robot brought a smile on our face, as this was something familiar. Personal Robotics program is an endeavour to use robots in everyday usage scenarios. The Willow Garage community has come up with the open source ROS system and have given away around 10 to 12 PR2 robots to various universities, research organisations, etc, to build up on the ROS and come up with variety of applications for the robot. The idea is to have a common platform and share code information on the innovative ways in which a robot can become as ubiquitous as a personal computer.

At the demo, we were shown the PR2 robot recognising various objects placed on a table and lifting it. The robot comes with a 3D camera built into it. Using lasers, the robot scanned the room with the right amount of depth and displayed it on another monitor in real time.

Willow Garage PR2 Robot

The hardware that makes up the robot includes two quad core Xeon Core i7 processors, 24 GB of memory, two externally removable 1.5 TB drives and an internal 500 GB hard drive.

While still in the developmental stage, the PR2 robot can be utilized in areas like geriatric care, for doing repetitive tasks like doing the laundry, etc.

ECCE Robot

This was one of a kind robot we have seen. We have all seen quadri-pedal, even bi-pedal robots which mimic the human form factor perfectly. But the internal working of these robot is nowhere similar to the human body which involves bones, muscles joints, etc. ECCE Robot developed by the Artificial Intelligence lab of University of Zurich, University of Sussex, Technical University of Munich, comes closest to mimicking the way a human body works at the bone and mascular level. The robot on display at the Techfest was unfortunately not working due to some issues, but we got a lowdown on its working. At the outset, the robot is a complex compilation of strings, elastic threads, motors and bone like plastic structures. Idea is to have a mechanism similar to that of muscles, tendons and bones while moving the robot.

Components making up this robot are easily available. For instance the bone is made of poly-

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Barnes and Noble will discontinue Nook 3G due to the dwindling supply

Airtel launches 3G services
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ECCE Robot

morph material which consist of plastic pellets, tendons are made of kite line, elastic material of a muscle is provided by a shock cord and finally the muscles are actuated by screwdriver motors.

Modular Robots

Students from University of Pennsylvania's Modular Robotics lab showcased the Connector Kinetic Robot (CKBot) which at first glance resembles a centipede. Each modular robot is a small and can move along one rotational degree. Many such units can be connected to each other to scale the robot making it more robust at the same time. This robot can be attached to various other modules like a gripper module, to IR proximity sensors, camera modules to apply it in various use case scenarios. We were informed by the students that it was a lab project and they saw its future applications in areas like robotic arm, search and rescue, space exploration, anywhere you have multiple applications. It is a scalable solution where you can keep adding on modules depending on the nature of use and a single structure can serve more than one purpose.

Touch the Invisibles

With touchscreens becoming ubiquitous these days, how cool would it be if you were able to feel what you touch. Haptic feedback technology does that to an extent, but it cannot give different feedbacks based on the surface. Scientists from Osaka University and NTT Communication Science lab have developed a nail mounted tactile interface. A vibrator which is voice coil, is attached to the users nail and as you move your finger along the display and come across any obstacle, a vibration can be can be felt. So for instance if you move your finger with the vibrator along a patterned surface on the screen, you will feel some smooth vibrations on your nail and when you move your finger along say a pebbled road, the vibrations will be stronger. Using this interface, any kind of visual information can be presented with real time tactile feedback. This can be helpful for visually impaired people in surface recognition.

Research from IIT

IIT itself has so many department and the Techfest provides a perfect platform to showcase some cutting edge research happening in these temples of higher education. Each department had a stall demonstrating their research projects.

Industrial Design Centre exhibits

This is one stall that drew a lot of oohs and aahs from the crowd. Well why wouldn't it. There were some really crazy design models on display here like the amphibious bike, the bicycle that can be rode while you are in a sleeping position, a Devanagri script app for typing in regional language on a touchscreen mobile phone.

The amphibious bike concept displayed at the IDC stall

Robotic Art

Imagine an exhibition where the artist is a robot. Don't fall off your chair, as this is exactly what we were greeted to on the Robotics Action Painter(RAP) stall. The ISU robot developed by artist and artificial intelligence enthusiast, Leonel Moura, uses artificial intelligence algorithms to paint and determine when the work is done. It also signs off after its artwork is complete. The robot starts randomly and gradually evolves to generate colour clusters.

It was at work when we visited the stall and the artwork involved writing alphabets one of top of the other across a large chart paper. What fascinates you is the fact that the robot is not programmed to sketch, but does so of its own volition. It was eery at the same time.

Fun at the Techfest

IIT Techfest is not just about academics. Fun element is paid special attention to as well. Performance artists from around the world showcased their goods here. BMX stunt biking by an India stunt biking group called Team Gear grabbed a lot of eyeballs. From Belgium descended a group called the Double Dutch Force whose dance performance with two ropes left us impressed. Yeah, this is the same group who has performed those insane skipping-rope stunts in the song 'Rise Up' by house artist Yves Larock. If you haven't seen that video already, please do.

That's it for this year's coverage. Do not forget to catch more videos from the Techfest in Digit TV in the Digit Omega DVD .

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Opera on tablets
A short teaser video of their upcoming Android browser for tablets was revealed at CES. Here's the video: http://bit.ly/dRalJ5

Tegra 3 coming soon
After Tegra 2 was hailed as one of the stars at CES 2011, the new four core chip from NIVIDIA is speculated to be launched at the upcoming MWC

CES 2011
Tech overdose

Find out what went down in the world of technology at the year's biggest technology event – CES 2011 Las Vegas

Every year, the biggest names in technology descend upon the sparkling city of Las Vegas to launch some of the most awaited, innovative, and incredible products the world has ever seen. This year was no different. More than 20,000 innovative products from 2,700 technology companies dazzled 140,000 attendees at CES 2011. In the following pages we bring you all the buzz from this technology dreamland.

Steve Ballmer's keynote at CES 2011

Some of the highlights of CES 2011 are the speeches by the big-shots of consumer electronics, often introducing new technologies while giving us a fresh perspective on year that flashed by. Microsoft CEO Steve Ballmer's opening keynote speech was one such, and he spoke about everything from how great 2010 was for Microsoft to enhancements to the company's latest offerings, Windows Phone 7 and Kinect for Xbox 360.

Calling it a "very, very exciting year" for Microsoft's customers, Ballmer spoke about how well his company's products did this year, with new arrivals like Windows Phone 7, Office 2010 and Kinect for Xbox 360 taking the market by storm, how online services like Bing and Azure have seen wide-scale adoption, and how successful Windows 7 – the company's latest operating system that was released in late 2009 – has been. Ballmer also talked about the massive consumer and industry interest in products that were previewed in 2010, such as the upcoming Internet Explorer 9 browser and Office 365 online productivity suite. He of course, did not talk about the failure of Kin.

The entire scope of the massive company's plans for 2011 was obviously not the goal of Ballmer's keynote, but "just scratching the surface", he did drop enough hints about the coming months and upcoming products to give us a fair idea of the year ahead.

Balmer at the Microsoft Keynote Address

Apart from talking about how a new version of Windows was being made to support System-on-Chip devices of all types, both ARM-based and x86-based, Ballmer had a lot to say about Kinect and its future in entertainment, as well as the next generation of Microsoft Surface and the upcoming enhancements to Windows Phone 7. Some mention was also made about the great performance of Windows 7 and Internet Explorer 9 with the latest Intel Sandy Bridge and AMD Fusion CPU/GPU hybrid processors.

Some technology was also previewed on Acer's dual screen Iconia tablet and Samsung's Oak Trail-based netbook – the PC7 Sliding series, which were later officially announced by the companies, of which we will bring you more coverage soon! The Asus Windows 7 tablet (Asus Eee Slate EP121) was also previewed here, emphasizing Windows 7's mature touch interface, and the power of a full-blown operating system on tablet and netbook devices.

Kinect and Xbox 360

Most of the news regarding the Kinect was not very applicable to India, talking about the how the controller-free gesture

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TV Har
You attach your phone and an inbuilt magnifying glass enlarges the picture inches from your eyes. Makes you look like Huckleberry Hound though.

I can haz Karotz
This smart rabbit showcased at CES can play music, give you weather updates, and even respond to voice commands.

and voice control interface was supported by digital content services like Zune, Netflix and Hulu Plus. However, the potential for such an interface is still globally applicable, and maybe 2011 will see Microsoft tying up with Indian service providers to make the Xbox 360 a digital content platform for us as well.

Ballmer also introduced the Avatar Kinect feature, which creates a real-life simulacrum Xbox LIVE Avatar for subscribers using the 3D camera and its facial recognition technology. This technology will also allow the Avatar to reflect not just the person's movements, but also their facial expressions.

Wrapping up, Ballmer spoke about the Kinect and Xbox 360's road ahead:

"You're going to continue to see more fun, more entertainment, and more innovation from our Xbox team in 2011. Xbox today is going where no gaming system has ever gone. Your Xbox is becoming the hub of your living room. It is your gaming system, but it's your movies, it's your TV shows, and it's your sporting events. It's your social interactions, all delivered directly to the biggest screen in your house."

Windows Phone 7

Though the latest Windows mobile operating system has been received with much excitement, there are certain relative shortcomings that are a bit galling in this day and age, from the lack of Bluetooth file transfers to the lack of video calls, true multitasking, copy/paste and Flash/Silverlight in the browser. Most of these omissions will probably be rectified in the coming months with Microsoft's admittedly frequent updates, if only to play on a level field with Android and iOS, forget catching up.

Ballmer announced Microsoft will be releasing a series of Windows Phone 7 updates over the next few months, and these will bring features like copy/paste, improved multitasking performance, improved camera and OneNote access, enhanced lock and Start screen interface, better Bing integration, increased language support, and more. Unfortunately, what exactly will be present in these updates probably won't be revealed until each is available, so don't hold your breath. Many new games were also announced, as well as the speed at which the app store was growing at, which is now up to 5,500 applications.

We're entering a new era of technology for consumers where you'll be able to use Windows anywhere you go, from the small screen to the big screen.

Ballmer gushed on about just how optimistic he was for Windows Phone 7's future, saying:

"When I get a chance to show people a Windows Phone, the feedback that I hear is very, very gratifying. People tell me how snappy it is, how easy to use, how personal it really feels, and perhaps as importantly, all-in, simply how beautiful it really looks."

Microsoft Surface

When Microsoft's Surface was first introduced in 2007, it was met with much excitement, and according to Steven Spielberg, its early concepts were inspiration for Minority Report's futuristic gesture based interface, and not the other way around. It was launched for commercial use in mid-2008, though it only saw adoption by some major companies, as it was, and is still, prohibitively expensive.

Ballmer wrapped up his keynote speech talking about the next generation of Microsoft Surface, where the LCD screen-table will be able to "see" without the use of cameras, using PixelSense. This new technology was created in partnership with Samsung.

The new screen technology is apparently a "major step forward in the surface computing category", and manages to incorporate the original aims of original Surface product (direct interaction, multi-touch contact, a multi-user experience, and object recognition), endowing it with the ability to recognize fingers, hands, text, and even objects, as well as giving it a more flexible form factor. The Surface PC or Samsung SUR40, will now be used in much smaller form factors than tables, such as kiosks. New adopters of the technology were also mentioned.

Qualcomm flashes MSM8660 Snapdragon at CES 2011

2011 marks the year that promises to bring the performance war from desktop computers to cellular devices. And to this end, the likes of Qualcomm, Samsung and Texas Instruments have been slugging it out for awhile. The race for a 1 GHz-plus, mobile CPU, as well as multiple cores is set to reach consumer shores this year. Although the MSM8660 – Qualcomm's latest SoC – had been announced for a while, CES 2011 was the stage chosen to demo it. This SoC consists of two ARM Cortex-A8 cores, (Qualcomm calls them Scorpion cores), and a 45nm, Adreno 220 GPU. The CPU cores run at a blistering 1.2 GHz. Adreno is a name given to the Z430, that was developed by Imageon – the mobile graphics department

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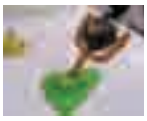
Be a HeadCase

An iPod skin that can open bottles! It's an actual product that costs $29 seen at CES. An app that goes with it makes sounds every time you pop open a bruski.



Real life angry birds

Spotted in one of the corners of the CES floor was an angry birds board game complete with an actual slingshot and bird/pig action figures.

of AMD, that was bought by Qualcomm. In fact, 1.5 GHz parts have been sampled, and are market ready. We hope the mobile CPU market doesn't fall prey to the delusion of more-power-is-better, for there is no end to that roller-coaster ride.

So what does the MSM8660 do for us? And how exactly do two 1.2 GHz cores benefit your cell phone? How about 1080p video recording capability, and 1080p decoding ability along with the power to decode multiple-channel surround sound audio? Add to this a 5-inch, Super LCD display, and it's goodbye HDTV. Well, not quite, but this is heady stuff – we're being given more power in the palm of our hand, than our desktops had a mere six years ago. Snapdragon SoC already has baseband modem chips inbuilt, saving on the need for third party silicon – an additional plus.

Qualcomm had a lot to show off about their new SoC. What followed was a barrage of physics-enabled games, video conferencing between multiple parties and high-definition stereoscopic 3D video – all to demonstrate the prowess of the two Scorpion cores and the Adreno 220. All of this was on display on a simple square handset, sans any frills. Obviously, this was just to showcase the hardware underneath the phone, before handset manufacturers design shells around this powerhouse. We should see the MSM8660 in action later this year, as several handset manufacturers will be itching to drop this into their devices. The MSM8260, the same SoC design, minus the CDMA element, has already been announced for the ASUS Eee Pad Memo, a 7-inch tablet, running Android. Claims of better lower power consumption and therefore better battery performance (owing to two cores sharing the load and working less than a single core in the process) are extremely promising. More for less seems to have gotten everybody's attention. We'll be doing a feature on mobile computing, and where it's headed, in the near future – watch out for it.

iPad 2 case spotted at CES

Close on the heels of iPad 2 rumours doing the rounds of the tech world, an iPad 2 case was spotted at CES. Engadget managed to get some photographs of the alleged iPad 2 case which had housed a mockup iPad 2 within it. Dexim, which makes Apple accessories is the company behind this case. The case seems to confirm some rumours around the iPad 2 as it has a back facing as well as a front facing camera hole. The mockup iPad 2 was also found to be slightly thinner than the iPad that was offered to be placed in the case, thus confirming the rumour of a slimmer iPad 2.

The unique thing about the case is the ability to house a Bluetooth keyboard which

The purported iPad 2 case

Tweeting Fridge from LG
Tweeting is definitely overkill, but the Fridge features an LCD touch screen where you can write reminder notes, and it pulls up important events from your Google calender too.

40% Tweeting...
Happens from the cell phone, revealed Twitter CEO Dick Costolo at CES. Not that surprising, but is surely an indicator of a fast emerging trend.

can be attached to the flap facing the one holding the tablet. You have the flexibility to choose between a physical keyboard or just stick to the touchscreen. Rumours around iPad 2 cases have also been floating around for quite a while now. Commercial sites like Alibaba, which had images of such cases, were requested to remove the information about the cases. But the confidence to actually showcase a tablet case at CES, when the tablet itself is yet to be launched, does give some weight to the rumours around the iPad 2 design.

Motorola Atrix 4G

Motorola introduces 2011's first superphone with Atrix 4G

According to numerous industry experts and journalists, the Acer Iconia Windows 7 dual screen tablet and the Motorola Atrix 4G are some of the hottest things to have come out of this year's CES 2011, and are the most loved stars of the show. While we have already spoken about the innovative Acer Iconia and its dual-screen laptop form factor, the Motorola Atrix 4G is certainly not lacking in innovation. Currently running Froyo, the Atrix will get an upgrade to Gingerbread soon.

While it is just a phone (though some would beg to differ), the Atrix 4G is supremely well-endowed, and, comes with exciting accessories in the form of docks, which convert the phone into something more. Let us start with the specifications: 4-inch (960x540) Gorilla Glass capacitive touchscreen with qHD rating and 24-bit colour, 1GHz dual core Nvidia Tegra 2 CPU/GPU, 1GB RAM, 16GB internal storage (expandable to 48GB with microSD card), 5MP rear camera capable of 720p HD and front-facing VGA camera for video calls, 2.4GHz and 5GHz Wi-Fi 802.11n support, dual-microphones for active noise cancellation, and a massive 1930 mAh battery. All this madness, squeezed into less than 11mm of thickness.

The phone's docks include:

1) Motorola HD Multimedia Dock, which gives users the flexibility of docking their phones with three USB ports and one HDMI, perfect for connecting it up to a TV, keyboard, mouse, speakers, all at the same time.

Motorola HD Multimedia Dock

Motorola Laptop Dock

2) Motorola Laptop Dock, the more revolutionary one of the two, and perhaps what makes the Motorola Atrix's form factor totally ridiculous...the dock is basically an ultralight and ultrathin laptop without a CPU. It has an 11.6-inch screen, and a full-sized keyboard, along with stereo speakers, and a 36Wh three-cell battery which is rated to delivers up to eight hours of battery life. Total weight, including phone, is approximately 1 kg. Many tech blogs who have had a chance to use the device in this dock have gone away giddy with excitement, claiming superlative response times with no perceptible lag, as well as a great environment for web-browsing.

Announced on AT&T currently, there is no news of a global release anytime soon, but hey, we can hope can't we?

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Super slim Sony Ericsson Xperia unveiled

Looks like Sony and LG are battling out on the slimness quotient once again, and this time, it is with phones instead of television sets and LCD panels. While LG just announced the LG Optimus Black, Sony Ericsson introduced the world to its super slim Xperia arc phone, which is apparently just 8.7 mm tat its thinnest point. One of most anticipated devices of the season – the arc made it official with 4.2-inch screen and Gingerbread. Featuring an extra wide capacitive (with multi-touch) touchscreen, the Xperia arc touts SonyEricsson's new 4.2-inch Reality Display, which boasts of a Mobile Bravia Engine for optimal viewing pleasure.

Xperia Arc

50 Cent Headphones
No they're not priced for that much but hip hop star 50 Cent launched them at CES. The specification on these wireless cans are quite good too.

Intel shows off
Demonstrate Sandybridge power on six huge pillars with eight foot LCDs on which CES-goes could play around with some crazy interactive graphics

Other features include a 1 GHz Snapdragon processor, and an 8.1 MP camera that's powered by Sony's Exmor R sensor (apparently great for low-light coupled with the phone's f/2.4 lens) and capable of 720p HD video recording as well.

No word on the pricing, but SonyEricsson has said it will hit markets globally in Q1 2011.

Acer introduces loads of goodies

Some of the most exciting gadgets to come out of CES 2011 were Acer's bunch of tablets, netbook and laptop hyrbids, which included the Acer Iconia laptop and the Iconia Tab A500. Acer also introduced two new Android phones.

Acer Iconia

First shown off in November last year, the 14-inch dual screen (multi-touch, and 1366x768 resolution) laptop product was demo-ed in all its glory at CES 2011, and runs Windows 7 Home Premium (64-bit) on a full-fledged mobile Core i5 processor.

Configuration options include Intel Core i5-480M / 560M / 580M for the CPU, up to 4GB of DDR3 RAM, integrated Intel HD graphics, VGA/HDMI/SPDIF as well as USBO 2.0 and 3.0 ports, choice of 320/500/640/750GB HDD. Other specifications include an integrated CrystalEye webcam (1280x1024 resolution) and microphone, 802.11b/g/n Wi-Fi and Bluetooth 3.0+HS, as well as integrated 3G WWAN and gigabit Ethernet. The whole thing is powered by four-cell battery, weighs about 2.8 kilograms.

As you would expect, this monster device will not be cheap, and will probably retail for about ₹1,00,000, if the $2,000 price tag is anything to go by.

Acer Iconia Tab A500

There is another Acer Iconia, and this one is called the Iconia Tab A500. All tablet, no dual-screen, the Iconia Tab A500 runs a version of the Google Android operating system with Acer UI 4.5 skin on top of it. For now, it has not been specified whether this is Gingerbread, Froyo or Honeycomb. So, while not too much is known about it, it is still a pretty exciting tablet,

Iconia Windows 7 Laptop

and can be direct competition to some of the other Android tablets introduced at CES, including the Motorola Xoom, and the Notion Ink Adam.

Known specifications include: 10.1-inch multitouch screen, NVIDIA Tegra 2 as the CPU/GPU, a gyroscope for gaming, and 1080p HD video output via the built-in HDMI port. For now, the tablet is going to be released in partnership with Verizon, with a built in 4G LTE network adaptor. However, we might see a Wi-Fi only or 3G version hitting global shores soon enough.

Acer Froyo Phones

Acer certainly has been busy this CES, and apart from tablets, laptops (more coverage soon) and hybrids, has also announced two new phones, due to release in March and April.

Robot Balls
Sphero, robotic balls that you control with an iPod or Android phone, were all the rage at CES this year. Everyone wants to get a pair of balls now.

Two wheeled car
GM's EN-V (Electric Networked Vehicle) a tiny two wheeled car, dazzled audiences with it's Segway-like balancing technology and futuristic design

The first of the two is the Acer Liquid Mini, which is a smaller version of its predecessor, sporting a 3.2-inch screen (480x320), 5MP camera capable of 480p video, 600MHz Qualcomm 7227 processor, 512MB of RAM and ROM, as well as DLNA/Wi-Fi/Bluetooth/GPS/FM radio connectivity.

Liquid Mini and beTouch E210

The second, beTouch E210, runs on Android Froyo as well, and unconventionally is a full-QWERTY Android phone. It comes with a 2.6-inch screen (320x240), 3.2MP camera, 416MHz ST Ericsson processor, 512MB ROM and 256MB RAM, trackpad, as well as the usual connectivity options.

Motorola Xoom: Android Honeycomb tablet unveiled

If 2010 was the year of the tablet (well maybe just one table – the iPad) then we can comfortably assume that this year we would be looking at hoards of new tablets, each claiming to be the new iPad killer. Motorola triggered off the goldrush this year with its Android 3 (Honeycomb) based tablet – Xoom, at CES. The first tablet to feature Android's Tablet specific OS, Xoom clearly stole the lime light and was awarded the best new gadget in the expo. Announcements aside, we're eagerly looking forward to its launch in Match 2011.

The most awesome part of its specs is the Nvidia Tegra 2 dual core processor and 1GB RAM which is a first for any tablet. With its advanced processing power and Flash support it's speculated that Xoom can easily beat the iPad. It features a 5 megapixel front camera and a 2 megapixel rear camera video chat and video conferencing and would be available in 3G which can be upgraded to 4G with firmware and software updates.

The Xoom comes with a built in 32 BG memory and is upgradeable to 64 GB using a micro SD card. Viewing HD videos on its 10.1inch 1080p screen would be a delight. The software features too seem endless. Demo videos showcase a Google e-book service that has a fabulous browsing system. The widget for the e-book reader can be pulled to the home screen and books can be browsed right there. In fact most content on the home screens is dynamic this way – you get to do so much right there without ever needing to launch the application. There's a revamped Google Maps application that works beautifully with multi-touch. It will have vector images instead of bitmaps and users would be able to use more than two fingers to switch instantaneously between 2D and 3D views. However one of the strangest things was that all this was demo-ed on the CES floor by Motorola reps and booth babes. If you were around and asked them if you could hold the device, play with it, you'd most likely have got a simple "no", suggest reports. Something's fishy right? Well we hope not, because if it really performs as much as the buildup, it's going to be one formidable product.

Windows to ARM itself on x86-based System-on-Chip devices

Before Ballmer's keynote at CES came the announcement that most of us were expecting – Microsoft is working on a new version of Windows for ARM based devices. To be specific though, Microsoft is currently developing a version of Windows that supports a variety of SoC (System-on-Chip) devices, be they ARM-based (like Tegra 2, Snapdragon, OMAP) or x86-based (like Oak Trail and Fusion).

The Moto Xoom

This could potentially make the Windows platform agnostic, as the announcement entailed the news that the support will be found with the "next version of Windows", presumably Windows 8. What seems more likely however is that there will be several trial versions for various architectures available earlier this year, before Windows 8 comes out in 2012. Microsoft might just decide to make a tablet/small form factor specific version though, just like it did with Windows XP. The goal is clear however, Microsoft wants to expand its domination on the PC platform to other form factors, from tablets to smart phones to netbooks.

In Ballmer's words:

"Windows has always been, and will continue to be, about the breadth of hardware and software applications and innovation. We're very excited about the full set of partners for the next version of Windows. NVIDIA, Qualcomm, and Texas Instruments are working on SoC designs based on the ARM architecture. Intel and AMD will continue to innovate on the x86 platform, including the new low-powered SoC systems that will be fully supported by Windows, and will include support for native x86 applications."

This support for SoC architectures will be full-fledged, extending to more than just the basics, but also to "printing and support for

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Taser Shotguns at CES
The bright yellow X12 shotgun, has a range of 82 feet and fires self powered electrical bullets

Induction power
A company used induction power to create innovative packaging for cereal boxes that lights up in stages

all of the hardware devices and peripherals." The announcement was accompanied by technical demonstrations by Microsoft executives Steven Sinofsky (President, Windows and Windows Live Division) and Mike Angiulo (Corporate Vice President, Windows Planning, Hardware and PC Ecosystem) of a hybrid version of Windows (retaining Win 7's interface, but showing wide support for both ARM and x86 based SoC architectures) across various platforms. The demonstrations showed off the capability of Windows, even in this raw form, to provide features such as hardware-accelerated graphics and media playback, hardware-accelerated Web browsing (on Internet Explorer 9), USB device support, and printing across platforms.

Microsoft is working with all the relevant "silicon partners", from ARM to Intel to Qualcomm and Texas Instruments, to make this platform agnostic and/or versions-for-everyone future possible.

Motion controllers specially for the PC

First there was Wii, then came PS Move and Kinect. More than revolutionising how people play games (using gestures), these technologies have just given console fanboys another point to strengthen their case. Since then PC users have been wondering when they will get to stand in front of their LCDs and jump up and down like monkeys.

Just at a time when we were planning to have a build-your-own-webcam-Kinect, comes news from CES that the same guys who brought us the technology behind Kinect (PrimeSense) are now teaming up with none other than ASUS to create a controller-free experience for Windows-based PCs.

The platform christened Xtion Pro, will be showcased this week at CES 2011 in Las Vegas. The ASUS WAVI Xtion device will use ultra-wide band wireless link and PrimeSense 3D sensing solution to bring controller free interaction to the PC and hey, why not motion based gaming too? It may have other applications too. As a media centre device it's not hard to imagine using a flick of the hand to change a channel instead of fiddling around with wire-less keyboards or mice.

To support the ecosystem, ASUS is also planning to open up the 3D Sensing Development platform to allow developers to create their own gesture-based apps and software.

Canon's revelations

Canon's CES 2011 seems to be in sync with the Photofair 2011, contributing to the grand pre-release announcement of PowerShot octet in unison. While the CES 2011 saw some surprises up its sleeve, the Photofair 2011 (ongoing at Pragati Maidan, Delhi) does not seem far behind in this mad race for the market share. Canon has made it doubly sure, by offering some innovative and technologically advanced features at the Photofair 2011; such as the HS system (Hyper-sensitivity sensor) and the Digic 4 image processor for that super-fine image clarity & low sensor noise. Let's take a sneak peek at some of the interesting compact digital cameras that were unveiled on this occasion.

Canon's CES 2011 PowerShot quartet includes: A800, A1200, A2200 and A3300 IS. Venturing into the sub $100 domain, the A800 makes an impact with the 10 megapixel sensor, VGA video with blur reduction, and a 2.5-inch LCD. We could not have asked for a better bargain at a selling price of $89.

Canon Vixia HF G10

The PowerShot A1200 inherits the hardware specifications from its elder sibling the A2200, with the exception of dropping the sensor to 12.1 megapixel and removing the discrete mode that acts as a silencer to shoot more quietly. It also includes a tiny optical view finder for the geeks. Moving up the hierarchy, the $139 A2200 dazzles with the creative filters, 720p HD video, and discrete mode along with a 14 megapixel sensor, 4x optical zoom, and a 2.7-inch LCD. Finally, the big brother - $179 A3300 IS outsmarts its siblings with a 16 megapixel sensor, 720p HD video, 5x optical zoom, a 3-inch LCD, an array of creative filters including "toy camera" & monochrome, and the discrete mode.

Well, if you were wondering about the odd Mr. X, we are talking about the muscular flagship camcorder - the VIXIA HF G10 making headlines with the HD CMOS sensor and manual focus. Its key specifications include: approximately 2 Megapixel (i.e. 1920 x 1080 resolution) HD CMOS sensor, a 10x optical zoom, manual focus ring, 3.5-inch touch-screen LCD, 32GB internal memory, dual SDXC slots, cinema filters. It is expected to hit the stands at a steep price of $1499 in March 2011.

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Shufflr, Indian based startup offers online video services

If you're bored for lack of videos online, and are just too tired to search online, look no further. Described by its developers as a "social video browser that helps discover online videos using your social graph", Shufflr helps you find, share and collect videos from across the web.

You can browse through videos shared and liked by your friends on Facebook, Twitter and other contacts using Shufflr's Adobe AIR-based video browser. Additionally, Shufflr uses "SMART" filters to recommend online videos from all over the web, including YouTube, Hulu, MetaCafe, Comedy Central, New York Times, depending on your personal preferences.

After you enjoy a video and have rated it, Shufflr will recommend a list of videos using its "SMART association engines" that present similar videos.

This social video browser, developed by Althea Systems – an India-based startup, acts like a platform for you to discover, view, share and collect videos from all over the web. Apart from watching videos that your contacts on Facebook and Twitter have shared with you via its social video feed, you can follow also follow other people Shufflr recommends to you. These recommendations are based on similar tastes, and viewing patterns and preferences.

On the downside, what this also implies is that Shufflr collects information about you as well, and lets other Shufflr users see what you're watching. If that really isn't your cup of tea, then you can still go ahead and watch a video anonymously.

Other significant features include intelligent search. This uses information from your profile related to what you've searched and liked before, and improves search result relevance. Shufflr has been around for more than six months now, having launched in mid 2010, and has been meeting much success lately, in no small part due to its simplicity and speed of getting started. The AIR-based GUI is quite intuitive to use, and not too demanding of your system. The download itself is quite lightweight, about 3MB, but requires AIR installed on your system before hand.

Intel Insider: get Hollywood and Bollywood digital content on your PC with Sandy Bridge

After Intel launched Core processors last year, it has now launched its new line of Sandy Bridge processors and associated video/graphics. It has now gone a step further and arranged for HD content for its digital content service.

Subscribers of Intel's Insider service will now be able to download, purchase or rent movies and videos in full 1080p HD quality, and view them on their 2011 Core-powered laptops and desktops. Since Intel Insider supports Wi-Di 2.0 (Wireless Display) technology, you will also be able to wirelessly stream content from your laptop to your HDTV.

Intel has tied up with major players such as CinemaNow, Dixons Retail, Image Entertainment, Sonic Solutions, Warner Bros. Digital Distribution, as well as Hungama Digital Media Entertainment to deliver content to its customers.

While it still not clear whether the content will be hosted on an Intel Insider portal or available from certified sites, you can be sure that Intel will be able to entice more content providers in the months ahead. What Intel is probably looking at is "End to End Hardware Protection". Simply put, your purchased/rented content is hardware locked to your computer.

This also entices providers and distributors to release HD video digital content on the same date (or even earlier) as DVD/Blu-ray releases.

According to Intel, "Commercial distribution of HD premium content using the Intel Insider technology is expected to begin during the first quarter of 2011, and services will be available in Q1." Although we're still waiting for the widespread adoption of DTH services in India, we're looking forward to this one.

Chrome Web Store, now open

The Google Chrome Web Store is now open for business. In this web store you can browse, discover and purchase web applications in a way similar to the Apple AppStore or the Android Marketplace. Applications in the market could be anything from glorified bookmarks to offline applications.

The decentralised nature of the internet could work well with information, and data sharing. The web needs a directory of applications. The good news for RIA developers, however, is that the Google Chrome Web store might just be it. Web Apps developed for the Google Chrome Store have a similar mechanism for development and delivery as Google Chrome extensions, and are delivered in the same zipped CRX package with an application manifest, and data. The experience of browsing for and installing a web application is also similar to installing a Chrome extension. You simply browse through the Google Chrome Web Store, find an application you like and click on "Install". If the application is a paid product, then there is an intermediary step in which you pay for the app / service.

Here lies another advantage of the Google Chrome Web Store. You can sell web applications similar to desktop applications. You can sell to users Flash or HTML applications that install on the users computer instead of running through a site. With paid applications tied to a particular browser, users will quickly become limited to Google Chrome after they have made a few purchases, and will not be able to take advantage of latest developments in other browsers.

In the meanwhile, Mozilla has its own plans for a completely open web store ecosystem that, unlike Google's Chrome Web Store, is not tied to any browser. Mozilla's concept goes beyond any single store or single provider, but aims instead to be, like the internet – decentralised.

Mozilla continues to refine its plans as Google's store goes online. The Chrome Web Store is an interesting concept that takes web applications forward. We look forward to further developments in Mozilla's Open Web Store concept.

DARPA developing optical fibre alternative

So far, optical fibres are the pinnacle of data transfer performance across large distances, but DARPA wants to move a step further and has commissioned Raytheon BBN Technologies to develop a new photon-based optical network.

The new system promises to be able to deliver very large amounts of data much faster than today's optical networks, and in fact, can even send between Earth and space.

Scientists at Raytheon BBN Technologies are hoping to be able to use free-space optical (FSO) communication to its maximum potential. These are types of lasers that can transmit and receive data between two points, without them being connected physically by fibre optic cables.

Google Chrome to abandon H.264

Google has taken a huge step forward for an open HTML5, by deciding to abandon support for the H.264 video format in their Google Chrome browser in the future.

HTML5 and related technologies are supposed to be a big step for an open web, as they put a number of features at the disposal of web developers that were previously only available through plugins such as Google Gears and Adobe Flash.

Due to the lack of a suitable open codec earlier, the HTML5 specification left out any mention of a recommended codec. Consequently, different web browsers offered support for different codecs. Firefox and Opera stuck to the open formats by offering support for only Ogg Theora video, while Google offered support for both Theora and H.264. Safari on the other hand supported only H.264 video. This meant, that for a web site to reach users on all browsers, the video needed to be available in both Theora and H.264, since no single format worked on all browsers.

Since then, Google has released the WebM / VP8 video codec as an open source format and standard for free use. They also started encoding a majority of their YouTube web videos in the new format. Opera, and Google Chrome now both support the WebM format, and Mozilla will support it in Firefox 4. Microsoft will only support H.264 in their upcoming Internet Explorer 9 browser. Adobe, too, declared that they will include support for VP8 playback in their Flash Player in a future version.

While VP8 might still lags behind H.264 in quality, it is a suitable replacement for the purpose of the web, and is a much better codec than Theora. Once Firefox 4 releases with VP8 support, VP8 will be the most widely supported web video format for HTML5.

By removing support for H.264 video from Google Chrome, Google is not only saying that VP8 is way to go for web video in the future, but also that H.264 is not the way to go.

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With Kinect hacks abounding, Microsoft vows official PC support soon

G'Five mobiles gets 21 new phones into the market

G'Five has launched 21 new and as always competitively priced models into the Indian market, hoping to take it by storm.

Introducing features such as pico projectors, flip-QWERTY form factors, dual LED torch, motion sensors, navigation wheels, dual-embedded speakers and Yamaha amplification chipsets, each of the 21 mobiles try to be unique in its price and form factor classes.

Speaking on the occasion of the launch, Arshit Pathak, Managing Director, Kingtech Electronics India, G'Five International's Indian daughter company, differentiated G'Five's phones from other low-cost products in the Indian market by stressing on their build-quality, and from our brief hands-on with the devices, we'd have to agree that these were certainly well-built phones.

(l-r) Arshit Pathak, Managing Director, Kingtech Electronics India Pvt. Ltd, Jeff Zhang, President, G'Five International Ltd.; and Doris, Executive Assistant to the President, G'Five International

Crediting G'Five's manufacturing capacities and subsequent economies of scale for its ability to offer great quality at low-costs, Pathak added that their intention was not to undercut competitors, but to offer great value for money. More advanced devices such as smartphones can be expected from G'Five in India soon as well as, with possibly even tablets and netbooks (both seen at the launch) in the offing.

Tablets from CES: Asus, Samsung, Motorola...

Asus promised the world a lot of tablets at Computex 2010, and several of these were due by the end of the year. Not many days into 2011, and just before the Consumer Electronics Show officially kicked off, Asus has delivered, announcing four new tablets, complete with images and specifications.

Three of these four tablets run on Android 3.0 Honeycomb and Nvidia Tegra 2, while the Asus Eee Slate EP121 features a full-fledged version of Windows 7, and runs on an Intel Core i5 processor! The other three tablets aren't left wanting either, each boasting of dual core processors from Qualcomm and Nvidia. The Win 7 tablet is expected at the end of January, while the Android tablets will only start shipping from April onwards. Form factors include slates, and even sliding and transforming tablet/netbook hybrids, and a couple of them even have support from Wacom digitizer pen inputs.

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Another interesting form factor, powered by Intel's latest Oak Trail Atom (Z670 1.66GHz) processor, also a SoC design, was Samsung's PC 7 Sliding series, a netbook that transforms into a slate. It weighs just around 1 kilogram, and has a 10.1-inch screen with 340 nits of brightness and a 1366x768 pixel resolution. Other specifications include 32GB/64GB SSD options for storage, 2GB of DDR3 RAM, USB and HDMI ports, 4-in-1 card reader, ambient light sensor, and an integrated 1.3 megapixel web cam, apart from Windows 7 Home Premium. It will apparently be able to boot up in under 20 seconds, and a WiMAX model will also be available. Its 6-cell battery will supposedly give it a battery life of 9 hours on a single charge.

Motorola had announced it would be bringing the latest version of Android, the tablet-specific Honeycomb, out on its device first, at CES 2011. Enter the Motorola Xoom, also powered by a dual-core Nvidia Tegra 2 processor, and is further endowed with front and back-facing cameras, an HD widescreen, 1080p HD video playback, Adobe Flash Player 10.1, 3G and 4G connectivity, accelerometer and gyroscope built in for better gaming, as well as the latest 3D Google maps with GPS built-in.

Windows 8 – CPU agnostic - built for SoC and ARM

The most significant announcement by Microsoft recently was certainly that of developing the latest version of Windows supporting a variety of SoC (System-on-Chip) devices. This includes ARM-based (Tegra 2, Snapdragon, OMAP) and x86-based (Oak Trail and Fusion).

With Microsoft announcing support with the "next version of Windows", presumably Windows 8 due in 2012, the goal is clear – Microsoft wants to expand its domination on the PC platform to other form factors, from tablets to smartphones to netbooks.

The announcement was accompanied by technical demonstrations by Microsoft executives Steven Sinofsky, President, Windows and Windows Live Division and Mike Angiulo, Corporate Vice President, Windows Planning, Hardware and PC Ecosystem, of a hybrid version of Windows (retaining Win 7's interface, but showing wide support for both ARM and x86-based SoC architectures across various platforms. The demonstrations showed off the capability of Windows, even in this raw form, to provide features such as hardware-accelerated graphics and media playback, hardware-accelerated web browsing (on Internet Explorer 9), USB device support, and printing across platforms.

Microsoft is working with all the relevant "silicon partners", from ARM to Texas Instruments, to make this platform agnostic and/or versions-for-everyone future possible. Ballmer adds, "We're very excited about the full set of partners for the next version of Windows. NVIDIA, Qualcomm, and Texas Instruments are working on SoC designs based on the ARM architecture. Intel and AMD will continue to innovate on the x86 platform, including the new low-powered SoC systems that will be fully supported by Windows, and will include support for native x86 applications."

The hardware is not lagging behind, that's for sure, and is leading the wave of technological growth towards capable, sturdy, and power-sipping mobile processors. 2011 marks the year that promises to bring the performance war from desktop computers to cellular devices.

India gets two Windows Phone 7 devices, from HTC

Android is certainly the buzz word in the mind of India's urban consumer, and manufacturers and brands are bending over backwards to be able to provide the most inexpensive and best-selling Android phone in the country. Windows Phone 7 has officially arrived, and Taiwanese telecom major HTC has launched two handsets – HD7 and HTC Mozart, making their way into the Indian scene. Although India has had a pretty strong market for Windows Mobile in the past, we're waiting to see how it accepts the latest and improvised mobile offering from Microsoft and its partners.

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PSP phone
The rumoured Sony PlayStation Phone made its way all around China, revealing all

More from Sony
Ironically, the PSP2 might release before the much leaked PlayStation Phone

Dual core phones, getting smarter by the day

Lots of dual-core powered phones also made their way into the global consciousness at CES, though LG had beaten everyone to the punch with the LG Optimus 2X announcement earlier in December 2010. LG has now expanded its Optimus lineup of smartphones further by introducing the LG Optimus Black, making headlines this time around for its super slim form factor (9.2 mm that diets to 6 mm at its thinnest) and its new NOVA display.

The display is appropriately named, providing a night-sky obliterating 700 nits of brightness on its 4-inch screen. A little contrary to the theme, but no less appreciated, is its claimed 50 per cent better power efficiency, which when coupled with the phone's 1500 mAh battery, apparently gives up to 24 hours of usage. For now, the display's resolution has not been revealed. Designed keeping in mind the smartphone's credo of web browsing, the NOVA display is supposed to consume less than half the power required by AMOLED technology for the white gamut.

Running Froyo (v2.2) with Optimus UI 2.0 on board, the Optimus Black will apparently be eligible for a Gingerbread (v2.3) update somewhere down the line. Other features include an overkill first-of-its-kind front-facing 2MP camera, as well as another smartphone first - Wi-Fi Direct for quick data transfer between mobile devices.

Sony Ericsson is also battling for the crown of the world's slimmest phone, with its latest offering Sony Ericsson Xperia arc apparently just 8.7mm thick at its thinnest. Featuring an extra wide capacitive (with multi-touch) touchscreen, the Xperia arc touts Sony Ericsson's new 4.2-inch Reality Display, which boasts of a Mobile Bravia Engine for optimal viewing pleasure. Other features include a 1GHz Snapdragon processor, and an 8.1MP camera that's powered by Sony's Exmor R sensor (apparently great for low-light coupled with the phone's f/2.4 lens) and capable of 720p HD video recording as well.

Possibly the star of the show, the Motorola Atrix 4G is a device that has captured the imagination of a horde of technophiles with its capability and versatility. Certainly not lacking in innovation, it currently runs Froyo, but will get an upgrade to Gingerbread possibly even before launch. 'Just' a phone, the Atrix 4G is supremely well-endowed, and, comes with exciting accessories such as docks that convert the phone into something more. A quick look at the specifications usually leave some drool on the floor: 4-inch (960x540) Gorilla Glass capacitive touchscreen with qHD rating and 24-bit colour, 1GHz dual core Nvidia Tegra 2 CPU/GPU, 1GB RAM, 16GB internal storage (expandable to 48GB with microSD card), 5MP rear camera capable of 720p HD and front-facing VGA camera for video calls, 2.4GHz and 5GHz Wi-Fi 802.11n support, dual-microphones for active noise cancellation, and a massive 1930 mAh battery. All this madness, squeezed into less than 11mm of thickness.

The first of the phone's transforming docks is the Motorola HD Multimedia Dock, which gives users the flexibility of docking their phones with three USB ports and one HDMI, perfect for connecting it up to a TV, keyboard, mouse, speakers, all at the same time. The second, Motorola Laptop Dock, is probably the more revolutionary of the two, and perhaps what makes the Motorola Atrix's form factor totally ridiculous...the dock is basically an ultralight and ultrathin laptop without a CPU. It has an 11.6-inch screen, and a full-sized keyboard, along with stereo speakers, and a 36Wh three-cell battery which is rated to delivers up to eight hours of battery life. Total weight, including phone, is approximately 1kg. Those who've had their hands on have gone away giddy with excitement, claiming superlative response times with no perceptible lag, as well as a great environment for web-browsing.

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iPad 2 rumors
Once released this year the iPad 2 is touted to have a proximity sensor

CES 2011 *Special*

Razer Switchblade

Unveiled at CES this year, Switchblade is a concept hand held gaming device. For all those who strongly believe that the mouse-keyboard combo is the ultimate tool for any gamer, the design idea would surely bring a change in thought. The most coolest part is its dynamically changing tactile keyboard that changes as per the game requirements, transparent keys placed over an LCD panel make this possible. So you would have different key settings for an FPS over an MMORPG game. It's got a multitouch 7-inch touchscreen with HDMI ports for those moments when you want immerse yourself on a much larger gaming experience.

In 2004, the Nintendo DS' two screens (one of them touch sensitive) and Wi-Fi compatibility was truly a thing of the future.

Zikmu Parrot

Zikmu Parrot speakers are a blending combination of inspiration and cutting edge DSP technology. Designed to dock your iPod and iPhone the Zikmu range of speakers pride themselves in delivering flawless stereo imaging. One look at them and one would think that Zikmu has beaten Apple in design creativity. The speakers are given the shape of a loudspeaker and at the bottom hides a powerful woofer in downfire position which is equipped with a neodymium magnet giving maximum performance in minimum space. With its Wi-Fi compatibility you can stream all your music from a PC or MAC, the speakers can be positioned anywhere in the room as they communicate with each other using Bluetooth. Flaring red Zikmus were launched at CES this year. Get your cool Zikmu Parrot set for $3,000.

Last time we featured such an offbeat design in speakers was way back in October 2007. Elemental Design D1 were shaped like a cube.

Amazon gets some loving

European equivalent of Netflix, LOVEFiLM.com would be acquired by Amazon giving them a better foothold in the continent

Nokia Ovi tops the charts

The Nokia Ovi Store is the most popular app store in China, beating 13 other app stores currently available in the country

Sony HDR-PJ50V

Sony announced their PJ series of camcorders at CES this year. This particular series of handy cams would feature a built in projector in them. The HDR-PJ50V houses a projection lens on the opposite side of the LCD. It can project images upto 60 inches when placed 18 feet away from it. But wait there's more, it has built in stereo speakers with S-Master digital amplifier making it perfect for outdoor screenings, features large storage capacity of 220GB, built in GPS and USB ports, 1080p HD recording is now a standard norm in handy cams but the HDR-PJ50V records videos in 24 Mbps which gives sharper and crisper images. It uses a wide angle 12x optical G lens and a 17x Extended Zoom. No word about the price as of yet.

The JVC Everio GZ – HD7 with its 1080 HD recording capability was enough to make us drool in February 2007

Casio Tryx

With its quirky design and looks the Casio Tryx is like a breath of fresh air in the overly clogged point and shoot camera segment. What sets the Tryx apart is its shape shifting ability giving the user different options to hold and shoot with it. It can be held as a camcorder when opened out of its 360 degree rotating swivel design, it can be placed as a tripod as well when kept in a triangular position and can be used like any another digicam. Launched at CES this year, Tryx is packed to the brim with a 12 mega pixels backlit CMOS sensor, wide 21mm lens. It shoots in 1080p video and is capable of shooting 360-degree panorama and in slow motion. Available by April this year.

Fujifilm Axia Eyeplate featured in September 2002 was only 6 mm thick and had a whopping 8 MB memory (Pun intended)

Samsung BD D7000

The size of the Blu-ray player has gotten smaller each year, however this time around at CES Samsung has outdone every one with its ultra small Blu-ray player the BD 7000. Uber compact in size the BD 7000 has touch sensitive control panel and can be mistaken for an external DVD drive easily. It's WiFi and 3D compatible and can convert 2D to 3D. With access to Samsung apps you can now stream and enjoy multitude of media streaming services like YouTube, Vudu, Netflix, Twitter and more. Another cool feature iis Samsung's Smart Hub service which makes recommendations based on your choice of streaming content.

Back in October 2003, we were bowled over by Sony Psyc DVP-PQ1 DVD Player's ability to play MP3's.

Amazon's grocery delivery
Amazon is doing an internal testing of a free grocery delivery service in the USA and the program goes by the name AmazonTote

NFC on iPhone 5 and iPad 2
Near Field Communication, a short range high frequency wireless communication is rumoured to be found on iPad 2 and iPhone 5

Why Indians don't buy online?

Anoop Verma
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By nature most Indians are not inclined towards a profligate lifestyle; we would rather save money than splurge. So how do online retailers make a mark in a nation that is so fiscally conservative? There are no easy solutions in sight

Perhaps, it is justified to compare online shopping with online dating. After all, only those of us, who have experience of the Internet and are trustful of the way the myriad online entities are managed, will be inclined to discover a new relationship or strike a new bargain through a click of the mouse. In Western countries, online dating is considered to be a phenomenal success, but in India such websites have a rather lukewarm response. Same is the case with online shopping.

Indians might buy online once in a while, but bulk of their purchases always happen in conventional stores built from brick and mortar. On our Facebook community, we posted the question to our members if they preferred online shopping. The result was an engaging discussion. Gourav Kumar says, "People still prefer to buy in shops as they can see the product and talk to the shopkeeper." This might as well be true. Indians are convivial by nature and they might be less inclined to buy in situations where they can't have a direct interaction with the shopkeeper.

Shopping is not only about getting new things into your life; it can also be an activity with some social aspects. A walk into the neighbourhood shop, where you can exchange local gossip, might cheer you more as compared to sitting on your computer and tapping the right keys for making a purchase. But it is also true that online shopping saves you time and it might even be cheaper. Smiriti Khanna, a college student in Delhi, prefers to buy her books online. "Online buying is saving me time and money," she says. "Before buying any book, I can compare the rates from different websites and buy from where the prices are lowest." However, for buying everything other than books, she prefers retail outlets of the real world. "I won't think of buying a new dress online, or even a new electronic device," she explains. "You need to examine such items before buying. Shopping at a nice mall is much more visual and fluid and entertaining."

Ebay online is one of the oldest online shopping players

> **"People still prefer to buy in shops as they can see the product and talk to the shopkeeper."**
> **Gourav Kumar,** College Student

Are we innovative enough?

One of the reasons why many Indians don't find shopping online to be "visual and fluid and entertaining," as Smiriti has put it, is because a lot of exciting stuff is not even listed in the catalogue of our online retailers. We don't have any online retailer in India whose range of offers is even remotely comparable to what the likes of Amazon, eBay and Best Buy offer in western countries. If you look at the merchandise being offered by all these websites, then you can't stop yourself from having the feeling of déjà vu. There is not enough novelty and innovation happening to make the online shopping experience more satisfying, cheaper and entertaining for the consumer. In USA, during this holiday season, people purchased an average of four Ferraris online from eBay by using their mobile phones. That says a lot about the degree of trust that Americans have for eBay and other major online retailers.

The Indian consumer is deeply traditional in nature, and that makes it very difficult for even the most determined players to crack open the lucrative retail market. And it must be even tougher if you are an online retailer. However, during the past few years a large number of multi-brand online retailers have made a foray into the market. All of them have very mediocre results in terms of traffic, as well as orders. The entrants include eBay, HomeShop18, Flipkart, India Plaza, Rediff Shopping, Indiatimes Shopping, Future Bazaar, and few others. All of these companies are being backed by well funded industrial houses, which can afford to keep the online business going, in hope that few years down the line the elusive consumers will start arriving by the droves

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Volatile meets Non volatile
Researchers have developed a device that called dual floating gate FET, that can act as both volatile and non volatile memory

Hair on auction
When Britney Spears shaved all of her hair off in a Los Angeles salon in February 2007, her hair got listed on eBay for 1 million USD and saw some furious bidding

HomeShop18 is relatively new player

and lot of money will be generated.

In an ideal situation, the online space should offer an advantage to a new entrant, as compared to a traditional shop. This is because in online retail the shopping area is a 10-14 inch computer screen or the even smaller Tablet or mobile screen. You don't have to spend big bucks in acquiring prime real estate in centre of the city.

Online space is the ultimate level playing field, where any retailer can have an easy access to the prime real estate, which is the screen on customer's laptop or mobile. But any level playing field can yield results only when there are companies that are ready to make really large investments, which are backed by right kind of strategies. Merely blaming the deeply entrenched habits of Indian consumers won't do; our online retailers certainly need to evolve new ways of marketing their wares. You can't run a corner grocery shop without a right strategy; for selling online you surely need a truly out of the box thinking.

Wooing the Indian customer

The holiday season in USA sees large amount of goods being sold from e-commerce sites and this is primarily due to the massive discounts being offered. There are hardly any instances Indian consumers being offered that kind of massive discounts. Whether shopping in real world or in virtual, customers love discounts and sales. It is a well-known fact that Indian women don't like to miss any sale. The online retailers need to have right kind of alliances with manufacturers and producers so that they can sell different items at really cheap price on their websites. But in many cases, the Indian online stores tend to price their products higher than in the real world. Clearly the intention is to accommodate back-end and logistics costs within the margin. This is a sure recipe for driving away the customer.

Then there is the issue of making a payment for goods purchased online. How many times have we heard people say, "Oh I don't mind buying online, but only reason I don't do that is because I don't wish to disclose credit card details to online vendors." Even though India is touted as a software superpower, majority of its citizens are insecure about using credit and debit cards to buy online. Our online retailers could certainly pitch in by doing all they can to make people feel safe when they place an order. The sites should remind customers that they are ordering through a secure server. Customers also need to be explicitly told that the website will not pass on their email addresses to any third party, and all the personal details will be kept confidential. In western countries many customers use systems such as PayPal to make payments. In India too, banks and online retailers could come together to create a system like PayPal so that customers can make a purchase without having to use his credit or debit card. Some outlets like Flipkart are letting the customers pay by cash at the time of delivery. This is a good idea.

> **"Online buying is saving me time and money. Before buying any book, I can compare the rates from different websites and buy from where the prices are lowest. I won't think of buying a new dress online, or even a new electronic device"**
> **Smiriti Khanna,** College Student

The quality of service is also important. If you take many days to deliver an item after an order has been placed, then it is highly likely that the customer might loose all enthusiasm for buying online in future. Also, many online retailers in India are having high costs of delivery. This makes the deal uneconomical for the customer, as they can get the product cheaper in the neighbourhood markets. It is possible that the product might be damaged when it reaches the customer, or there might be some other problem, in such cases the issue has to be resolved quickly. There should be some sort of money back guarantee. More than anything else, the online retailers have to learn to be pushy in selling their products like any persistent salesman at a shop. Indians also tend to buy when they see any urgency to do so. Once again we come back to the marketing strategy of having bumper limited period sales.

With broadband spreading at a scorching pace, there is no doubt that online retail enjoys a rosy future in India. According to some analysts, by 2015 India could have largest number of Internet users, and entrepreneurs have to begin now to tap the amazing financial power of this large base of potential customers. The huge number of smartphone users could certainly turn out to a worthy target, as they are connected to the Internet round the clock. Surendra Bhatia travels often for his job in banking industry, and he has used his mobile to shop from retail outlets in India few times. He says, "It is quite normal for me to be stuck at airports while waiting for my flight, so it's more convenient for me to use the time to do the shopping through my mobile." The bottom line is that many more Indians can warm up to online retailers if they can have better incentives.

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Wouldn't it be great if you could order for an iPad from your 3D display and have it delivered without having to pay anything for it? Welcome to the Good Life!

Sambhav Daffu
sambhav.daffu@thinkdigit.com

Imagine a world where you are no longer tied to your routine, no longer do you have to suffer the daily grind of commuting, you don't have to report to the office on time or sit through those boring meetings. Take that guitar class you always wanted to, or learn to swim or paint or travel around the world or do what ever you wanted. The idea is to break the regular monotony of life and to engage yourself in something relevant and meaningful. Sounds wonderful doesn't it?

What is it?

It's the future we all have been waiting for or rather dreamt of. The Venus Project is something of a Utopian concept which is the brain child of Jacque Fresco. It proposes a society of equals – where there is no discrimination, no elitism of any kind. People are free to choose what they want to do, there is no rat race or any sense of competition. We'll dive deeper into the world of the Venus Project in a bit, but first, let's throw some light on Jacque Fresco, because you're probably beginning to wonder if he's off his rocker.

Fresco is a futurist who visualises and designs the future. He has been working on the Venus Project for close to 50 years now. He has been involved in industrial design and social engineering all his life – even designing concepts and systems for aviation companies and the US Army. He has authored more than nine books and has appeared in more than five films. A large part of the Zeitgeist Addendum (January Omega DVD) features Fresco and his ideas. The point we're trying to make is that he's not a Loony. Fresco wants to build a society which is devoid of war, hunger and poverty. To achieve this, he proposes that we use two main ingredients – a resource based economy (RBE) and Technology.

Why is this better than the current system?

Whenever an idea like this springs up, your first reaction would assume that the whole concept was the result of one pot-filled evening where everyone having a gala time suddenly decided to take up the mantle to change the world. On the contrary that does not seem to be the case with this one, at least not yet. What the Venus Project proposes is definitely better than our current system as it does not exploit the earth's resources, it talks about sustainable development and use of renewable sources of energy and universal healthcare. It basically engages in all the things that would make this world a better place to live.

Resource-based economy

If Fresco is to be believed the ideas and concepts that he proposes are all possible, and can be put into effect – right now. The only trouble is that the whole world should agree to them! Resource-based economy (RBE) essentially says that all the Earth's resources, which are in abundance should be made available to every citizen of this planet. The idea is to move from scarcity to abundance, which is only possible if we harness the power of renewable sources of energy such as solar, wind and thermal. He claims non-renewable sources of energy too are available in huge amounts, but the monopolistic nature of today's economy prevents them from being made available.

He even wants to get rid of money. Earth's resources should be available to all without a price tag and without exchange of money. If we all share what we have, then we can eradicate poverty, hunger and war. In the words of Fresco "It calls for a scientific redesign of our culture in which war, poverty, hunger, debt, and unnecessary human suffering are viewed as not only avoidable, but totally unacceptable. Anything less will result in a disastrous continuation of the problems inherent in today's world"

The reason misery exists in this world is because of scarcity. If every resource is freely available to everyone then these social evils can be rooted out.

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But how do we achieve it?

The concept is impressive but we're forced to ask the question – How do we do it? To answer this Fresco turns to technology, the only saving grace for mankind and a corner stone of The Venus Project. If we apply science and technology to redesign the existing social system we can achieve a humane civilization unlike anything in the past. All the mundane and boring tasks which humans perform on a day to day basis would be done by machines. Fresco says, "A resource-based economy overcomes scarcity by using renewable sources of energy, plus computerised automated manufacturing and inventory. It would design safe energy-efficient cities with advanced transportation systems, and would provide universal health care and more relevant education."

So, if all the work is done by machines then what do we do? Well we all can just kick back and relax or pursue something which we always wanted to do. So lets say for example you are a photography enthusiast and you want a camera, all you have to do is go to the nearest Access Centre and get the desired camera along with a manual on how to use it, you can use the camera as long as you like. Think of the Access Centre as a public library, so everything from musical instruments to microscopes are available here. Everything is accessible to everyone without any money exchange – and that's the beauty of an RBE; no one's left out or discriminated.

Interview with Sujay Chakraborthy

Everything said and done, we decided to do a real world check and interviewed Prof. Sujay Chakraborthy who is an Associate Professor of Economics at Jawaharlal Nehru University, New Delhi.

Q. What do you think of The Venus Project?
A. I think these are just words and I don't think they have any validity. All economies are resource-based economies. That's what we teach in economics. There's nothing new. It's all about getting resources and transferring them in order to allocate amongst people, so that's true for capitalist as well as socialist economies. You name it, they're all are resource-based.

Q. Can we provide abundance in the economy along with sustainability?
A. Everybody is saying it, Fresco is not the only one talking about sustainable development. There is a World Bank division on sustainable development which has about 50,000 economists driving the same point.

Interview with Jacque Fresco

The Venus Project vs. The Real world
So far everything seems like a wonderful dream from which you never want to wake up. Still unsure about a few aspects of the whole concept we decided to get the information straight from the horse's mouth, here's an excerpt from our interview with Jacque Fresco.

Q. What would be the motivational factor for humans if they don't have to work?
A. I am afraid of those who do things purely for money motivation. Motivational factors are now hunger, poverty or war. If this is not enough motivation I don't know what is. We feel that our proposals will generate a new incentive and motivational system. Human beings need challenges in order to evolve intellectually and maintain a high level of curiosity and a need to overcome shortages.

Q. How do you expect the common man not to call you a "hippie" when first presented with the idea of the Venus Project.
A. It is not a question if they take to it but if they understand it. This is why we want to make a major motion picture and have it translated into all languages in order to make this direction understandable to the general public. It doesn't make any difference what they call me. If few nations control most of the earth's resources we will always have territorial disputes, wars and mass uprisings.

Cities of the future

Based on the design of the Venus Project our future society would be much happier, we would live longer and wouldn't have to do things out of compulsion. The city of the future would be designed not only by architects but also sociologists, environmentalists, behavioural scientists and educators. It would be designed as a totally integrated system using renewable sources of energy.

One design concept is of having a circular city which would be surrounded by parks and gardens. It would be designed to operate with minimum expenditure of energy while obtaining highest standard of living. The city would use totally clean technology in harmony with the local ecology. Each home would be equipped with a 3D flat-screen. If you desire an item, an order can be placed, and the item automatically delivered directly to your place of residence without a price tag. This includes whatever people need such as housing, clothing, education, health care, entertainment, etc.

Points to ponder

We would love to order an iPad from the sleek 3D display installed in our homes and have it delivered without having to pay for it! But it's too good to be true. It's a wild dream that Fresco has spun. The main flaw we see is that Fresco seems to underestimate the power that greed and sloth hold over us. Imagine a Cricket World Cup where every match ends in a tie, and all participating nations get their names on the cup, every 4 years! It's competition that makes us thrive and progress, and the utopian Venus Project may be able to do away with money, but greed runs a lot deeper than our wallets. Perhaps the first generation of people who live in an implementation of the Venus Project will be lazy moochers, but eventually learn to thrive. Who knows? We don't really expect to see this in any of our lifetimes anyway.

However, if you have suggestions for how the Venus Project can actually succeed, let us know. In fact, let them know as well – thevenusproject.com.

Smart phone gyaan
that no one gives you

We look under the hood of a smartphone and tell you everything you need to know about it's innards

Siddharth Parwatay
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Screen

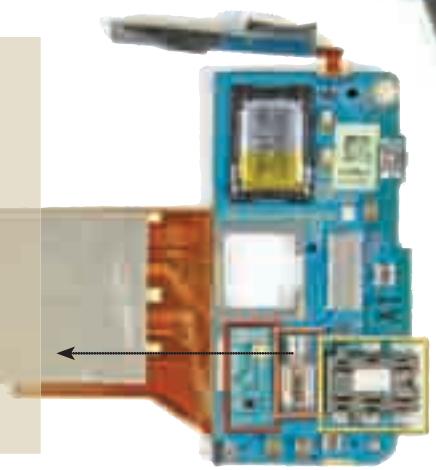
There are two factors when talking about displays. One is the kind of display technology used and the other is the kind of touch technology overlaying it. Although there is great hoopla about AMOLED displays in the market right now, a large section of phones still utilise LCD (Liquid Crystal Display) technology. Within the LCD space the most commonly found are TFT (thin-film-transistor) displays. TFTs don't have great viewing angles, have poor visibility in direct sunlight and consume relatively more power. The other type is IPS (in-plane switching) technology found in a few rare phones such as iPhone 4 and Droid X. Apple calls it 'retina' technology, which is merely marketing gimmickry. However IPS displays look brilliant (viewing angles et al) thanks to their crystal molecules being oriented such that their motion is parallel to the panel rather than perpendicular. AMOLED (Active-matrix organic light-emitting diode) displays are all the hype lately thanks to Samsung and HTC plonking them in phones such as Omnia II and Legend. In these displays organic compounds form the electroluminescent material making them quite vibrant and with great contrast. Super-AMOLEDs (found in Samsung Wave and Galaxy S) take things a step further to improve clarity by placing the touch sensors on the display itself rather than a separate layer. This makes it wafer thin and improves viewing angles. Speaking of touchscreens there are two types – resistive and capacitive. Resistive, the more primitive technology, works by placing two layers of conductive material close to each other. When a finger or stylus depresses the layer on top, it makes a contact with the other layer forming a circuit at that location. Capacitive is the more advanced technology and is now increasingly being used. For these screens the glass (an insulator) is coated with a transparent conductor such as indium tin oxide. When a finger touches the screen it breaks the electrostatic field. It's position is then measured relative to the four corners of the screen by the processor.

Camera

Smart phone cameras depend a lot on image processing rather than just the hardware when it comes to image quality. This is because no matter how large the camera resolution gets in Megapixels (MP), but the sensor size remains small you will have bad imaging. The sensor is what converts the optical image into electrical signal. What matters also is the autofocusing capability, shutter speed control etc.

Microphone

Smartphone microphones depend on chipset circuitry and processing to clear out the vocal signal. It can be termed as noise suppression or cancellation depending on the technology used. Cutting edge Smartphones (iPhone 4 and Droid X for eg) use two microphones for cancelling out noise. The second one is placed far from the voice mic. It detects the signature of ambient noise and suppresses it.



Battery

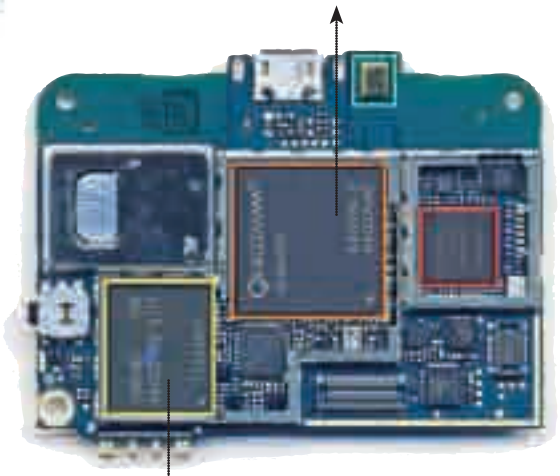
Most smarphones these days come with Li-on (lithium-ion) batteries. In the cell, Lithium ions move from the negative electrode to the positive electrode producing the current. These are re-chargeable but have a fixed number of life cycles. The capacity is measured in milliampere-hours (mAh). Phones with 1500 mAh battery rating will usually last long enough.

G-sensor

Smartphones sense their relative position or orientation by way of either an Accelerometer or Gyroscope. Most phones have Accelerometers to help keep track of orientation i.e. if you turn the phone it will ensure change from landscape to portrait and vice versa. This is done by analysing the vector acceleration which is caused as a result of weight (essentially g-force) experienced by a test mass inside the accelerometer device. Some high end smartphones such as iPhone 4G come with a Gyroscope which is capable of registering movement in a 3D space. So for instance it can detect the motion when you move the phone towards or away from your body. It only has applications in gaming as of now.

Processor

The processor is the heart or rather the brain of your smartphone; essentially what makes a smartphone smart. It does all the processing involved, be it when you run an application or even calculations to translate the position of your finger on the touch screen. Current high end smartphone processors are clocked at 1GHz. Samsung, Qualcomm and Texas Instruments make these processors and are battling it out. Much like the desktop space, which is populated by names like Phenom, Core i and Athlon processors in the mobile space too at times acquire brand names. Samsung has Hummingbird, and Apple A4 while Qualcomm calls them Snapdragon, Scorpion etc; and Texas Instruments, OMAP. These chips are all based on processor cores from ARM, a company doesn't manufacture chips but rather only designs the cores for such application processors. Some of ARM's designs include older generation cores such as the ARM9, ARM11 and the relatively recent Cortex-A8 and Cortex-A9. Manufacturers make their own chipsets (System on Chip design) often combining a GPU, cellular modem, and GPS on board. The QSD8250 chipset featured here for instance, used the Adreno 200 graphics solution and a Cortex-A8 core, together called Snapdragon by Qualcomm



Removable Storage

Removable storage for smartphones comes in the form of SD (secure digital) cards. Depending on size there are variants such as MicroSD (most common) and MiniSD. Phones can only support upto a cetain amount of memory, with smartphones it usually 32GB. There are speed classes in SD cards specified by the SD association. Class 2 for example supports H.264 video recording, MPEG-4, and MPEG-2 video recording.

RAM

Memory in cellphones functions pretty much the same way it does in a desktop PC. The more the RAM, the more applications you can keep open, the more you can multitask. Low to mid range phones have RAM in the vicinity of 256MB, while high end phones such as the Desire HD have 768MB.

Images courtesy: www.ifixit.com

The 'not so smart' phones

Here's what we hate about the so called smart phones of today

Vishal Mathur
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The last couple of years have seen a very swift rise of the popularity of smartphones. So much so, that it is almost impossible to imagine life without them. But are they really perfect?

iOS4

About 2,30,000 iPhones are being activated on a daily basis, globally. Or so Apple claimed, back in September 2010. The annual update in 2010 saw the iPhone 4 arrive along with an updated iOS4. However, despite the hardware and software refresh, the iPhone still has its share of issues. Mind you, that has not affected its popularity one bit!

Apple iPhone4

- **Micro SIM requirement:** To work an iPhone 4, you will need to chop your existing cellular SIM card to fit the iPhone 4. Despite local johnnies gladly doing it, the problem this raises is that there is no way you can go back to using another phone without facing a hassle.
- **Signal problems remain:** The Antenna-gate literally turned into a PR disaster for Apple. The fact that they refused to acknowledge a problem with the phone and actually blamed the users for holding the phone all wrong, was precious. After offering free cases, Apple announced that it is a software issue and will be resolved soon. A couple of OS updates later and people haven't reported serious improvement
- **Lack of expandable memory:** 16GB or 32GB- make a decision and stick with it. No expandable memory slot available.
- **Battery cannot be replaced:** The battery is sealed in. The users are not expected to access the battery. Head to the service center for any battery issues. Quite inconvenient.
- **Lack of widgets:** The iOS4 does not like Widgets. While Android is merrily showing off it's widget capabilities, Apple decided the iPhone doesn't need it.
- **iTunes:** Syncing to the iPhone is a pain. Why should you 'sync'? Whatever happend to good old drag and drop?

Android

Thanks to the customisations, free applications and variety of handsets it is available on, Android is steadily on the rise. Google claims 3,00,000 Android phones are activated on a daily basis, globally. But Android too has its own problems.

HTC Legend

- **Gaming:** The Android platform has still not captured the imagination of game developers. Probably because of the non-standardised hardware, game developers find it difficult to make the games run on every phone. This is where iPhone has a definite advantage.
- **Manufacturer Customisation:** Google allows handset makers to put a skin over the OS. Example- HTC Sense. Almost every manufacturer is doing this. Though this is designed to make the phone have additional functionality, in most cases this has an opposite effect. Software tends to crash (incompatibility, badly written software etc.), memory usage goes up and battery life comes down.
- **Poor Task Management:** Android phones have never been good at handling apps which open in the background or do not fully close upon exit. The lack of a built-in task manager created a problem which was solved by multiple third party apps. However, most people still don't use them and end up sacrificing performance and battery life.
- **Bad battery life:** The apps are to blame for this. They have a habit of being bullish when getting online updates.
- **Too many screen resolutions make it tough for app makers:** Varied screen resolutions for different devices (add tablets to that variety) and the app developers have a major task on their hands to make the apps look proper on every single screen. Some apps end up looking weird on some devices.
- **Too many Android versions:** We still have Android 1.6 on offer along with Android 2.1 and the recent update- Android 2.2 version. Which phone has which version? Quite a lot to remember when out buying a device, right?

Symbian^3

Symbian remained the way it was for a long time, a bit too long, according to most people. Symbian3 arrived in 2010, with Nokia's N8 smartphone. A lot of

hopes rested on the new OS. However, Symbian3 evoked a variety of responses- happiness, relief, disappointment, anger, resentment and even aggression!

- **Everything's still the same?:** The interface on the N8 looks a lot like the one on the much older N97, which says a lot about the new OS. Not much has been done to make it slicker, or even look a bit different. We're all for nostalgia and all but not when it comes to UI design!

Nokia N8

- **Feels clunky with too many menu options:** There are still too many menus and sub menus to manage the options and settings in both the OS and within apps.
- **Handicapped Widgets:** Widget size on the 3 home screens is limited, which not only reduces functionality, but also makes certain widgets a pain to use. Imagine catching up on your twitter timeline and only being able to read one tweet with every scroll.
- **Ovi Store is sparse:** Despite Nokia's best effort, the Ovi Store is far behind Apple's App Store and Android Market in terms of the sheer number and variety of apps available.
- **Even Nokia may drop Symbian:** There is a strong suspicion that Nokia will judge the response to the Meego based devices and then decide if it has to completely drop Symbian

Blackberry OS5:

- **Touch version of the BB OS was truly bad. (Ex- Storm 9500 and Storm 9530):** Blackberry did not get the touchscreen version of the OS5 correct, at all. The Storm smartphone range did not do well at the box office, despite having good hardware. The new OS6 hopes to do better.

Blackberry Storm

- **Lack of variety on Blackberry App World:** Just like Nokia, RIM has not gotten the app eco-system in perfect shape. The lack of applications is keeping away the potential buyers who just want a lot of apps on the phone. With OS6 released, the apps situation needs to be improved quickly, to fully leverage the new OS.

Common Problems

1. Separate Data Plan needed

Affects: iPhone, Android and Blackberry

The cellular operators want users of the iPhone, Android and Blackberry phones to subscribe to a separate data plan. This is over and above the standard voice plan they may have subscribed to. We knew this about iPhone and Blackberry, but came as a shock when even the HTC Legend refused to connect to the web via Vodafone Live. The customer care informed us that a separate data plan called Vodafone Mobile connect (₹199 per month; no free usage) needs to be activated. Nokia users do not have any such problems.

2. Bad battery life

Affects: iPhone, Android and Blackberry

Gone are the days when your phone would last 2-3 days on a single battery charge. The smarter the phones become, the lesser the battery lasts. Now, most phones barely last a day from full battery charge to full discharge. However, Nokia's N8 (and it older generation smartphones as well) still offer very good battery life of about 2 days on a single charge.

3. Lack of OS update clarity

Affects: Android and Blackberry

Android phones are often sold with the promise of an 'upgrade' to the next version of the OS, as and when it is rolled out. More often than not, the handset manufacturers take their own sweet time in rolling out these updates to phones. And these updates end up being old by the time they get to the user's phone. Blackberry also promised the OS6 update to the Bold and some Curve handsets, but there is no clarity on when and how. Nokia, on one hand, never promises any such thing, while with the iPhone, you know you will get the update.

It's safe to assume that the entire smartphone experience is not all hunky dory. Each OS, platform and smartphone range has its own set of problems. When will they truly smarten up?

Smartphone OS Wars:

Searching for the *one* perfect smartphone OS

photos.com

Handset manufacturers are vying for market dominance and aren't leaving any stone unturned in convincing you of their advantage over others. How do you make the right decision?

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In the good old days, Symbian was the smartphone operating system of choice; in fact, people didn't bother remembering the name. The rest were dumb-phones! Fast forward to the present day. The scenario is totally different. For someone who has not followed the developments in this arena, it is close to unbelievable.

Nokia's Symbian has been truly overshadowed by a several smartphone OSes. Apple's very popular iPhone (iOS), Google's Android and the 'made for business' Blackberry OS are now ruling the roost. A lot of other OSes are floating around as well. Samsung launched the bada OS with their Wave smartphone. Nokia introduced the Maemo with the N900. We should be seeing Meego devices very soon. Now that HP has truly taken over Palm, the WebOS development is in full swing.

For those who indulge

The 2010 story

Apple iOS4: The new OS from Apple was synced with the launch of the iPhone 4. Since Apple develops the software as well as the hardware, the entire combination is completely optimised for the end user to enjoy. This was the first platform which streamlined and popularized the concept of apps, by bringing them under one roof. The App Store currently has 300,000 applications available for download.

Google's Android: Currently, there are phones which run the old 1.5, 1.6, 2.0, 2.1 and the latest 2.2 versions of the OS. Android 2.3 will be arriving in phones very soon. However, the next major update will be seen later this year when Android 3.0 arrives. Not only will there be major visual and feature upgrades, but tablet devices will finally see an 'optimized' OS. Over 1,00,000 apps available for download via the Android Market. The Android Market can only be accessed via the handset, unlike the Apple App Store which can also be accessed on the PC. However, the most important thing here was the fact that Google allowed handset manufacturers to customize the OS according to their phones. Hence, we saw the evolution of 'skins' like the HTC Sense offering a customized look and functionality over and above the Android OS. HTC, Motorola, Samsung, LG and even handset makers like Micromax are churning out new Android phone launches by the dozen. And yes, Google's Andy Rubin responded to Apple's announcement regarding daily iPhone activations with his own bombshell, 3,00,000 Android phones get activated daily.

Blackberry OS6: The final word for the business user. Blackberry's operating system offered everything which a business user wanted- mails, IMs, documents and messages in one phone. The QWERTY keypad made it popular with the 'serious' user. The new OS6 update brings in a lot of visual as well as feature improvements allowing it to keep pace with the iOS4, Android and even Symbian3, to a certain extent. The Blackberry Torch is their first OS6 handset. However, older handsets like the Curve 3G, Bold 9700 and even some Curve series handsets will get the OS6 upgrade.

Symbian3: Nokia was criticised for still flogging the almost dead Symbian S60 operating system for smartphones. However, the much anticipated Sym-

bian update arrived, with the much anticipated Nokia N8 handset. However, after the excitement had settled down, people realised that Symbian3 still has a long way to go before it can truly square up to the likes of the iOS and the Android.

Windows Phone 7: This is Microsoft's desperate attempt to grab a solid chunk of the smartphone market. The previous gen Windows Mobile 6.5 is dated, and truly been replaced by the Blackberry OS. Windows Phone 7 does come with a completely new interface, and incorporates the best of both worlds with business applications and entertainment features. Inexplicably, the "copy-paste" feature is missing and will arrive with the first software update.

For those on the move

The Others: Apart from the biggies, we had a lot of other operating systems who came, saw, and didn't conquer as well as they had planned, and still stuck around to grab a share of the pie. Samsung's bada OS, for one, was loaded on the truly amazing Wave. Nokia's Maemo bid faltered quite quickly, with the N900 not capturing the imagination of the buyer. Because of the lack of good apps? Partly the reason, we believe. HP is all set to pump in a new lease of life into the Palm stable, with rapid development of the WebOS.

The rise of apps

It is true that a good smartphone is almost a replacement for the PC, as far as accessing email, IM and documents is concerned. However, the rise of the app ecosystem has also helped widen the appeal of a genre of phones which were considered 'complicated' and 'serious' till now.

The apps span across every imaginable genre- office suites, productivity enhancing apps, entertainment, mobile versions of popular PC software, games etc. There are apps which can make farting noises. Basically, there is an app for every task imaginable, and then some!

The rise of the App stores can be attributed to Apple, for not only popularising the concept, but also working quickly on enhancing the number and variety of apps available. The App Store now has 3,00,000 apps, and counting. Some are paid, some are free. An important thing to note is that Apple is now looking to offer the iPhone/iPod Touch as a portable gaming console.

However, Google is loading the Android Market very quickly, and has crossed a million apps. Incidentally, a lot of the apps that cost money to download from the Apple App Store are free on the Android Market. Undoubtedly, Apple App Store and the Android Market are two of the largest reservoirs of applications out there.

Blackberry, Nokia and the others tried with their own app stores. But none have come even remotely close to the leaders. Nokia upgraded the Ovi Store to add more apps and gear it up for the Symbian3 launch. Research in Motion has been often criticized for lacking the drive to make the Blackberry App World better, quickly.

Heights of popularity

The best example of how smartphone apps are now the next big thing is Angry Birds. This is one game which saw 1 million downloads on the day of launch on the Android platform. By December last year, the game had been downloaded 50 million times from the Apple App Store. And yes, Angry Birds has arrived on the Playstation platform, and will very soon be on the PC as well.

This just goes on to show how solid the app ecosystem has become.

What to expect in 2011?

- With the growing popularity of the tablet devices, expect a lot of action from the Android corner. More apps will be optimised for the multiple screen sizes- phones and tablets. With more tablets on the way, app developers will be working overtime to ensure that their apps are rendered perfectly on the huge variety of screen sizes and resolutions. Google plans to make the Android Market available on the web as well, in the coming months. And yes, Gingerbread (Android 3.0) is coming as well.
- Apple can't be expected to stay silent and there will be the inevitable iPhone 5 launch and probably an update to the iOS4.
- Blackberry will want to spread the OS6 goodness to its previous generation phones as well, along with the new launches.
- We're truly surprised that Microsoft is betting big on the tablet market with Windows 7, and not Windows Phone 7. Since Windows Phone 7 is ready for the smartphone, it will be easier to port it to the slightly larger tablet as well. Maybe Microsoft will wake up and smell the coffee.
- Speaking of WP7, the developments with regards to its app store will be watched closely. Since this is Microsoft's big smartphone bet, the app ecosystem needs to be in perfect order.
- Nokia will need to take an executive decision- stick with Symbian 3 or switch completely to Meego."With big-wigs in the business, their muscle power and an already existing base of consumers, services and networks a single OS or platforms is difficult to foresee but yes in the quest to be the best, the offerings are just going to be better and better by each of them. The more successful ones would be the ones who would play the convergence game. Google Android for instance is on the mobile, tablets, televisions, cars and expected to be in many more consumer electronic products.

-Naoman Kazi, Business Lead, Hungama Digital Media Entertainment Ltd.

However, apps will continue to rule. With over 500 million phones expected to be sold in 2011, expect a lot of apps to be downloaded. And by lot, we mean lots of millions! With people being more open to pay for apps now, app developers will have a gala time. All they need to do is make a worthwhile app, price it right on the best suitable platform, and they are all set.

Top 15 android apps

A set of apps every Android phone must have

Siddharth Parwatay
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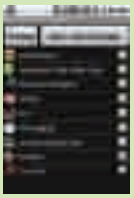
15 Advanced Task Killer



If you have a slightly older version of Android, this app can prove to be extremely useful. ATK allows you to free up much needed memory and save battery life by closing background applications in a quick and easy manner.

14 LauncherPro

A free home screen shell replacement and application launching tool. It adds a bit of glamour to the default Android launcher by adding features such as smooth scrolling, seven home screens, transition effects and a dock.

13 ChompSMS

There couldn't be anything more bland than the default SMS app on Android. ChompSMS adds a bit of fun and functionality to the everyday activity of texting. It lets you SMS in a chat bubble style conversation format and more

12 Transdroid

We all are "downloading enthusiasts" right? If you're thinking about the stuff that is currently downloading at home, you need this app. Transdroid is a mobile torrent controller for your desktop. You can check your downloads remotely as well as scan RSS feeds for auto downloads.

11 imo.im

An all-in-one messenger app is a must have on any Android device. Imo.im supports some of the most popular chat services such as Gtalk, MSN, Yahoo!, Skype text chat and Facebook. No better way to stay "always on".

10 Titanuim Backup

A powerful backup utility that saves all your downloaded apps so you don't have to install them all over again. Loads of customisation options for choosing what apps/services to backup. This is an app for those who fiddle with their phone a lot - rooting, installing modded roms, and other such things.

9 Astro

A file manager for phones is something powerusers have always craved for, right since the rudimentary smartphone era. Astro is one of the most awesome file managers out there and enhances your Android experience by adding a multitude of features including folder view, downloading files from browser, extracting ZIP/TGZ files, shortcuts, sending files as attachments, multiselect etc.

8 Vplayer

What VLC is to the PC, Vplayer is to Android. It plays pretty much every video format that Android doesn't support by default. Support includes DivX/Xvid, Flv, Rmvb, Avi, Mkv, Wmv, Mp4 and a more. A great way to avoid transcoding content.

7 Pulse

Pulse is perhaps the most visually appealing and easy to use newsreader app out there. It has an awesome repertoire of default sources from where it will pull in news feeds for categories such as technology, sports, business and many more.

6 TweetDeck

TweetDeck though lacking in few areas, still remains one of the best overall apps for social networking on the Android platform. It retains most of the functionality found on its desktop version such as creating custom columns for following specific friends and search terms. It connects with Twitter, Facebook, foursquare and Google Buzz. There's also URL shortening, simultaneous posting and a quick click-and-upload photos feature.

5 Swype

Swype is a quick and fun way to type on touchscreen devices. All you have to do is touch all the alphabets in the word you are typing in one continuous swiping action. There is a bit of learning curve here but once you get used to it there's no going back.

4 AK Notepad

This is a quick and easy note taking application for Android. For it's simplicity, it has a surprisingly large number of features.

3 K-9 Mail

The default email app leaves a lot to be desired. K-9, is a full featured email app that works especially well when dealing with large volumes of mail. You can search and integrate multiple email addresses.

2 Winamp for Android

One of the newest music players to hit the Android market, Winamp edged out previous favourties like Cube and PowerAMP. It's got tons of features, including syncing library over WiFi and web radio.

1 Opera Mini

It's a proven and fast mobile browser across all mobile platforms. Mobile version allows for non-proxy based browsing with direct socket connections. The Latest version, Opera Mini 5.1, features the familiar Speed Dial home screen on which you can pin frequented websites.

Top Symbian apps of all time

A roundup of the best ever...

Harmanpreet Singh
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Without doubt Symbian's glory has faded considerably, but the fact remains they were the first to introduce most of us to the concept of smart phones and apps. Most of those very apps still stand out in the crowd. This list is a mix of old classics with new hits, just in the right proportion for people with every flavour of Symbian, old or new, to have a go.

15 Quick Office

Quick Office has been bundled with Symbian phones for a long time now: Being free does not make it any less valuable. A light and responsive suite for viewing and editing your documents on the go. A version is now available for other mobile operating systems too, which is just another proof.

14 Socially

Access Facebook, Twitter, LinkedIn & Foursquare from one place. Tight integration with the phone means that your contact book syncs with your social network contacts. This one is a help; Giving old Symbian the social talents that have recently been flaunted by likes of Android.

13 Symtorrent

Another first, Symtorrent brought torrents to Symbian. Till date, it is the only BitTorrent client on the mobile platform. No doubt, those were the glory days of Nokia. Sigh

11 Shazam

Shazam identifies music by scanning small snippets from songs and comparing them against a database. With Twitter and Facebook sharing thrown in to solve the sharing obsession, this one is a crowd favourite

10 Ovi Maps

Nokia is one of the few companies that actually provides what we demand from every company: Free turn-by-turn guided navigation software. This one is here for the excellence and graciousness.

9 Snaptu

Snaptu can best be called a service aggregator. From Facebook and Twitter, to various news services and blog, it fetches content and brings it together in an app that is very easy on the eye.

8 SmartMovie

SmartMovie, like Xplore above, had a talent centuries back, (OK, make that 8-10 years) that most mobiles are learning now: Playing AVI files flawlessly. The bundled converter makes the whole process absolutely seamless. This one is a classic, a favourite with the S60V1-V3 crown

7 Xplore

Xplore provided Nokia 6600 users what Apple user's still aren't getting. An explorer that provides uninhibited access to file system, plus much more.

AV Playback, folder copying, or transferring you entire drive over Bluetooth: Xplore does it all. Did it even back then.

6 Core Player

Core Player was to Symbian, what VLC is to PCs. The free version has been discontinued, but you should still be able to find it in the wilderness.

5 Fring

A VoIP and video chat service par excellence, this one is becoming a favourite because it allows you to use text/voice/video chat in all you favourite services, including Google, Yahoo, ICQ etc.

4 Skype

A newer entry to the list, Skype is here for obvious reasons: One of the best VoIP clients on the horizon, legendary stability and across-platform user base of more than 500 millions users. We use it to call Uncles abroad for gadgets

3 UC Browser

With 400 million downloads and 100 million users all over the world by September 2010, UC Browser, like Opera Mini, does data compression and more. Built-in file manager and an ultra-cute logo are our pick

2 Nimbuzz

IM, VoIP, Twitter, MySpace. Use this one app to connect you to the world. Although around for some time it's still generating a lot of buzz throughout the Symbian universe. The easy to manage tabbed interface unclutters your social life, all under the roof of this all-in-one app

12 Handy Taskman

Symbian always had a built-in Task Manager, but Handy Taskman was still loved. While it shows system resources, it was mainly loved for its ability to kill the tasks that the phone couldn't

1 Opera Mini

Opera Mini steals the cake in this list more deservingly than anywhere else. It was and still is the go-to browser for most Symbian users out there. It routes websites through Opera's servers, and the compressed data is a boon, especially with the 2G speed we are subjected to.

Top 10 BlackBerry Apps

Ten ways to enhance your BB

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10 Ubertwitter

Regarded by many as the best free twitter application on the BlackBerry platform, Ubertwitter has many functions you'd expect. Photo integration, tweet shrinking, URL shortening and twitter lists are some of them. Most of all the interface is very inviting and makes the whole experience a breeze.

9 Imagining Theme 2.0

The first and only UI enhancement tool in this list, it proves that BlackBerry users are not immune to a few frills. It's basically a theme that seems to be pretty popular amongst the BlackBerry crowd. What's the harm in adding a bit of visual glory to your phone?

8 Google Mobile Search

Apart from being able to scour the web, this app brings Google's powerful search feature to your phone. It will hunt thorough functions such as address book and email in-box, to quickly retrieve what you're looking for. Features such as autocomplete just add to the overall experience.

7 LinkedIn

Business networking is obviously very important to the BlackBerry boys. This app lets you browse profiles and you can look up important information about people you are going to meet. A nice app to keep you connected to the relevant community and on the cutting edge.

6 BB Notepad

BB Notepad is a simple text editor for BlackBerry. It allows you to quickly jot down stuff. You can write full length documents or short and sweet notes. BB Notepad is far better than the default note-taking app. You can save the notes as text files and even share via Bluetooth.

4 Dictionary and Thesaurus

A free app for all you English Nazis out there. This app boasts some robust features: more than 500,000 words, definitions, synonyms, phonetic and audio pronunciations, spelling suggestions and much more. The word of the day feed, is a nice improve your vocabulary and get some fun gyaan on usage, history and trivia surrounding a particular word.

3 Viigo

Simply calling it an RSS reader just doesn't cut it because it's so much more than that. It grabs weather updates, sports scores, all flavours of news, in addition to supporting integration with Google reader. Through its browseable categories and modules, you can subscribe to feeds on entertainment, shopping, and lots more. This app gets envious glares from other platforms.

2 Blackberry Messenger

Though coming in at number two, BBM as it's generally called, is one of the most important apps available on the Blackberry platform. In fact many people even switch over to this platform to acquire that coveted BB Pin (personal identification number) which is your BlackBerry username of sorts on BBM. This little app is the way Blackberry boys (and girls) stay in touch, for free!

5 Facebook for BlackBerry

Well even starched suits need to limber up a little at times right? This app is where all the shiny shoes unwind by connecting with friends, posting status updates, browsing photos, and generally staying in the loop. Even with the handicap of a small screen (compared to full touch phones) on some models this app manages to do quite well. It lets you do most of the web version's functionality be it poking, liking, reading Facebook messages, etc. Ability to integrate with phone contacts is a much liked bonus.

1 Google Maps

Believe it or not Google Maps ranked no.1 in our internal poll of Blackberry users, even ahead of Blackberry messenger. Looks like Blackberry boys find themselves a little lost every now and then. Good thing then that this app is fully loaded with features such as turn by turn directions, local listings and cell tower based location triangulation. With Latitude integrated you can get to know where your friends are.

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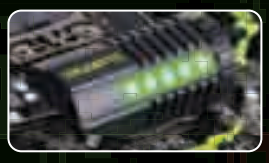

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Top 10 J2ME Apps

With so many feature phones still coming our way these little apps are still improtant

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

10 Wattpad

Wattpad is the world's most popular ebook community. This is a community where people write and share content ranging from full length novels to short stories and essays. With the help of the J2ME app you get to read all of this content on the go and even connect with other readers / contributors from around. You also can access around 17,000 eBooks from Project Gutenbergyou could need.

9 Mixit

Multi protocol chat clients are great when you want to IM your friends, but what if you want to join a regular old school chat room? Mixit is the app that you need. It's moderated but as with anything connected to the internet, you might come across offensive content every now and then. Use with care.

8 Nimbuzz

A multi-protocol instant messenger client that is making waves in the Java phone space. It comes with a few goodies especially in terms of UI design. The ability of the app to flawlessly access the phone's camera and file system to instantly send files to IM contacts, is a fantastic feature. Just point your phone browser to www.get.nimbuzz.com to download on your phone.

7 KD Player

KD Player is an awesome music player on the J2ME platform. It plays formats such as MP3, wma, and wav but that's not its claim to fame. The real fun is in the attractive user interface that shows a hell lot of info including bit rate apart from album name, artist etc. Themes can be changed and the player even has the ability to show album art provided it's put in the folder. You can even bookmark tracks and make playlists.

6 Flurry

Flurry is an easy to use email client for J2ME phones. You can keep track of multiple email accounts and there are options to view feeds too. The best part is the Flurry compresses data at the server end, thereby striving to keep your data charges to a minimum.

5 Litefeeds

Litefeeds is a full featured RSS feed reader. It's got a plethora of functions and features. Once installed you can Scan feeds, view full text images, and clip items. The feeds are fully customisable and you can even email interesting news items to your friends from the app. The feeds are compressed and simplified with more options appearing only when you want them to. This way again your data usage is limited.

4 eBuddy

If you thought Instant Messaging is the preserve of Smartphones, you'd be wrong. Applications like ebuddy make it possible for anyone to be always on. With ebuddy messenger you can have all your buddies from multiple IM accounts in one list and chat with them straight from your phone. It supports multiple protocols including Facebook, MSN, Yahoo!, Orkut (Google Talk), AIM, ICQ and MySpace.

3 Bolt

Bolt 2 is a dark horse quickly catching up to Opera Mini from the shadows. The browser has ability to change orientation, can save passwords and cookies, and even has a half screen zoom window feature that comes in handy at times. In our opinion its best to have both Opera and Bolt browsers on your phone, you never know when which of the two might work better.

2 Opera Mini

As always Opera Mini finds it's way into most mobile apps lists. But the enhancement it provides to feature phones is unmatched in any other platform. For J2ME phones Opera first brought pointer based clickable browsing and the ability to display almost any page no matter how complex the coding on it. Features include speed dial, cookies and password saving etc

1 Snaptu

Snaptu is a social networking cum entertainment/news application all rolled into one. The app has versions on many platforms but it's probably the most valuable on a Java phone. The UI of the application totally transforms your dull feature phone interface into something almost like a smart phone. The home screen in Snaptu gives you access to a multitude of services that you could need. There's the standard Twitter, Facebook stuff plus news feeds, cricinfo, sudoku, a dictionary and lots more. You can extend/customise the functionality by adding applets.

worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(MUST READS)

INSIDE INTEL LABS, A PHOTO ESSAY

Tom's Hardware teamed up with pro photographer Gary Wilson to explore and reveal the little-known world of...Intel's X-Lab! Be prepared for some dazzling images and info from the cutting edge of technology
http://bit.ly/gw46SF

SHOCKING RESEMBLANCE

Italian blogger Cattani Simone has found out that the famous two face smiley image used by Mac Finder as its icon, first appeared in a Picasso painting back in 1934. The logo has been a part of every Macintosh OS since 1984. Read more on
bit.ly/f4svQt

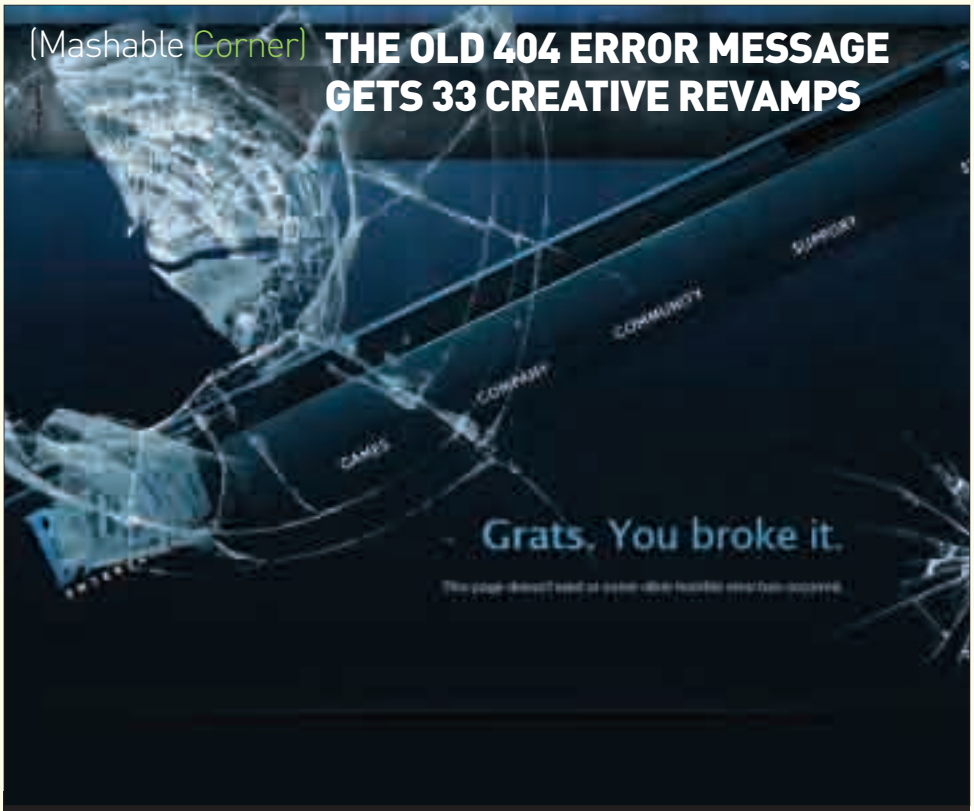
NEW TEGRAS FOR TABLETS AND SUPER PHONES

Dual cores designed by Nvidia for tablets haven't even hit the market and the company has already started work on quad cores capable of 3D displays for portable devices. Read more on
http://zd.net/gPztk7

FUNDING OPEN EDUCATION

An earlier report by Creative Commons stated that Open Educational Resources (OER) would be getting $2billion in aid which is not correct. OER might get a very small amount of the whole deal, a mere $10000. Read more on
http://rww.to/eFWsUf

(Mashable Corner) THE OLD 404 ERROR MESSAGE GETS 33 CREATIVE REVAMPS



An error page is not something you'd like to come across, but some quirky web developers out there add their own twist to that annoying page. In this showcase, Mashable picked out some of the best user-submitted 404 errors.
http://on.mash.to/hP9fX0

Can Wikipedia survive another 10 years?
As Wikipedia turns 10, Mashable takes a incisive look at it's evolution and now steady decline in the number of active contributors. Read on for more:
http://on.mash.to/gT9eRP

Do nothing here
Weird websites keep spawning right, but Mashable seems to have hit paydirt with this one. The website asks you to do nothing for two minutes. Move a muscle and you fail. Read on:
http://on.mash.to/hWbWrt

Are musicians starving?
With legal music streaming services such as Spotify, Last.fm, and Grooveshark cropping up, we tend to think artists are getting their due. Take a gander at this infographic:
http://on.mash.to/bwovhX

SHORTS

NEGATIVE PUBLICITY OF ELECTRIC CARS

Electric cars are in their nascent stage as the technology is still developing, but they always get negative publicity by the press. An interesting read on how the press has been portraying them since 2006. For more:
bit.ly/eFWFv4

SNOOZE WHILE DRIVING

Volvo has come up with a motorway system called the Platoon which allows cars to drive themselves in a convoy at a maximum speed of 70 miles an hour. Could this indeed be the future of driver-less car systems that we've seen in Sci-fi movies? Peek into the future:
bit.ly/eQATu6

IPAD VS. MAC

What happens when the iPad beats Mac in sales figures? During the last three months of 2010 Apple sold a whopping 7.3 million iPad pieces double than the Mac in the same period. Know more on
http://bit.ly/eKzSuq

WARP YOUR REALITY

Some fantastic prototypes of Augmented reality gaming have come up lately. You point at ordinary objects such as a currency bill and start playing a game on top of it through your phone. Some top examples of this concept found at the link below [Videos]
http://bit.ly/hB9iKT

How to Buy a PC Case

- By Matthew Murray

First impressions are the most important, even when it comes to computers. So make sure your PC gives off a good one by using these tips to find the case that looks—and behaves—exactly the way you want it to.

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Unless you're a really serious system builder, chances are that when you think about your desktop computer, you don't think too much about its case. In fact, as long as a few basic requirements are met, everything else is probably pretty much okay: Does it hold all your hardware? Do the buttons and lights work? Are there USB ports on the front? And when it comes right down to it, these aren't minor concerns. More than any other component, the case is so simple that you only have to look at it to know how it works.

That doesn't mean, however, that there aren't plenty of places to go wrong when deciding which case you want to house your new computer (or the components you already have). Understanding what the case does, how it works, and why it's designed the way it is will help you make smart buying choices. And, just like any other component, it's easy to make the wrong choice and end up with a system that doesn't behave—or look—exactly the way you want. Will the wrong case destroy your computing experience? Probably not. But the right case has the potential to make a mediocre system okay and a good system great. So why take the chance?

Pick the Right Size and Shape

Unlike with motherboards and processors, a case's size doesn't need to be explained. Bigger cases can hold more optical drives and more hard drives (see below), have room for bigger video cards, and are easier to work

in. The terms "full tower," "midtower," and "minitower" are sometimes employed to suggest cases' decreasing size, but if you're not familiar with lots of different kinds of cases, they won't mean much to you. But you'll need to give some thought to the issue of form factor. This refers to the general design of the case's interior, and to the type of motherboard the case supports. Though you'll occasionally see a few others, the most common right now are ATX (which measures about 12 by 9.6 inches) and microATX (which measures about 9.6 by 9.6 inches).

A microATX motherboard will work in a case designed around the ATX form factor, but not vice-versa—even if you can somehow cram an ATX motherboard into a microATX case, it will be so tight you won't have room to do anything else.

Get Enough Drive Bays

As mentioned above, the larger the case, the more drive bays it's likely to have. There are three basic sizes of drive bays that determine what kinds of drives can be used in them. The first is the 5.25-inch bay, which is the wider style used for DVD and Blu-ray optical drives. (Some other kinds of hardware, such as specialized fan or audio controllers, are also sized for 5.25-inch bays.) Then there are 3.5-inch bays, which may be either internal or external: For ages, the external version was used for 3.5-inch floppy disks, but now you'll usually see memory card readers in those spaces; internal bays are where you'll put your hard drives. Most full-size tower cases will have two or three 5.25-inch bays and four or five internal 3.5-inch bays; some cases come with specially designed plates that let you install a 3.5-inch drive in a 5.25-inch bay if your case doesn't have a 3.5-inch external door on the front. The third kind of bay is still uncommon in most desktop PCs, but it's slowly becoming more popular: the 2.5-inch drive. These are intended for smaller hard drives and "naked" solid-state drives (SSDs), and are usually found below the internal 3.5-inch drive well, or perhaps

VISUWORDS

Rarely do we come across a tool that's not just useful but absolutely visually stunning. VisuWords is an online graphical dictionary and thesaurus that not only shows words and their meanings but also associations with other words and concepts. Beautiful orbs with words in them explode on your screen as you learn about the English language:
www.visuwords.com

BACTERIA FIGHTING PAPER

Scientists at the Bar-Ilan University, Israel have developed paper which can fight bacteria. Each paper is coated with silver nanoparticles which penetrates the paper surface to a depth of more than 1 micrometer. The paper can fight bacteria such as E. coli and S. aureus. This invention will sure change the meaning of paper soaps. Read more
http://bit.ly/dEOoWU

THE YEAR IN TECH

Year ending lists are always fascinating. Daniel Raffel, formerly a product manager with Yahoo! compiles the most comprehensive and simply awesome list of favourite new products, projects and features of 2010. If its not on this list it probably wasn't important. A definite must read for any tech enthusiast, complete with insightful opinions from the author.
http://tcrn.ch/dKqe97

elsewhere on the floor of the case. A few cases do have external 2.5-inch bays, but these are very rare—most of the time, the case will provide some method of securing a 2.5-inch drive in a 3.5-inch bay.

Check Your Expansion Slots

Most ATX cases will have six or seven slots on the rear panel for adding expansion cards; microATX cases will usually have four. We have, however, seen a few cases that buck these trends—high-end gaming cases designed for users of multiple two-slot video cards can have as many as 10 slots! For the most part, if the form factor of your motherboard matches that of your case, you'll be fine. But check the specs when you're buying, just in case.

Tool-Free?

Once upon a time, it was taken for granted that doing anything inside a PC required a Phillips screwdriver. Not anymore. While it's still a must-have tool, many cases these days have tool-free assemblies that let you access the inside of the case and secure most components without ever needing the screwdriver at all. (The exception is the motherboard; you'll always need to secure that with screws.) Different cases have different methods, but common ones include plastic clips for the optical and hard drives, specialized rivets that let the hard drives slide in and out of their bays, a press-until-click rail for the expansion cards, and so on. Better (read "more expensive") cases usually have better tool-free systems, but we find that even the best of them are more frustrating than the old-fashioned Phillips way.

PSU: Built-In or not?

Should you buy a case with a built-in power supply? It depends. The cheaper the case

and the power supply together, the worse an idea it probably is—low-end power supplies can be inefficient and shorter-lived, which means you wouldn't be saving money in the long run. If, on the other hand, you see a special case-PSU–combo deal from a major manufacturer like Antec, Cooler Master, or Thermaltake, you should be fine. Those companies are in the business of both cases and power supplies, so you can feel better about the pairings they provide. You may pay a little more, but the extra peace of mind will be worth it.

Keep It Cool

The biggest way that a case can contribute to—or detract from—a system's performance is in how well it cools (or doesn't cool) the interior components. This means you'll want to pay attention to what sort of fans your case has out of the box—and how many you can add to it later. Just about all computers have an exhaust fan on the rear panel for expelling heated air, and most have intake fans on the front panel for bringing air into the case. (Frequently, the intake fan is placed right near the hard drives, so they can be cooled before anything else.) The more powerful the system, the more additional fans you're likely to see; high-performance PCs can also include extra exhaust fans in the case's ceiling, or intake fans in the side panel (not coincidentally, those are often located right over the processor). The thing to remember, though, is that the more fans you have, and the smaller they are, the more noise your computer will produce.

Does Form and Function Matter?

We're saving this for last because it's technically the least important—at least as far as what your system can or can't do—but the way a case looks almost always plays a role in whether you decide to buy it. Cases may be the easiest components to buy, because there's often no question about what you need, but they're also among the hardest because they're how you present your computer to the world. Do you like the case's shape and its colour? Are you okay with something that looks traditional, or are you hankering from something that looks like it was designed for a high-budget sci-fi movie? Do you want tons of individual LEDs and lighting strips adorning every surface, or would you prefer to see as little illumination as possible? All these and more can be had—for a price.

Cases can cost anywhere from under $50 to over $800 (and no, that's not a typo), but you can get cases with everything you need for well under $100 and fully decked-out gaming cases for around $200. The hardest part will be finding the one that best matches your personality and the system you're hoping to build—but that's also one of the most fun and rewarding parts of assembling a computer from scratch.

For details and other tips visit:
http://bit.ly/g2Nyrr

SHORTS

WINDOWS VS IPAD

An interesting read on how Windows is planning to take over the iPad by introducing their own tablet very soon. Check out the ten slide power point presentation aptly named: Microsoft's iPad Battle Plan for Partners. Read more on
http://zd.net/hJ7UrD

DO NOT TRACK

Pushed by the Federal Trade Commission both Firefox and Chrome have announced that a 'Do not Track' feature would be available on their browsers which is equivalent to the do not call facility you get on cell phones to keep advertisers at bay. Find out more on
http://rww.to/frBQFa

MAC HAS COME A LONG WAY

Mac has given many firsts to the industry and to the desktop computer specifically. As it completes twenty seven years in the market here's a look at the long journey Mac has covered to reach where it is today. Read more on
http://zd.net/gFyekE

FOURSQUARE GROWS BY 3400%

An interesting infograph released by Foursquare shows that 381,576,305 check-ins were made last year. This indicates an overall growth of 3400% by Foursquare in the last year alone. Check out the infograph at
http://rww.to/fIRGyM

10 Most Memorable Tech CEOs of the Digital Era

Which of these CEOs will we remember in 50 years?

- By Benj Edwards

PCMAG DIGITAL NETWORK

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Chief Executive Officer is a title with significant cachet. As a CEO, you may as well be a modern day king of a commercial fiefdom. Your influence within your firm is unmatched, and your leadership determines the success or failure of everyone serving beneath you.

Through a complex series of cascading algorithms stuffed into an Excel spreadsheet, a few coin tosses, the heart of a Wookie, and the brain of a historian, I have determined what I consider the 10 most memorable CEOs of the digital era. With the PCMag audience in mind, favor was given to American CEOs of prominent high tech companies. As for the "digital era," well, that's a fuzzy term that essentially means post-WWII, computer-related companies.

You may not agree with the choices, but that won't stop you from engaging in frank, intelligent discussion with your fellow readers. I also encourage you to send in your own Most Memorable CEOs via email.

1 Jeff Bezos

CEO of Amazon.com (1995-present)

Memorable Because: Jeff Bezos founded the world's largest online retailer, Amazon.com, in 1995. In doing so, he legitimized the concept of retail sales through the Internet. In 2007, his company launched the Amazon Kindle, a wildly popular ebook reader which heralded a new generation of low-cost, mainstream e-paper reading devices.

2 Nolan Bushnell

CEO of Atari Corporation (1971-1978)

Memorable Because: Bushnell may not have invented video games, but he invented public demand for them. He founded the now legendary video game company Atari in 1971, sold it to Warner Communications in 1976, and ultimately grew Atari into the largest video game company on earth with $800 million in sales before he left in 1978. Under his stewardship, Atari created the video arcade game market, launched a successful series of home Pong consoles, released the famous Atari 2600 game console, and developed the company's first home computer. He also hired Steve Jobs to work at Atari in 1974.

3 Ken Olsen

Memorable Because: Olsen co-founded Digital Equipment Corporation (DEC) in 1957 and led the company through a fruitful period in which DEC developed the influential PDP and VAX line of mainframe computers and the first minicomputer, the PDP-8. DEC's computers

heavily influenced the microcomputer industry that followed (and influenced almost every CEO on this list).

Olsen is also well known for his most controversial quote, "There is no reason for any individual to have a computer in his home," which he said in 1977. After enduring some decades of ridicule over the statement, Olsen later clarified that he was referring to the 1950s-era concept of a computer controlling every aspect of a house's operation, ala the Jetsons. The quote lives on nonetheless.

4 Michael Dell

CEO of Dell, Inc. (1984-2004 & 2007-present)

Memorable Because: Few individuals symbolize the monstrous PC hardware market like Michael Dell, founder of Dell Computer Corporation. In 1992, Michael Dell became the youngest CEO with a company in the Fortune 500 at age 27. In 2001, Dell (the company) toppled Compaq to become the largest PC maker. That success propelled Mr. Dell's net worth to a staggering $14 billion, making him one of the richest men in America. Dell's tenure as CEO may not last forever, but his name will live on in the company he created.

FIRST THE AR.DRONE, NOW THIS?

A couple of issues ago we covered the coolest toy $300 could buy - the AR.Drone - a quadrocopter that can be controlled from an iPhone. But could the newest sensation be the Orbotix Sphero - an iPhone controlled Ball? Yes a ball. Watch it in action and decide for yourself.
http://bit.ly/fAyBhd

TEN BILLION DOWNLOADS LATER

Apple finally hit the magical figure of ten billion downloads on iTunes. There was a promotional event planned around it and the winner Gail Davis from UK won $10000. Ten billion downloads later Apple says that the App fad has just begun and would continue to grow. Read more on
http://rww.to/dMgBks

VID.LY TO THE RESCUE

For all those annoyed with videos not playing on their mobile devices, a new service called vid.ly from Encoding.com is the solution to all your problems. Vid.ly can transcode to 14 different formats allowing you play on variety of devices. Learn more on
http://rww.to/goBM2L

5 Bill Gates

CEO of Microsoft (1975-2000)

Memorable Because: Bill Gates co-founded Microsoft, a company that pioneered the concept of commercial software for microcomputers. Under Gates' intensely competitive reign, Microsoft went on to dominate the PC software industry--first with its ubiquitous versions of the BASIC programming language, then through MS-DOS on the IBM PC, and most recently through Microsoft Windows, which is currently the world's most popular PC operating system. His astounding commercial success with Microsoft made him both the wealthiest man on the planet (from 1995-2009) and a household name.

6 Andy Grove

CEO of Intel (1987-1998)

Memorable Because: Grove joined Intel in its earliest days of the late 1960s, eventually rising to President in 1979, then CEO in 1987. Under his guidance, Intel transformed from a prominent manufacturer of memory chips into the world's largest maker of microprocessors, which made the personal computer era possible.

7 Thomas J. Watson, Sr.

CEO of International Business Machines (1924-1956)

Memorable Because: Watson brought IBM into the digital computer era, building the

company into the world's foremost computer manufacturer of the 1940s and 50s. He was also responsible for renaming "Computing Tabulating Recording Corporation" International Business Machines (thus, IBM) in 1924. Watson is well known for supposedly saying, "I think there is a world market for maybe five computers" in 1943. However, there is no documented evidence that he actually spoke those words, which we find quite amusing today.

8 Mark Zuckerberg

CEO of Facebook, Inc. (2004-Present)

Memorable Because: Zuckerberg created a social networking Web site, Facebook, with 600 million regular users that has transformed the social fabric of an entire generation and beyond. His controversial positions on personal digital privacy have brought awareness of the subject to new heights. He is also the subject of a critically acclaimed (and historically questionable) film, The Social Network. At a mere 26 years old, he is personally worth $6.9 billion.

9 Gordon Moore

CEO of Intel (1975-1987)

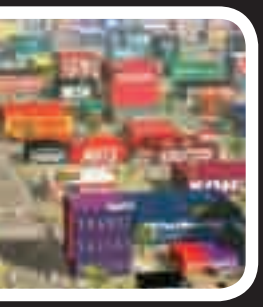
Memorable Because: As CEO of Intel, Moore guided the company through one of its most successful and influential periods. He is more notably the creator

of "Moore's Law," which states that the number of transistors on a chip will double about every two years. For over 40 years, his prediction has been correct. Moore's Law has been extrapolated by futurists who use it as a basis of dramatic predictions about the future of computers and humanity itself, ensuring that Moore's legacy will live on for some time to come.

10 Steve Jobs

CEO of Apple, Inc. (1997-present), Pixar (1986-2006), NeXT (1985-1996)

Memorable Because: Steve Jobs has been responsible for pushing more innovative and influential products into the consumer PC marketplace than any other human being. His achievements include: The Apple II, the Macintosh, the popular GUI-based OS, the first entirely computer generated feature film (and a string of blockbuster follow-ups), the iMac, iTunes, Mac OS X, the iPod, the iTunes Music Store (which made Apple the largest music retailer in the world), the iPhone, the App Store, and the iPad. Steve Jobs may not have personally created all of those products, but he made them happen. Jobs is also known for his eccentric and demanding management style, his zeal for secrecy and showmanship, and his laser-like focus to pursue what he deems important. He will be remembered for a very long time.



If you guys haven't seen the Logorama video yet then you've ain't seen nothing! This video won an Oscar for the best animated film last year. Everything in the video is made of logos, from the AIM messenger guy to the Michelin man. You've got to watch this one. See it on http://bit.ly/gKYzwE

DO YOU LIKE THE WORLD VIEW SECTION?

With our new World View section, we're trying to expose you to more international stories and culture. Instead of just a list, we hand-pick the stories we think you'd like. However, in order to ensure that we're doing a good enough job, we'd love to hear your feedback and comments.

IF YOU LIKE, HATE, SKIP OR ABSOLUTELY LOVE THIS SECTION, LET US KNOW.

Send in your feedback to editor@thinkdigit.com

(PRODUCT LAUNCHES)

MOTOROLA XOOM

Well it's not launched yet but we couldn't resist. With some mind boggling features such as the Android 3.0 Honeycomb OS, Tegra 2 processor, 1GB RAM, its certainly a product to get excited about. Rumoured to Launch February 17 for $699.

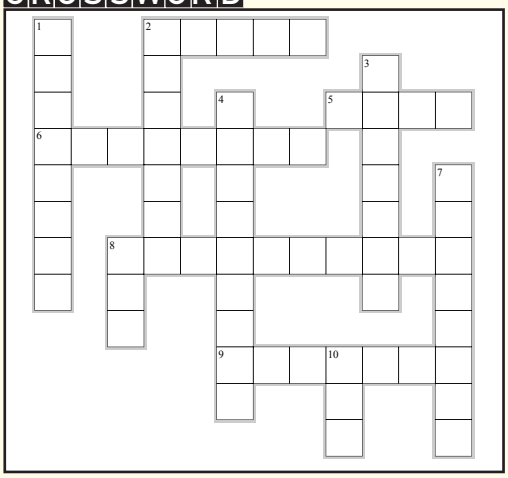
SAMSUNG WB 210

A high zoom, wide angle camera which boasts intuitive features. It has a 12x optical super zoom lens set in a slim-line 22.4mm body. The 21mm wide angle setting lets you capture much more at close range. Get ready to take even bigger group pictures

XPERIA ARC

Sony Ericsson launched the latest member of its Xperia family - the Xperia Arc. This slim 8.7mm thick phone comes with a 4.2-inch touchscreen running on Android 2.3. It houses an 8.1 MP camera and is capable of shooting HD videos.

CROSSWORD



ACROSS

2. Display other than eink used in Leaf Mega
5. The graphical BIOS
6. First ebook reader
8. CEO of intel from 1987-1998
9. Qualcomm's new colour display

DOWN

1. New eink watch company
2. Levels of gray in Kindle 3
3. iPhone 4 would soon be available on this network
4. Android's OS for tablets
7. Garry Kasparov lost to this comp in 1996
8. Sony Ericsson's new Xperia
10. Amazon's proprietary ebook format

ABSOLUTE TIMEPASS

Top 3 YouTube Picks

Make sure your boss doesn't catch you goofing off with one of these playing on your PC screen

http://bit.ly/dNUrsT
Duration: 3m 00s
Watch the Fine brothers race against time to spoil 50 comedy movies for you in three minutes. Watch at own risk.

http://bit.ly/ekClA0
Duration: 10m 18s
Kai W goes crazy with the Canon 300mm L shaped lens as he destroys it for the sake of fun.

http://bit.ly/dHzNYG
Duration: 7m 15s
The story of Wind and Mr. Wig is hand drawn on a transparent glossy sheet with a voice narration in real time.

CFO 100

RECOGNISING THE WINNING EDGE 2010

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RECOGNISING THE WINNING EDGE

The CFO100 will culminate with a leadership conference and gala evening on **March 15, 2011** at the **Taj President Hotel, Mumbai** (deadline for submission of nominations is **February 16, 2011**)

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Hack the Web

Nishith Rastogi
readersletters@thinkdigit.com

Greasemonkey is an extension for Firefox that permits the end-user to install scripts which makes on-the-fly changes to HTML web page content on the DOMContentLoaded event. This occurs immediately after the page loads in the browser. The changes are executed by various UserScripts, written primarily in JavaScript, which are typically site-specific. The scripts can add features or modify the existing behaviour of the website. There was an addon 'Greasemetal' available for Google Chrome to perform similar functionality, but now its development has ceased as since Chrome 4.0, there is native support for UserScripts. The major advantage of GreaseMonkey being the ability to personalize a web site on the client side, as in even if you are not the author of the site, you can still customise it according to your needs.

To begin you can install the GreaseMonkey addon from https://addons.mozilla.org/en-US/firefox/addon/748/ Once installed you can enable/disable the addon on-the-fly by clicking on the 'Monkey Face' icon in the statusbar. You can find a thousands of UserScripts at http://userscripts.org .

Right-click on the 'Monkey-Face' icon and click on 'New User Script'. For NameSpace you should enter `http://userscripts.org` if you are not planning to host the script on your own web site. The next row 'Includes' is the list of web sites that the script will affect and the 'Excludes' is the exact opposite. After filling in all the details above, click on 'OK', then select the text editor of your choice. At this point you will be presented with a skeleton script that looks like:

```
// ==UserScript==
// @name  Digit_Dev
// @namespace http://userscripts.org
// @description  For Demonstration
// @include  http://*.facebook.com/*
// ==/UserScript==
```

This is called the metadata information. As you would have guessed you can create the above template manually also from the scratch if you do not appreciate the wizard interface for creating a new script. A small tip would here would be to match both 'http' and https' in your include list. Else the script might not execute over a secure connection.

A simple Hello World script:

```
[AlertBox]
(function()
{
// ==UserScript==
// @name      Digit_Dev
// @namespace http://userscripts.org
// @description For Demonstration
// @include     *
// ==/UserScript==
alert('Hello Digit Readers');
})();
```

From here on we won't mention metadata anymore. A simple hide image script:

```
var images = document.getElementsByTagName('img');
for (i=0; i<images.length; i++)
{
  images[i].style.visibility = 'hidden';
}
```

Here, `var images = document.getElementsByTagName('img');` declares a variable called 'images'. Each variable is an object in itself, and has associated members like `var_name.length`, which returns the length of an array. Next the object `document` is the web page itself as described above. From it, by using the member `'getElementsByName'` of the object 'document' we can extract any set of tags from the HTML code. A typical code for insertion of images looks like

```
<img src="Digit.jpg" alt="important for better google ranking, also the mouseover text"]
```

Hence the parameter `'img'` for `getElementsByTagName` function.

```
for (i=0; i<images.length; i++)
```

This is the very familiar, 'for' syntax. For those who are completely unaware. 'for' is a loop, which executes the statements enclosed in the immediately following paranthesis repeatedly. Here it executes it `i` times, where `i` starts at `0`, goes till `images.length` or the number of images in the document, in an increment of 1 (`i++` is equal to `i=i+1`)

Then `images[i].style.visibility = 'hidden';` Here as explained above images is a array of image, and `images[i]` refers to i^{th} image. Each image has a property called style, which has further properties, one of them being `visibility`, which as the name suggests shows/hides an image. The `.` operator in most languages is used to access members of an object class or basically properties of any variable. Of course like above, each of these properties can further have their own properties.

OK, now moving on the next example. Have you ever been irritated by the excessive usage of the words like `Maah` for `My`, `Da` for `The`, or you just want to make the web language a little kid safe or let us say suitable for a living room projector. Then this example of Text Replacement would be perfect for you. This script is by JoeSimmons.

```
// ==UserScript==
// @name            Text Replacement
// @namespace       http://user-scripts.org/
// @description     Smart text replacement, will ignore tags
// @include         http://*
// @include         https://*
// ==/UserScript==
// Format: "Word To be Replaced" : "Replacement Word"
```

Confirmation box ensures you don't install a script by mistake

```
var word_list = {
"Mah" : "My",
"Puhleaze" : "I am an idiot",
"CWG" : "Common Wealth Games",
"FT"     : "FastTrack",
"":""};
//This is to indicate that the
word_list has ended.
//Notice the comma after each
entry but the last one. Also
notice the
//semicolon after the curly paren-
thesis. C++ Structures anyone?
String.prototype.prepareRegex =
function()
{
return this.replace(/([\
[\]\^\&\$\.\(\)\?\/\\\+\{\}\|])/g,
"\\$1");
//this is keyword signifying the
current object, exactly like in
Python.
//Regular Expression is not
explained, as it will worthy
another tutorial.
//Reading an one page online tuto-
rial is recommended
};
// To ensure word replacement
doesn't happen in source code
under tags like link etc.
function isOkTag(tag)
{
return (",pre,blockquote,co
de,input,button,textarea".
indexOf(","+tag) == -1);
}
var regexs=new
Array(),replacements=new Array();
//Searching for Matching words
which needs to be replaced.
//push and pop method provide
stack type access. Push inserts
and Pop returns the
//items pushed in.
for(var word in word_list) //Loop
for every word in word_list
{
if(word != "")  //Remember the
last word was a blank in word_list
{
regexs.push(new RegExp("\\b"+word.
prepareRegex().replace(/\*/g,'[^
]*')+"\\b", 'gi'));
replacements.push(word_
list[word]);
}
}
//Evaluate method results in a
XpathResult object, the '6' here
in the parameter list indicates
//the output format.
var texts = document.eval-
uate(".//text()[normalize-
space(.)!=''],document.
body,null,6,null), text="";
//Notice closely, the for is ini-
tializing two variables instead of
the usual one.
//snapshotitem method provides
access to matching nodes, modifi-
cation of 'document' doesn't
//invalidate the collection. 'I'
is the index passed, specifying
the position of matching node.
//'replace' is method of the
string class performing the func-
tion of replacing first
//argument by second argument.
//similarly tolowercase makes the
match case insensitive.
for(var i=0,l=texts.snapshot-
Length; (this_text=texts.
snapshotItem(i)); i++)
{
if(isOkTag(this_text.parent-
Node.tagName.toLowerCase()) &&
(text=this_text.textContent))
{
for(var x=0,l=regexs.length; x<l;
x++)
{
text = text.replace(regexs[x],
replacements[x]);
this_text.textContent = text;
}
}
}
//Remember to not use a word
processor, as it may convert your
double-quote marks into smart-
quotes.
```

The above script demonstrates to a small extent the power that Greasemonkey bestows on the end-user. As a final hack, we will learn how to embed an image into the source code itself. Yes by that we mean representing an image in text. The benefit of doing that is obvious. If you want to insert an image anywhere via a Greasemonkey script, in the conventional manner you would be putting insane load on the server hosting that image, since every time someone loads the image, that image will need to be fetched from the server and displayed. This may also increase page loading time. This problem arises of a fundamental limitation of Greasemonkey scripting because it does not natively provide any way to bundle resource data like photographs, audio etc along with the script, but then expecting greasemonkey scripting to substitute an entire language might be a little too much. So here is how you go around it.

Instead of posting the image to a web server and having your user script fetch it, you can embed the image data in the script itself by using data: URL. A data: URL allows you to encode an image as printable text, so you can store it as a JavaScript string. And Firefox supports data: URLs natively, so you can insert the graphic directly into a web page by setting an img element's src attribute to the data: URL string. Firefox will display the image without sending a separate request to any remote server. You can construct data: URLs from your own image files at `http://software.hixie.ch/utilities/cgi/data/data`.

What you can do with GreaseMonkey scripting is limited only by your imagination and your set of technical know-how. This was very brief introduction to the world of GreaseMonkey scripting. Happy Personalisation.

Flickr.com before and after...

Say cheese!
Japanese designer Motoi and Daito introduce the LED smile that makes your teeth flash in different colors. What'll they come up with next?

Sony expands Qriocity
In the face of tough competition from the likes of Grooveshark and Last.fm, Sony is gung-ho about its music streaming service

Error Code 43, SMPS fan not working, Disabling ctfmon

Digit Q&A answers these queries and more...

Upgrading to a 64-bit OS

I use Windows 7 32-bit OS, and I want to upgrade to 64-bit without any data loss. I need to do this because I want to install Adobe After Effects CS5. My system configuration is as follows:
Processor: Intel Core 2 Duo E8300
Motherboard: G41MT-ES2L
GPU: Radeon HD 5770
RAM: 2 GB DDR3
OS: Microsoft Windows 7 Ultimate Edition.

Shubhankar Sahu

You can upgrade from the Windows 7 32-bit OS to 64-bit OS by doing a clean install. You will need a 64-bit copy of the Windows 7 Ultimate Edition which comes with its own set of 64-bit drivers (they are not compatible with 32-bit drivers). You will need to backup all your data onto an external drive before the clean install. It would also help if you could add 2GB DDR3 RAM to the existing configuration.

Dual booting issues

I have a Compaq laptop with the following configuration:
Processor: Intel Core 2 Duo (2.2 GHz)
RAM: 3 GB
Hard disk: 360 GB.
I want to use Linux and Windows simultaneously.

Shafique Azmat

You will need to dual-boot your system to have both Windows and Linux running on the same machine. Dual booting is not all that difficult as people think. To dual boot, you need to create two partitions in your hard disk. Get all your data backed up before you plan to partition your hard drive. First install Windows in your C drive, and then install Linux on the other partition. While installing the distro of your choice, keep in mind the size of the partition you want to install Linux into. The installation process of some distros such as PCLinuxOS is particularly friendly for dual booting. The Linux boot loader will allow you to choose Windows or Linux during startup. If you simply want to try out different distros, you needn't even install them. You can use VirtualBox to run Linux on a software layer.

Boot selection screen

SMPS fan not working

The SMPS fan on my computer does not work, but my computer works absolutely fine. I have seen many computers where the fan does not rotate and some which work. How can I switch on the fan?

Praik Ranjan Bhuyan

SMPS fan may not work for either of the three reasons:
1) The SMPS is out of order and you need to replace it.
2) Cable providing power to the fan is cut somewhere.
3) The fan has jammed due to accumulation of dust or lack of lubrication.
As you say your system is working fine, it seems like either of the last two cases. You will have to take it to a service centre to get the fan cleaned. If your computer also does not start, then you will have to replace the SMPS.

Pictures vertically squeezing

I have a Samsung Syncmaster B 2030 LCD Monitor. All the pictures from my digital camera appear squeezed vertically on screen. How can I adjust it so that I can get actual view? I am using Windows 7 on AMD

Ubuntu update manager

X4 635 with Radeon HD 5670 Graphics Card.

Kishore Das

Vertical squeezing is a result of a mismatch between aspect ratios. The images that you have shot on the digital camera may have been shot with an aspect ration of 4:3. When you view such photos on a 16:9 monitor, you will notice vertical squeezing or two black bars on the side. You should try changing the aspect ratio of your monitor to 4:3 or Photo display mode.

Upgrading Ubuntu and VLC

I am using Ubuntu 10.04 and I want the 10.10 version without formatting my hard drive, How do I update? Secondly, I use VLC media player 1.0.6.

a. How can I update to ver 1.1.5?(deb file)

b. How can I play YouTube videos on it? I tried it via Open Network stream and then pasted the URL, but it gave me an error : could not find URL.

Lutfan Lubaib

You can update to Ubuntu 10.10 from 10.04 as follows. Your internet connection has to be on. Go to `System > Administration > Update Manager`. Click Settings button in the lower left hand corner and select the Updates tab. In the Updates tab, under Release Upgrade, select Normal Releases from the Show new distribution releases. Close the tab and then click on Check button in the Update Manager, which should show the new release 10.10. Click Upgrade to upgrade to Ubuntu 10.10. After the upgrade is complete, reboot the system. For updating VLC Player, go to Help, and click on 'Check for Updates'. This will connect to VideoLAN servers to check for updates, and will prompt you to uninstall 1.0.6 before upgrading to 1.1.5. For playing YouTube in VLC, you might want to recheck the URL that you fed for the stream. Since you mentioned that the internet speeds are slow at your end, you can use the download latest version of VLC and Ubuntu from the Alpha DVD which comes with the magazine.

Attaching multiple drives

My configuration is as follows: Core i3 processor; Windows 7 (32-bit) OS; 4GB RAM; NVIDIA 1 GB card; 1TB HDD. I want to know if I can attach multiple HDDs of 1TB or 2TB memory without formatting the PC. I would like to know if it would be a wise decision to buy an external HDD of 1TB for storage purposes. My computer remains of for long hours for downloading purpose only.

Karan Singh

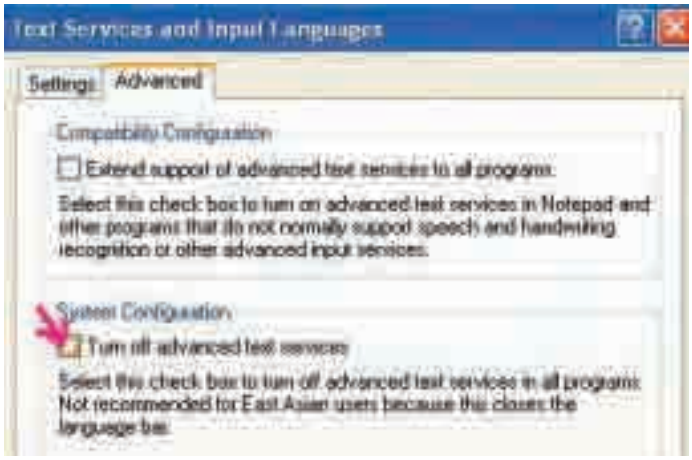
You can attach multiple hard drives to your motherboard depending on the number of free SATA ports you have. As long as you are not using the new drive as your OS drive, you just have to connect the HDD to the SATA drive and it will appear as a new drive. By going into `My Computer>Management > Disk Management` and selecting your new drive, you can make the appropriate partitions. The only advantage you will get with an external drive is portability. It would not make sense to go for an external hard drive if you are not going to carry around your data. Also it will be comparatively more expensive than an internal 1TB drive.

Ctfmon process running in the background

I am facing a problem everytime I shutdown of my PC. A dialog box opens up saying ctfmon ending now and then asks me to click on End Now option. This isn't any major problem but I would be still glad to know how to repair it. It looks a bit odd.

Manas Dasgupta

Ctfmon is a Microsoft process which controls the Alternate User Input and the Office language bar. It is found in `C:\Windows\System32`. Right click on task bar and go to `Task Manager > Processes` tab. Under Image Name look out for ctfmon.exe. Go to `Run > intl.cpl` which will open the `Regional and Language Options > Languages > Details > Advanced`. Select the option Turn off advanced text services. The next time you run task manager, you will not find ctfmon running in the background.



Disabling advanced text services which stops ctfmon from running in the background

WAT on browsers
The WAT add-on enables Thunderbird browsers to open web sites and services directly in the users email software

10 billion Apple downloads!
Apple has announced that its Apps Store now has 10 billion applications, including games and software programs

Blank laptop screen

I have a Compaq V3000 laptop with AMD processor and an NVIDIA graphics card. When i switch on the laptop, the screen remains blank. The service guy I checked it with says that there is no problem with the HDD and RAM is working fine. He saus that the problem is with the graphics card and i need to replace it. It will cost me ₹4,500.

Anuroop Nair

First try connecting your laptop to another monitor, if that monitor turns on, then there is no problem with the graphics card. The backlight of your LCD may have stopped working which needs to be replaced. As you have not mentioned the name of the NVIDIA card that is housed in your laptop, we cannot confirm if the amount you are being charged is appropriate or not. In case the other monitor does not light up, but you notice the system running, then your graphics card is at fault and will need replacement. The reason for non working graphic card can be overheating or physical damage occurring by mishandling of the laptop.

Right power supply

I want to buy a Zotac GeForce GTX 570. But I do not know if my system and power supply support it or not. My system configuration is : Processor : Intel Core i5-760; Motherboard : P55D Deluxe; RAM : 2 x 2 GB DDR3 1600 MHz; Hard Disk : Western Digital 1 TB. Cooler : Cooler Master V6 GT; Cabinet : Cooler Master Elite 430; Power Supply : Cooler Master Silent Pro Gold 700 W. Please solve my problem.

Pranjit Borkotoky

Your configuration looks good for the card you are planning to buy. As long as you use a single GTX 570 card, the 700 W power supply is more than enough.

Torrents won't download

I am using a LAN 100 Mbps connection. None of the torrent download client is able to download any torrent on my system. The torrents get stuck to 0 percent and don't move forward. I have already used Vuze, BitTorrent, uTorrent, etc. What is the reason? Please tell me the reason. Also tell me how to find this default speed

Ankit Yadav

The most likely reason that the torrent client isn't able to download is because there may not be any seeders sharing the torrent, or there is a firewall which is preventing data from entering your system - in which case you will have to disable your system's Firewall, Whenever you download a torrent file, you will see something called Seeders / Leechers. There should be more of seeders and less of leechers for faster download of torrent files.

Un-install USB controllers from the device manager and restart PC

Error Code 43

I have a 250 GB external hard-disk which I use with my Dell Inspiron 15R laptop (Core i5 processor, Windows 7 Home basic, 500GB hard disk drive, 4GB RAM). Everything was working fine till a few days back when I connected my hard disk to my laptop. I got a message, "USB device not recognized." When I clicked on the message, it showed the unknown device properties. It said, "Windows has stopped this device because it has reported problems. (Code 43)". I disconnected the device and connected it but same message appeared again. I tried to update the drive, but it said that the drive is up to date.

digit TV

On the DVD

Check out recent video reviews of the coolest products

This time we have compared eBook readers

What may be the problem and how can I reuse my hard disk? I have some very important data in it that I don't want to loose it. Please Help.

Paras Basera

You will get a Code 43 error when Windows has stopped the device as it has some problems.It may be due to a faulty driver or faulty hardware ie. USB drive in this case. You should try uninstalling the USB drivers and then restarting the system. Go to Start › Run and type devmgmt.msc. This will open up the Device Manager tab. Double click to expand the Universal Serial Bus controllers. Right click on Host Controller and click Uninstall › OK. Uninstall all the items under Universal Serial Bus controller and then restart the system. Windows 7 automatically reinstalls USB controllers on startup. Try connecting your drive to see if it is working now.

Android

Introduction

Every time you use your smartphone, it's quite likely that you'll encounter a new feature thereby making your learning experience rather interesting. Here are some tips for improving your Android experience.

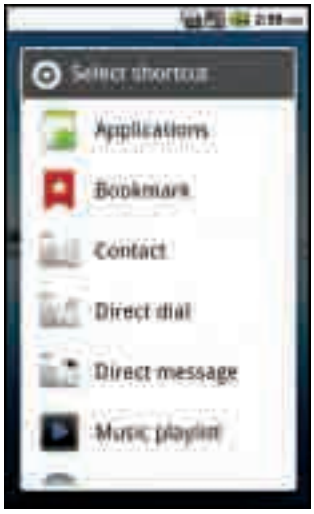
Android 09
iOS 12
IE9 beta 14
Symbian^3 15

General Tips

Organise Home and Speed Dial

Instead of having too many icons on your home screen, group your applications into folders. To do this, Tap and hold Home Screen and go to `Folders > New Folder`.

A new icon called `New Folder` will appear on your Home screen. You can rename this folder and holding your finger on the title bar.

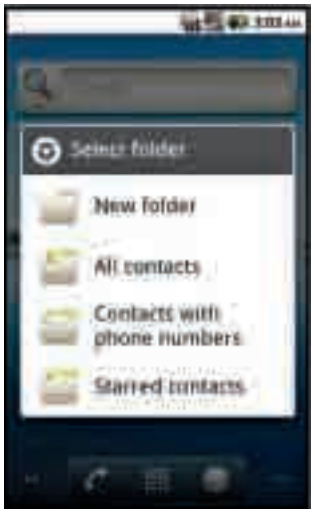


Setting Direct Dial

You just need to press and hold any icon on the Home Screen and drag it to the folder. You can use folders to queue your speed dial / message list using the direct dial option from the shortcuts menu.

Tap and hold the Home Screen and then go to `Shortcuts > Direct Dial (or, Direct Message)`.

Alternatively, you can also select other available options with folders such as `All Contacts` which gives you a Home Screen shortcut to your contacts directory, including contacts from your Google account and social networking accounts. To include only the contacts with phone numbers and have the list as a dial list, you can choose `Contacts with phone numbers`.

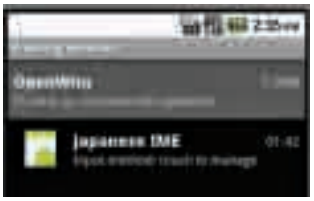


Folder Options

Conserve CPU

Background applications not in use take up substantial resources including your precious processor power and kill battery life. You can conserve battery life by killing these applications. To do so, go to `Settings > Applications > Running Services`.

Alternatively, you can install Advanced Task Killer from the Android Marketplace and kill applications that are not in use. Advanced Task Killer also provides a home screen widget that automatically kills idle applications. Activate the widget by tapping and holding your finger on the home screen, and selecting the Advanced Task Killer widget from the widgets menu, after you have installed the application from the Android marketplace.



Running services screen

Multitasking

Holding down the home key opens the recently used apps. Selecting any of these directly switches your screen to the current state of the app. In recent versions of Android (Froyo and above), a task manager has been included as well so that you can directly kill idle apps.

Instant music playlist

If you want to save on screen taps required to play a particular playlist, you can add the Music playlist directly to your home screen. To do so, Tap and hold Home Screen and go to `Shortcuts > Music Playlist`.

Adding playlist to Home Screen

This will launch a list of your playlists from the music app. You can select any one of your pre-saved playlists, or select to Play All.

Save web images

You can directly save the image you find on the web, or set it

Saving images from the web

as your wallpaper by. Tap and hold the image and then tap on `Save Image`. This image will be saved in the gallery.

Quick find

Find a keyword across your web page quickly by tapping the menu button and selecting `More > Find on Page`.

Find on Page

Maximise your typing experience

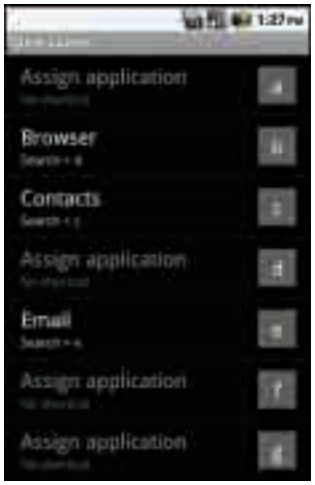
Keyboard shortcuts

If your Android smartphone supports a physical keyboard, you can set shortcuts to open applications quickly by modifying the options in `Settings > Applications > Quick Launch`. The default settings are as follows:

`Search + b` opens your Browser.
`Search + c` opens Contacts
`Search + e` opens Email
`Search + p` opens Music
`Search + s` opens Messaging

Auto-complete dictionary

Sometimes while typing with the predictive text feature on T9, you may accidentally send a wrong word, for instance. We faced the same problem with typing `the`, it kept suggesting `thwarting`! Go to `Settings > Language and Keyboard > User Dictionary`.



Quick Launch settings menu

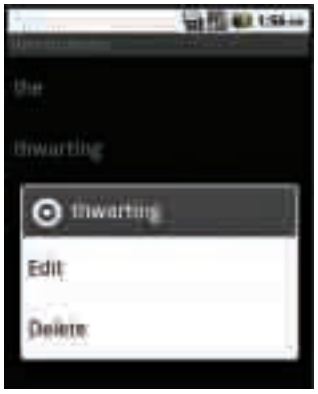
Press the menu button to add new entries or tap on existing ones to edit them.

Voice type

This feature works on Android Éclair and newer versions. You can use your smartphone as a personal dictation machine. Launch the keyboard by tapping on any text field. Select the microphone icon on the keyboard. To record your message, all you need to do is speak into your microphone. For punctuating, saying `comma` and `period` enters the respective punctuation. This feature, however, requires a proper data connection.

Copy pasting

Copy and pasting on Android Éclair and older versions of Android is not as comfortable.



Editing Auto-complete dictionary

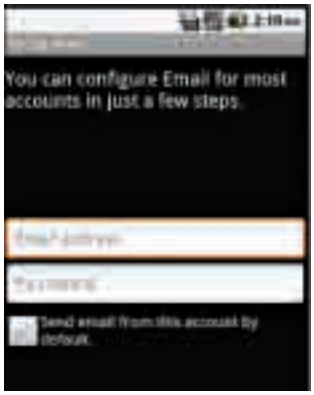
Getting accustomed to text selection will help you significantly. Tap and hold your finger over the text you want to copy, cut, paste or select. Push and hold your finger down the track pad button.

A menu appears where you can select the action you want to take.

Email

Multiple accounts

On devices with Éclair and above, you can link multiple accounts. Open the Email application, and enter your login credentials to set up your first account. After setting up your first account, go to `Menu > Accounts > Menu > Add account`. Enter the credentials for this second account following the instructions used during the first account. You can switch between both inboxes by pressing the menu button, selecting accounts, and choosing the account you want to check your mail for.



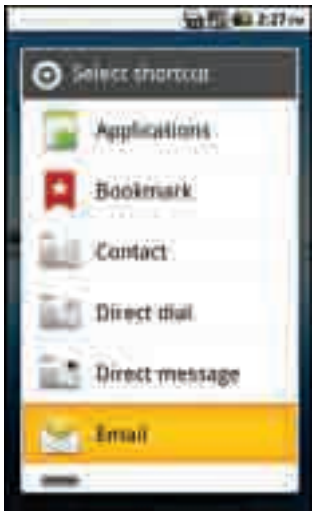
Setting up Email

Mute conversations

If you have long running threads you don't want to follow, you can conveniently mute conversations. To do this, go to `Menu > More > Mute`.

Set Home Screen Labels or Accounts

If you want to view only i mportant email on your smartphone, or email to a specific label or account, place that label or account on your home screen for immediate access to your priority mails. You can select this by tapping and holding your finger on the Home Screen . Go to `Shortcuts > Email`.



Home Screen Email Account shortcut

Switching GPS on

GPS

Use your location

Find places around your location based on GPS detection faster by activating My location. This can be done by switching your GPS `ON` from `Settings > Location and Security`. Select My Location from `Settings > Privacy`.

Sync favourite destinations

Sync your tagged destinations between your web account and your smartphone with some simple and quick steps. In the Google Maps app, enter the address of any regularly visited destination, and select the star that appears on the top right corner of the Maps screen. This syncs the location with your Google account and can be retrieved from either your PC or your Android phone.

Quick directions

For a faster navigation, you can use the starred addresses to get directions on Google Maps. To do this, open your Google Maps app, select directions from the menu, select the icons at the end of Start point and End point. A list of starred destinations will

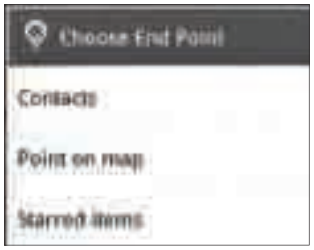
Faster directions

appear there. Select any of the starred destinations to make them starting or ending point for your navigation.

You can also select my location to the end point to navigate your way back to your hotel on a vacation.

GPS shortcuts

You can save locations you visit regularly, on the home screen. This way, you can screen your route considering traffic densities and the route type. To do this, tap and hold your finger on the home screen, and select Shortcuts from the `Add to home screen` menu. Choose `Directions and Navigation`. This sets your current location as the default starting point. All you now need to do is set the destination. You can give a name to this route, select an appropriate icon, and pin it to the home screen. The GPS icon on your home screen opens the route in Google Maps on tapping, along with the traffic details. In case you find heavy traffic, you can reroute by selecting the icon in the bottom right corner. This gives you three alternate options, which you can select for your navigation.



Setting navigation shortcuts

Security

Screen lock

Protect your device with pattern screen lock option; or PIN and password screen lock option on Android Froyo and newer versions of Android. You can do this by selecting 'Set Unlock pattern' from the Security menu under Settings. The available options are Pattern Lock: swipe a pattern on a 3*3 matrix.

Setting Screen lock

PIN: Enter a numeric PIN to unlock screen.

Password: Enter an alpha-numeric password to unlock the screen.

Protect passwords

Set a password to safeguard your web accounts from data theft. This acts like your master password that veils your credentials for other web sites. You can set this from the 'Set Password' option under 'Location and Security' menu in Settings.

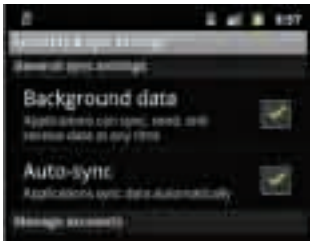
Battery life

Background Data and Auto Sync

Disable the background data and auto sync options to conserve battery as running

Setting credential storage password

network processes consume substantial amount of battery over EDGE or 3G connections. This can be done by disabling the 'Background Data' option in 'Accounts and sync' menu of Settings.



Setting background data

However, sometimes you want sync to be active. In such cases, you can trim the auto-sync interval from the menu options when the app is open.

GPS radio

Turn off the GPS radio unless absolutely necessary. You can do this by deselecting the `Use GPS Satellites from Location` settings.

Wi-Fi notifications

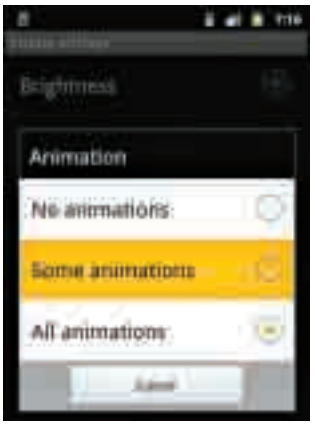
When within Wi-Fi range, Android, by default, notifies

GPS on/off Toggle

you of available networks in the notification area. Turn off Wi-Fi notifications from wireless and networks settings.

Animations

Live wallpapers and menu animations drain battery life.



Animation settings

You can disable or limit these by choosing between `No Animations`, `Some Animations` or `All Animations` from the Animation settings in Sound and Display (or Display in Froyo and newer versions).

iOS

Leave some space

Never fill up your iPhone completely. Make sure to leave at least 500MB of free disk. This way your existing apps would be able to load and save documents, and get updates if necessary. Also, filling up your iPhone or iPod Touch to the brim with media files will result in a very slow running device.

Multitasking and viewing open applications

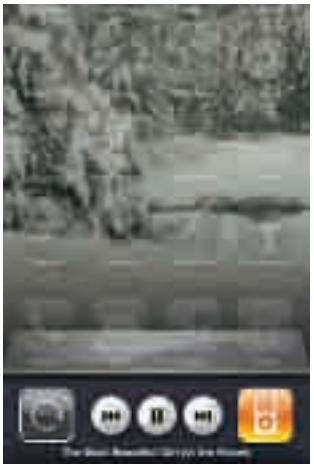
The primary new feature in iOS 4 is the ability to multitask. Unlike previous versions of iOS, you can now use multiple applications together.

An iPhone warning over disk space

You can also listen to music on Pandora, while checking your email or browsing the internet. To view all running applications and swiftly switch between different apps that are already open, double-tap on your iPhone's Home Button. Select the app of your choice and control it while the other apps are running in the background.

iPod Controls

In the previous versions of iOS before iOS 4.0, double-tapping on the iPhone or iPod Touch Home Button would give you access to the iPod controls, but now with the introduction of the multitasking feature, you will have to reach the iPod controls in a different way. Simply double-tap the home button and while the multitasking shelf shows up, slide to the left of the screen and then your



Tap on the iPod icon to access your music collection

You can listen to music even while sending an email

iPod controls come into view. You can add controls into this shelf like you do for Pandora.

Quitting applications

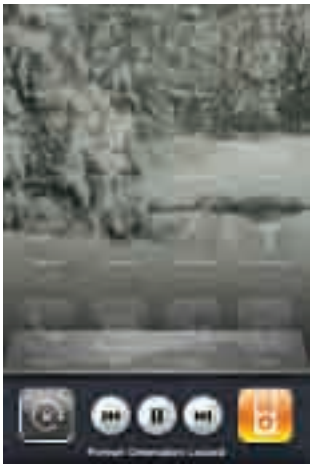
Multitasking is a brilliant feature in the latest version of iOS.Nevertheless, there are times when you want to close a program either because it's a hindrance and you don't want it to eat up your battery life by running in the background. In order to close an app, double tap the home button to access

You can easily quit applications

the multitasking drawer. Simply tap and hold on the app icon. The app should start jiggling with a red circle and a minus sign on the top left corner of the icon. Just tap on the red circle and it will shut down the app.

Lock the orientation of your screen

Because of the inbuilt accelerometer present on the iPhone, iPad as well as iPod, iOS automatically shifts orientation of the screen either from landscape to portrait and vice versa based on the movement of the device. At times, this would be undesirable. In order to lock the orientation of your screen, double-tap on the Home Button of your device for the multitask drawer to pop up. Simply swipe to the left menu and again to the left of the iPod controls. You'll see the orientation lock button. Tap on this to lock in portrait mode.



Portrait orientation locked

Searching on the iPhone is intuitive

Searching the web using Spotlight

Instead of opening Safari and navigating to a search engine, you can directly do it from mobile spotlight. Navigate to the search screen on your iPhone and type in what you are looking for. iOS will give you options to choose between Web or Wikipedia.

Folders

You'll begin using multiple home screens as the number of apps on your device keep growing by the day. By making use of folders, you can club multiple applications together into one icon and minimise the usage of your home screen space for better navigation. Tap and hold on an app till

You can move apps to folders

your apps start jiggling. Drag one app onto another to create a folder and put them both in it. Your iPhone will automatically give the folder a name based on the common category of your apps. You can choose to change the name of the folder. Similarly you can drag more apps into this folder. You can add up to 12 apps into one folder. To remove simply drag the app put of the folder.

Spell check

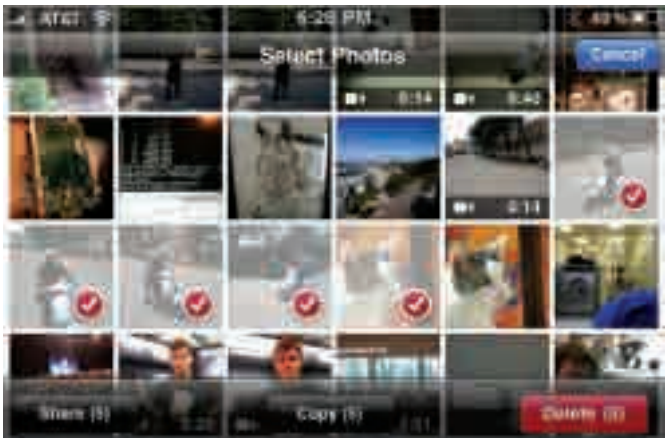
Despite the advantages of the auto correct feature present in iOS, it also has the ability to add to your agonies by changing `hell` to `he'll`. iOS 4.0 can now inform you when a word is misspelled by placing a red scribbled line right underneath the misspelt words. To change any spelling you simply have to tap on the word once and your iPhone will give multiple options.

Copy vs. Share images

iOS 3.0 had the ability to let you copy as many photos as your iPhone's RAM could support into an email. But Apple has fixed this bug of sorts in the iOS 4. Now iOS only allows you to copy a maximum of five images into an email. But you can share up to nine images through an MMS as well.

Use spell check to get rid of errors

While sharing your images through email, you also have the choice to select the size of the images. But if you still want to send more than five images in an email, you can copy and paste five images at a time into an email. Copy five images, paste them into an email, then simply copy and paste five more. Similar to sharing images, the Mail client will alert you that you're sending large attachments and will give you the option to send smaller photos.



Copy and share images by simply tapping on the image

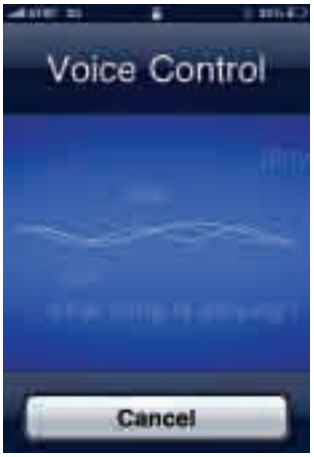
Select the image size you want to send

Unified Inbox and threaded email messages

Most of us have multiple email accounts and it is always a pain to keep checking the inbox of one account and then sign out of that account and sign in to check the inbox of another account. Thankfully, iOS has a unified Inbox for the Mail app. If you're a fan of threaded messages that you normally see in Gmail messages, it is also possible now in iOS 4.0 Mail. To activate this feature, go to `Settings` and then go to either `Mail`, `Contacts`, or `Calendars`. Scroll about half-way down and turn on `Organize By Thread`.

Voice control time

What if you were listening to music with your iPhone in your pocket and wanted to know the time without taking out your iPhone. Just click and hold down on the centre button on your iPhone headset, or simply click and hold down on the home Button on your iPhone and speak into your headset 'What time is it' Your iPhone will tell you the time.



Instruct your phone, via voice!

Character count next to message box

Messaging character count

While text messaging, we always have to keep in mind that we need to restrict our character count to 160 to send out the message as one single message. You can keep track of this by switching on the Character Count feature by navigating to `Settings > Messages`. The moment you cross 30 characters, a counter will pop up.

Photo Places

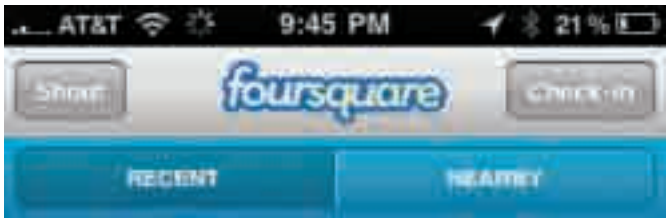
The photos you take with the iOS settings comes with geo-location data and can be added to the Places feature. By using this feature a Google map will pop up with pins pointing toall the locations

Find your way...

where you have taken these pictures with your iPhone.

Location services

There are a lot of location based services available for the iPhone but the problem with many LBS apps is that



Foursquare on the iPhone

the user is not sure which of them is active and throwing out information about your location when you don't want it to. To keep track of this, watch out for a tiny arrow in the upper right corner of the screen that will show up when one of these services is active. If you decide to not allow the service to keep track of your location, you can turn these services off. Just navigate to `Settings > General > Location Services`.

More secure passcode

If the default usage of numbers as a passcode for keeping your iPhone secure isn't enough for you, can always choose to create an alphanumeric password instead. Go to `Settings > Passcode Lock`. You can switch off the simple Passcode and turn Pass-

Keep pests away from your phone

code On to set your new alphanumeric password.

Sometimes when using the normal keyboard you might need to accentuate certain letters in words from languages such as French. To do this, you just need to tap and hold on to the letter on the keyboard till different forms of the character with possible accents and other options appear. Another tip to toggle between on and off for Caps lock is to double tap the shift button each time.

Bluetooth keyboard pairing

One of the major things people now want to do is write email or type out documents faster using its text editor because for better formatting and spell checking capabilities in new iOS devices. An iPad is extremely handy for writers since you can pair it with an external keyboard using Bluetooth for faster keyboard typing. To pair a keyboard with your iOS device, go to `Settings > General > Bluetooth` and make sure Bluetooth is turned on. Go through the normal pairing process.

Change your home screen wallpaper

For appearances sake, you can use any image on your iOS device as the background home screen. Simply fire up Settings and go to the wallpaper option, pick an image you want to use, choose it as your home screen wallpaper.

Adjust transparency of the IE9 toolbar

IE9 beta

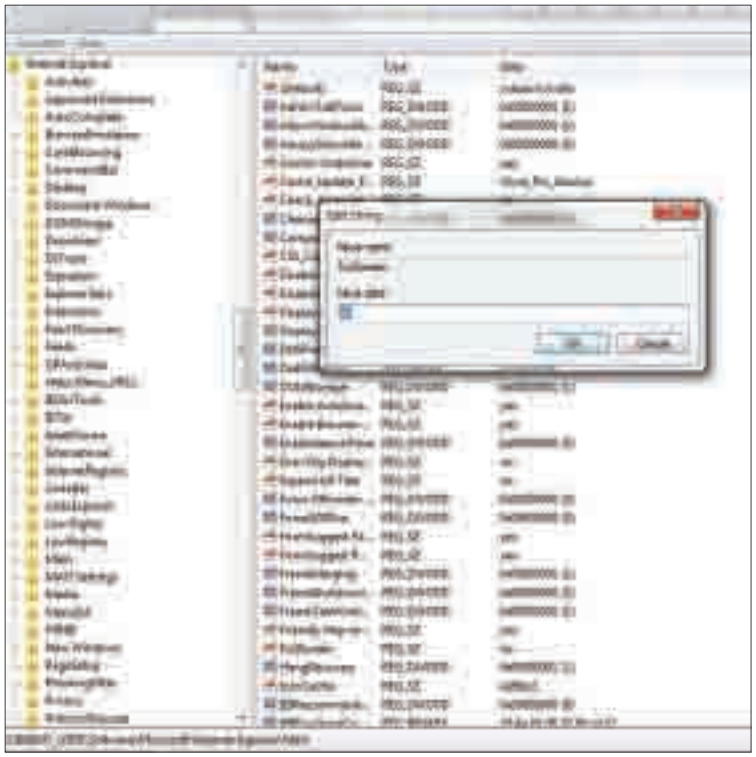
Keep the Menu Bar always visible

In IE9 beta, you have to press `[Alt]` to view the Menu Bar temporarily. But if you use it very often or are accustomed to the old style of it being visible all the time, you can make it always visible. Open Regedit by pressing `[Win] + [R]` and typing `Regedit` in the run command dialog box. Navigate to `HKEY_CURRENT_USER\Software\Policies\Microsoft`. Right-Click on Microsoft, and select New then click Key. Enter the name as `Internet Explorer`. Now right-click Internet Explorer, and select New and click on Key. Type `Main` when prompted for a name. Right-click on `Main`, select New, then click on `DWord (32-Bit) Value`. Type `AlwaysShowMenus` and set its value to 1. Now if you press `[Alt]` while in IE9, the Menu bar will appear permanently.

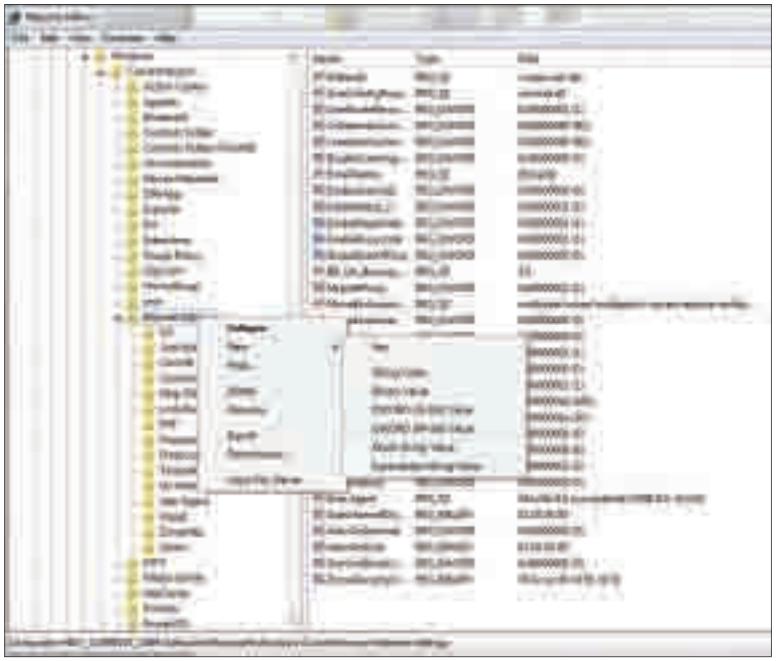
Always load IE9 in Full Screen Mode

If you want to view IE9 in fullscreen mode, press the [F11]. But with a simple registry hack, you can ensure IE9 always loads in fullscreen mode. After doing a regedit, navigate to `HKEY_CURRENT_USER\Software\Microsoft\Internet Explorer\Main`. On the right side, locate the value `Fullscreen`. Change its value to `Yes`.

Next time you open IE9, it will be in fullscreen mode. You can still toggle between normal and fullscreen mode by pressing [F11].



Set the necessary entries in the registry and you'd have a revamped browser



Change settings to alter the behaviour of IE9

Enable simultaneous downloads

Once again, do a `regedit`. Navigate to `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Internet Settings`. Right-click on Internet Settings, select `New` then click on `DWORD (32-bit) Value`. Name it `MaxConnectionsPerServer` and set its value to `4`. Right-click on Internet Settings, select `New` then click on `DWORD (32-bit) Value`. Name it `MaxConnectionsPer1_0 Server` and set its value to `6`.

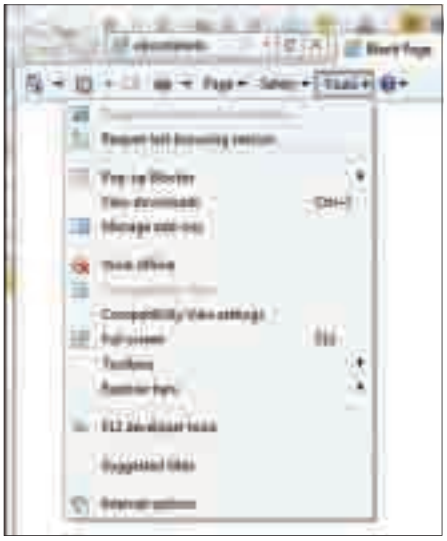
Disable Addons

IE9 beta provides a great browser experience; it starts up quickly and loads pages fast. But with lots of add-ons installed, you will eventually start noticing a lag. But thankfully, Microsoft has provided a great tool to take care of this. You will first need to enable or show command bar on IE 9. For this, right-click anywhere on the top bar and select "show command bar". Now go to `Tools > Toolbars > Disable addons`. Disable the ones that are slowing your browsing experience.

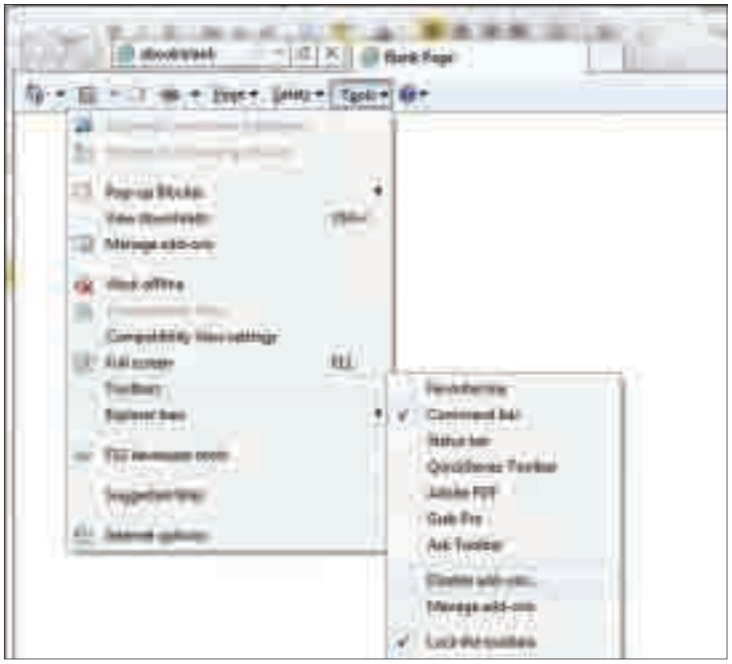
You can lock toolbars too...

Reopen closed tabs

Very often, you accidentally end up closing some or all the browser tabs that you were viewing and may want to restore them again. In IE9, you can quickly reopen the last closed web sites or tabs. Enable viewing of the Command Bar. Click on `Tools > Reopen` last browsing session and you are done. This will automatically resume the web sites or browser tabs that were active during the last browsing session.



You can restore your previous browsing sessions



...or even 'show' or 'hide' the Command bar

Note: If you have cleared your browsing history and deleted all the temporary internet files, you may not be able to restore the last browsing session in Internet Explorer9.

Miscellaneous

To open a new tab, you can just Double-Click on the area to the right of the tabs boxes, without having to click the little blank Tab Box. Right-Click a blank area and click on Move Stop and Refresh to move the Search Bar Stop and Refresh from Right of Search Box to Left side of Search Box. To give more area to your Tabs and make the Search Box smaller, position your cursor between the Search Box and a Tab, when the Cursor switches to the Right/Left arrow, you can click and drag the Search Box to the Right or Left to either enlarge or make it smaller. Press `[Alt]`, click on View on the `Menu Bar > Style > No Style` to View the web page without formatting. Click Default Style to change the Webpage back to default. If you are having problems viewing web pages, press [Alt] on your keyboard and under the Tools menu, select Compatibility View.

Symbian^3

Symbian^3, is the Latest Symbian platform release. The Symbian Platform is the successor of Symbian OS, while the latter required an additional user interface system, Symbian Platform integrated a user interface component based on the S60V5 into the platform itself. It is currently available on flagship devices such as the Nokia N8 and Nokia C7-00. We will now elaborate on a few tips and tricks to enhance your experience. Many of these tips will work on a S60V5 device also.

USB on-the-go

One of the most talked about and loved feature of Symbian^3 is the ability to natively support USB on-the-go, what it means is that it provides powered access to USB peripherals. For example, you can directly connect a pen-drive to your phone (via a cable) and read/transfer data without the need to tether your phone to a computer. Now more interestingly, you can actually connect a USB mouse to your phone: Yes your standard desktop mouse. Once connected, the mouse pointer will be visible on the phone's screen. Left-click of the mouse will be equivalent to a tap. Similarly, a right-click will minimise the application or open the menu. But the best part is that you can scroll through the gallery or list by using the scroll wheel of your mouse at amazing speeds.

One big step towards substituting your netbook with your phone

Scheduled profiles

Did you know your phone can even schedule the changeover of profiles for you. For example, you can set the profile to silent for your bed timings and make it automatically shift to general at your wake up time. To do this, open `Profiles` in the Settings menu. Select the profile you want to schedule and then choose `Timed`. It will then give you the option of entering the preferred time for each profile. Remember that once the time for any profile expires, it will switch back to the last active profile.

Power saving

Symbian^3 added a Power Saving Profile for some devices. When switched to, the phone will Dim the display, disable Bluetooth, disable screensavers and switch to GSM-only from 3G. It is a great way to extend your battery life when you are running close to 15-20 per cent and want to survive for a few extra hours. Like others, you can access it merely by pressing the power button and then selecting it from available profiles.

Video

The video taking application provided by Symbian^3 supports "Video Stabilisation". A simple and effective way of reducing motion jerks. To use it, open the camera application and switch to video mode. Go to `Options > Settings` and turn the "Video Stabilization" to ON. It is often complained that the Audio quality of the built-in voice recorder is not satisfactory. So if you are someone who use the Audio recording application often for taking notes, interview or in general then you should go to `Options > Settings` after opening the recorder app and find the field `Recording Quality` and change that to `High`.

Right-clicks

A lot of touchscreen interface users might not be aware that pressing and holding any menu listing would simulate a right click, and would typically present you with context options. For example if you are in the Call Log, and you press and hold any number or contact, it will give you an option to send an SMS straight away. Similarly under contacts, you can press and hold any contact from the list to get an option to send it as a 'Business Card' via SMS.

Quick Bluetooth switching

Symbian has often been criticised for not having a dedicated shortcut or easy access menu listing for Bluetooth power on and off, especially before the introduction of widgetised home screen. But did you know you can toggle Bluetooth power by simply pressing and holding the * key.

Safeguarding your data, remotely

Finding your MAC address

Every network interface of each device has its own unique MAC address. If your Wi-Fi network, at home or office, needs authentication via MAC, here is a simple way to find your phone's wireless MAC address. Simply type `*#62209526#`. If you entered the code correctly, you wouldn't need to press the dial button to get the notification message with your WLAN MAC address.

Multiple home screens

Symbian^3, like Android and other interfaces supports multiple homescreens. Upto three on most devices. If you think that is a little too much information overload then you can reduce them very simply by clicking options after switching to the home screen you want to delete and then choosing 'delete' from the context menu. If you later decide to change your mind and want to add a homescreen then go the homescreen after [on the right side] which you want the new homescreen. Click Options and then choose "New Home Screen". Symbian^3 provides added security to your portable device by giving an option to lock it remotely in case of theft or similar unwanted circumstances. You will of course need to enable this before you loose the possession of your phone. This can be accomplished by Going to `Settings > Phone > Phone Management` then you will have to navigate to `Security Settings > Phone and SIM Card`. Under this there will be a field named `Remote phone locking`. Enable it. Enter a remote locking message or a password. Tapping on the time display will quickly take you the "New Alarm" screen. Right next to it you can try tapping in the blank area next to the clock and it will give you a profile selection menu and open calendar option. While clicking near the battery, it will give you the option to access the connectivity and clock settings. Very discreet and a huge time saver.

Illuminate your keyboard

It's hard to work on your keyboard in poor light conditions so we decided to reduce the strain you face while working late at night or under dim lights.

Kanchan Hira
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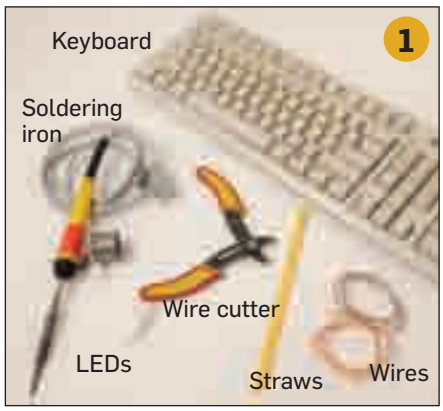
Photo: Jiten Gandhi



Collect all the components before you begin.

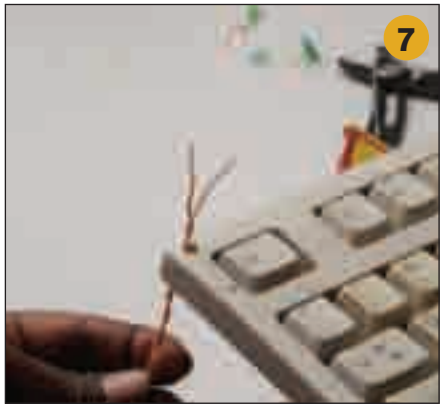
Unscrew the keyboard.

This is the inside part of the keyboard. You can see the PCB of the keyboard on the top right corner above.

Right most is the Scroll lock key LED. Unscrew the PCB and then de-solder the Scroll Lock key LED.

Remove the Scroll lock key LED from the PCB and connect two sets of wires at the points where the LED was connected.

Drill holes at the two top corners on the keyboard.



Screw back the PCB and then take out the wires from the PCB through the two holes you made on the keyboard.

Taking care of the polarity, solder the LEDs to both the sets of wires coming out from the hole then screw back the keyboard.

Connect the keyboard to the PC and then press the scroll lock key. You are now ready to face the dark with the power of your illuminated keyboard.

Motorola Xoom
If rumours are to be believed Xoom will hit the markets on February 17 for $699

Duke Nukem
Finally ending the long wait Duke Nukem will release on May 3

Boot Windows from a virtual drive

Learn how to install and then boot Windows 7 Ultimate from a virtual hard drive located anywhere.

Kshitij Sobti
kshitij.sobti@thinkdigit.com

One of the lesser known facts about Windows 7 is its ability to natively use VHD (Virtual Hard Disk) files and its boot loader can even boot from them. If you have ever used software to mount ISO files as virtual CDs, you will be familiar with the concept of disc images. Unlike .iso files, that store images of a CD / DVD / BluRay discs, VHD files are a way of storing an entire hard drive's structure (partition and data information) inside a file, so they can be used in a virtual machine.

Those who have used Microsoft Virtual PC will be familiar with VHD files, since it is Microsoft's format of choice for use as virtual hard disks. If you have Windows 7 you can mount VHD files directly, in which case the hard drive will appear with all its partitions just like any external hard drive. What is more exciting and important is that you can have the Window boot loader boot from an operating system installed in a VHD file. Of course the operating system will need to support this as well; which brings us to an even more exciting fact: Windows 7 Ultimate supports booting from inside a VHD!

Boot from the Windows Ultimate setup disc

Proceed beyond Next

What this means is that you can install Windows 7 on a VHD file and boot from it directly, just as Ubuntu Linux does to run from the same partition as you Windows install. You can then have an entire OS contained in a file that you can easily copy, move, backup etc. You can even use a differencing disk, i.e. a disk in which your core OS is stored on one file, and any further changes are stored in another file. You might compare this to running Windows in a virtual machine, however this has significant advantages over that as we will explain at the end of the article.

There are two ways you can do this. The first method is to install Windows 7 onto a VHD file instead of a normal hard disk, and in the second method you can create a VHD file with Windows 7 pre - installed directly from the setup disk without running the setup itself.

For both these steps, we assume that you already have Windows installed on your computer, and are using this method for an additional install.

Option 1: Install Windows to a VHD file

For this you should boot from the Windows 7 Ultimate setup disc, however instead of starting the setup, start the repair instead.

Click next on "System Recovery Options".

In the list of recovery tools, click on Command Prompt.

In the command prompt type "diskpart" and hit return to launch the disk partitioning tool. You will need to run the following commands to create a virtual drive in which to install Windows 7:

```
create vdisk file=C:\windows7.vhd maximum=20000
```

This command will create a new virtual drive at the location specified after "file=" with a maximum size in MB specified after "maximum="

Select Command Prompt

```
select vdisk file=C:\windows7.vhd
```

This command will select the virtual disk file so you can modify it.

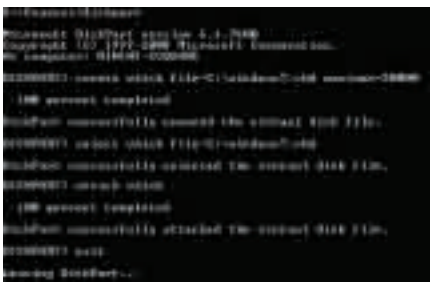
```
attach vdisk
```

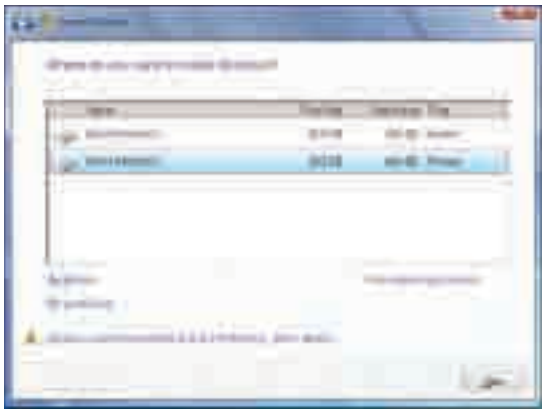
This will attach the VHD file to it shows up as a normal disk drive.

```
exit
```

This will exit the diskpart program.

Now you can manually start the


Attach command is used to attach the VHD file



Enter the location for the setup of Windows

Windows 7 setup by typing setup at the command prompt. You will notice, at the hard drive selection step, that the newly created VHD will now be available as an option. Select that drive and then run the Windows setup as normal!

Your computer will not be able to boot to this Windows version just yet, but we will come to that later.

Option 2: Use a script to generate a Windows 7 VHD from the setup disk

For this you will need the following:

1. Windows 7 setup disk (Ultimate)
2. Windows 7 Automated Installation Kit (AIK) 2.0
3. The Win2VHD Script

(2) and (3) are available on the DVD.

The procedure for generating the VHD from the Windows 7 DVD is simple:

1. First of all install the Windows 7 Automated Installation Kit (AIK) 2.0 after either mounting the iso file or burning it.
2. Now copy the Win2VHD script (win2vhd.wsf) file from the Digit DVD to a convenient location..
3. Insert the Windows 7 setup disk into your disk drive.
4. Using the command line, enter the folder in which you copied the script and the imagex.exe file, and run the following command line:

```
cscript wim2vhd.
wsf /wim:X:\sources\
install.wim /
sku:ultimate
```

Here X: is the drive letter for your Windows 7 disc.

This step will take quite some time, depending on your hard-drive and CD drive speed and the speed of you computer, 15 minutes is not out of the ordinary. Once it is done, you will find a new .vhd file created in the same folder where you ran the script – it should be around 6GB. This is a fresh bootable Windows installation inside a vhd file!

The wim2vhd script only makes it simpler to create a VHD file from the "install.wim" file by automating the creation and partitioning of a VHD using diskpart, and subsequently using imagex from the AIK to to copy contents from the install.wim file to the vhd file. You can do this yourself, but the script makes it much simpler. In case wim2vhd can't locate imagex.exe, copy it to the same directory as the script (it can be found at `C:\Program Files\Windows AIK\Tools` or similar).

You can even specify the path to the vhd file in the command line if you so desire. You can learn a bit more about the options you have by running "cscript wim2vhd.wsf" without any arguments.

Booting from the VHD

This part is considerably simpler. All you need to do is install EasyBCD 2.0 and it will expose an option to boot from a VHD file. EasyBCD is available on the Digit DVD.

The "Add New Entry" tool has a tab called "Virtual Disk" in the lower half that can be used for this purpose. Once you have selected your vhd file, given it a name, and added the entry, you will be able to boot to it using the command line.

Boot directly into a virtual hard disk

Advantages of using a VHD

Some of these advantages are over using a virtualised OS, and others are over a normal native install, since this lies somewhere in between:

- Your entire OS is inside a single file
  With your OS in a single file it is easy to copy in case you get a new hard drive or want a copy of the same OS.
- You can use a differencing disk to keep your base system clean while keeping changes separate
  With differencing disks, you can install Windows to your base HDD and capture any changes over that (software / driver installs etc.) in a different drive. This way you can have multiple configs, while saving a little space with just a single base install.
- You can make snapshots of your disk with greater ease and revert in case of viruses
  Differencing can help even more here. You can create one base VHD image with a Windows 7 install, another hard drive based on this one in which you install all you apps. And a third further hard drive based on the second that has beta applications etc installed. You can use multiple differencing disks and be able to boot into multiple different software configurations using the same base OS.
- Only the hard drive is virtualised, so you get better performance
  Microsoft claims that there will only be about a 3% loss in performance due to this mode of installation. Apps that are not hard disk heavy can have less of a drop in performance.
- You have direct access to native hardware. You can use it for gaming, since you have direct access to the graphics card. Virtual machines cannot handle 3D graphical application that well yet.

Convinced yet?

Sandy Bridge Board Shootout

We tested 13 Sandy Bridge motherboards to help you choose the best before you upgrade your system

Biostar TH67XE

Nimish Sawant
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Intel launched its new line of processors – the Sandy Bridge processors – last month. These are the second generation of Core i series of processors that require a completely new motherboard having the LGA 1155 socket, a successor to the old LGA 1156 socket. Also, these new motherboards are based on the new 6-series core-logic chipset. Motherboard manufacturers had already started shipping the Sandy Bridge motherboards, and we thought there wouldn't be a better time to do a motherboard shootout test. We got close to thirteen motherboards from brands such as MSI, ASUS, Gigabyte, Intel, ECS and Biostar. So before we begin the shootout, a quick primer on the features you can expect in this new line of motherboards.

The Two chipsets

As with the previous generation chipsets, the 6-series chipset also comes in two flavours - the higher end P67 chipset and the comparitively economical H67 chipset. The table below encompasses the basic differences between the two chipsets. The major upset, for some, is no scope for using Intel's HD 2000 / 3000 integrated graphics and Quick Sync Video technology on the P67 boards. Another major difference being the fact that P67 board can support upto 3-way SLI or CrossFire setup, whereas H67 board allows use of only one PCIe x16 slot. So the lines are clearly drawn - P67 is for gamers and overclockers whereas H67 boards are ideal for those into audio/video/sound transcoding, editing and for consuming HD media. There is native support for SATA 6 Gbps in the new chipsets, but USB 3.0 is still being supported by third party micro controllers which we found rather strange.

Features	Intel P67	Intel H67
CPU Overclocking via Multiplier	Yes	No
Integrated Graphics Processor output	No	Yes
IGP Overclocking	No	Yes
RAID Support	Yes	Yes
DRAM Speed Option	Upto 2133MHz	Upto 1333MHz

The P67 boards

We got around eight P67 boards from brands like Intel, Gigabyte, MSI, ASUS and ECS. All of them came in the ATX form factor with dark brown colour being common for all the boards. The Gigabyte P67A UD3R comes in a matte dark brown colour which is radically different from the blue Gigabyte motherboards that we are so used to seeing. The heatsinks around the chipset and MOSFETs around the socket region are sturdy gray coloured metal pieces, with a hint of blue, which looks out of place amidst the dark tones.

SATA ports pointing upwards instead of sideways is a big sore on the otherwise clean P67A-UD3R. It supports Dual BIOS, which has a backup BIOS.

The higher end Gigabyte P67A UD7 is an enthusiast Sandy Bridge board. Visually, it appears much sturdier than the P67A-UD3R. The heat sinks around the MOSFETs and P67 chipset are bigger than the ones found on P67A UD3R, and they have a golden colour at the edges. There are four PCI Express x16 slots but their arrangement is such that the graphic card on the first slot, completely covers the second slot. The rear I/O ports section is quite exhaustive on this board.

The MSI P67 boards as well as ASUS P8P67 PRO come with the UEFI BIOS, the graphical UI based BIOS. It allows you to use your mouse and keyboard in the BIOS setup menu. While MSI UEFI comes with icons for each operation like Booting, Overclocking, Utilities, etc, the ASUS UEFI BIOS gives a current status of the board, its temperature and voltage alongwith options to run the processor in Green, Normal mode etc. To go in the advanced mode you will have to click on the top right hand corner tab. Changing options using a mouse is quick and the colour element makes the BIOS screen look quite attractive. Graphical representation of CPU status is great.

ASUS P8P67 PRO is a good board with decent on board features. The angular heatsink looks good and this board has three PCIe x16 slots for hardcore gamers. Absence of dedicated power and reset buttons is not expected from ASUS.

MSI sent three boards namely the P67A-GD65, P67A-GD55 and P67A-C45.

Gigabyte P67A-UD7

QuickSync with discrete GPU

Lucid is able to copy the frame buffer output from discrete GPUs to main memory and send it out via the DVI port on an H67 board

Brand	ASUS	ASUS	Biostar	ECS	Gigabyte
Model No.	**P8H67-M**	**P8H67-M EVO**	**TH67XE**	**H67H2-M**	**H67A-UD3H**
Price (₹)	**7,100**	**8,500**	**6,950**	**7,400**	**9,450**
Overall (Out of 100)	**68.69**	**82.01**	**80.82**	**81.22**	**82.65**
Performance (Out of 60)	**48.77**	**52.29**	**51.9**	**51.9**	**53.09**
Features (Out of 40)	**19.92**	**29.72**	**28.92**	**29.32**	**29.56**
Specifications					
Max. Memory Supported (GB) / No of DIMMs	16 / 4	16 / 4	16 / 4	16 / 4	16 / 4
No. of SATA ports / IDE Ports	6 / 1	6 / 1	5 / 0	5 / 0	5 / 0
No. of PCI / PCI x1 / PCI x16 Slots	1 / 1 / 2	1 / 1 / 2	1 / 1 / 2	1 / 2 / 1	3 / 2 / 2
Integrated Audio Controller	Realtek ALC887	Realtek ALC892	Realtek ALC892	Realtek ALC892	Realtek ALC892
SPDIF Port / Optical Port	Y	Y	Y	Y	Y
USB 2 / USB 3 ports	6 / 0	4 / 2	4 / 2	4 / 2	4 / 2
FireWire / eSATA ports	0 / 0	1 / 1	1 / 1	0 / 1	1 / 1
Display Ports DVI / VGA / HDMI / Display Port	0 / 1 / 1 / 0	1 / 1 / 1 / 1	1 / 1 / 1 / 1	1 / 1 / 2	1 / 1 / 1 / 1
Board Layout (So 10)	5	5	5.5	6	6
No of SATA / PATA Cables Provided	2 / 1	4 / 1	3 / 0	4/0	4 / 0
Other Miscellaneous Accessories	Driver CD, Rear I/O Panel	Driver CD, Rear I/O Panel, Q-connector kit, 2-port USB and 1-port eSATA module	Rear I/O Panel Frame, Driver CD, SATA Power cable	SATA to eSATA connector, Rear I/O panel frame, port lockers	Rear I/O Panel Frame, Driver CD,
Performance					
PC Mark Vantage (Overall)	10975	10661	10487	11129	10525
ScienceMark (Memory Bandwidth)	17913.03	17571.58	17271.2	14633	17941.32
CINEBENCH R10 CPU (All cores)	19585	18864	18414	19004	19275
WinRAR 3.9 (Multi threaded) KB/s	3579	3529	3486	3392	3522
100 MB file Video Encoding (VOB-DivX 7) (sec)	19.53	19.77	20	19.8	19.6
File Transfer (4GB file) (MB/s)					
Sequential	59.36	59.36	59.36	59.36	59.36
Assorted	43.22	42.66	42.66	43.11	43.11
USB 3.0 (4GB file) (MB/s)					
Sequential Write / Read	NA / NA	58.53 / 75.24	59.23 / 78.76	61.23 / 79.24	60.23 / 83.51
Assorted Write / Read	NA / NA	24.23 / 60.54	22.26 / 63.01	24.21 / 65.96	22.23 / 68.26
Game (frame rates FPS)					
Crysis warhead (1680x1050, med)	72	72	71	71	72
Resident Evil 5 (1680x1050, med)	113.4	112.5	113.4	111.3	113.7
COH : TOV (1680x1050, ultra)	158.3	156.4	155.7	157.1	164.5
Game using Intel IGP (frame rates FPS)					
Crysis Warhead (1024x768, med)	20	20	22	21	23
COH : TOV (1024x768, ultra)	21	24	25.7	27.7	30
Resident Evil 5 (1024x768)	33.4	31	32.1	32.7	24

Brand	Gigabyte	Gigabyte	MSI	MSI	MSI	ECS	ASUS	Intel
Model No.	**P67A-UD3R**	**P67A-UD7**	**P67A-GD55**	**P67A-GD65**	**P67A-C45**	**P67H2-A**	**P8P67 PRO**	**DP67BG**
Price (₹)	**11,025**	**17,850**	**9,500**	**10,500**	**8,300**	**15,700**	**11,500**	**8,500**
Overall (Out of 100)	**71.18**	**80.57**	**74.39**	**76.98**	**64.97**	**78.61**	**74.82**	**76.29**
Performance (Out of 60)	**51.14**	**52.01**	**51.35**	**51.46**	**51.65**	**51.53**	**51.54**	**51.93**
Features (Out of 40)	**20.04**	**28.56**	**23.04**	**25.52**	**13.32**	**27.08**	**23.28**	**24.36**
Specifications								
Max. Memory Supported (GB) / No of DIMMs	16 / 4	16 / 4	16 / 4	16 / 4	16 / 4	16 / 4	16 / 4	16 / 4
No. of SATA ports / IDE Ports	6 / 0	8 / 0	6 / 0	8 / 0	6 / 0	6 / 0	6 / 0	6 / 0
No. of PCI Express x16 graphics slots	2	4	2	2	1	3	3	2
No. of PCI / PCI x1 / PCI x4 Slots	2 / 3 / 0	2 / 1 / 0	2 / 3 / 0	2 / 3 / 0	3 / 3 / 0	2 / 1 / 0	2 / 1 / 0	2 / 2 / 0
Multi GPU (SLI/CrossFire) Support	Y	Y	Y	Y	N	Y	Y	Y
Integrated Audio Controller	Realtek ALC892	Realtek ALC892	Realtek ALC892	Realtek ALC892	Realtek ALC892	Realtek ALC892	Realtek ALC892	Intel HD Audio
SPDIF Port / Optical Port	Y	Y	Y	Y	Y	Y	Y	Y
USB 2 / USB 3 ports	8 / 2	8 / 6	8 / 2	8 / 2	8 / 2	6 / 4	6 / 2	8 / 2
FireWire / eSATA ports	0 / 0	1 / 2	1 / 0	1 / 2	1 / 0	0 / 2	1 / 2	1 / 1
Board Layout (So 10)	6	6.5	6	6	5.5	7	7	6.5
Other Miscellaneous Accessories	Rear Panel I/O shield, Driver CD,	3-Way SLI bridge, 2-Way SLI Bridge, Driver CD, SATA Bracket, Rear panel I/O shield	Power cable, Driver CD, Rear I/O panel, 2-way SLI bridge	Power cable, Driver CD, Rear I/O panel, USB 3.0 bracket, 2-way SLI bridge	Driver CD, Rear I/O panel, USB 3.0 bracket,	Driver CD, Rear I/O panel, USB 3.0 bracket, USB port lockers	Driver CD, USB 3.0 Bracket, 2-way SLI bridge, Q-connector kit	NA
Performance								
PC Mark Vantage (Overall)	11437	11038	11083	11270	11070	11397	10466	10986
ScienceMark (Memory Bandwidth)	18993.1	18194.05	17665.27	15456.21	17624	17021	17730	17569
CINEBENCH R10 CPU (All cores)	19009	19471	19032	18870	18850	19043	19017	18624
WinRAR 3.9 (Multi threaded)	3490	3537	3522	3393	3554	3522	3542	3535
100 MB file Video Encoding (VOB-DivX 7) (sec)	19.5	19.7	19.8	20	19.4	19.6	19.3	19.53
Sequential / Assorted FileTransfer (4GB File) (MB/s)	49.95 / 41.51	59.36 / 43.57	58.15 / 43.11	58.23 / 43.44	58.14 / 43.11	59.36 / 43.11	60.23 / 46.02	54.61 / 43.51
USB 3.0 (4GB File) (MB/s)								
Sequential Write / Read	63.01 / 87.14	67.14 / 80.33	65.01 / 80.45	66.06 / 80.31	64 / 80.31	62.06 / 78.76	67.1 / 81.92	66 / 79.85
Assorted Write / Read	23.41 / 54.51	25.12 / 68.26	25.91 / 66.76	29.04 / 65.96	23.04 / 68.26	22.5 / 64	25.34 / 64	27.3 / 53.53
Game								
Crysis warhead (1680x1050, med)	72	71	70	71	72	70	72	72
Resident Evil 5 (1680x1050, med)	113.1	112	113.3	112.4	113.4	109.7	114.8	163.3
COH : TOV (1680x1050, ultra)	162.7	160.7	157.5	158.5	157.8	154.5	158.3	160.1

Brand	Contact	Phone	Email	Website
ASUS	ASUS Technology Pvt. Ltd.	1-800-209 0365	reachus@asus.com	www.asus.in
Biostar	Abacus Peripherals Pvt. Ltd.	1-800-221 988	enquiry@abacusperipherals.com	www.abacusperipherals.com
ECS	Rashi Peripherals	+91-22-4047 0828	response@rptechindia.com	www.rptechindia.com
Gigabyte	GIGABYTE Technology	+91-22-4063 3222	sales@gigabyte.in	www.giga-byte.co.in
Intel	Intel	+91-80-2854 2105	sasupport@mailbox.intel.com	www.intel.com
MSI	Micro Star International (MSI)	+91-11-4175 8808	marketingindia@msi.com	www.in.msi.com

While the GD65 and GD55 are higher end boards which look quite similar except for the extra two SATA ports on GD65, the C45 is a low end P67 board with only one PCIe x16 slot. GD65 and GD55 boards have dedicated power, reset and OC Genie buttons which are absent on the C45.

The ECS Black Series P67H2-A is one of the most attractive looking boards from amongst all that we tested. The colour combination is quite pleasing and it has sturdy heat sinks. The piece de resistance, as far as this board is concerned, is the presence of a Lucid Hydra Logix core, which will allow you to connect two cards from different manufacturers and run them together. Which means you can combine the NVIDIA GTX580 with an AMD HD6970!

The Intel DP67BG reference board was well designed. It has a skull towards the bottom edge whose eyes glow when the system is switched on. There is a nice representation of status of all the attached components in the form of green LED indicators on the Intel board.

The H67 boards

We received five H67 board from ASUS, ECS, Biostar and Gigabyte. All the boards except Gigabyte H67A-UD3H came in the microATX form factor. Although some boards came with two PCIe x16 slots, the limitation of the H67 chipset prevents them from running a dual - GPU SLI or Crossfire setup. All boards except ECS H67H2-M had their SATA ports pointing upward, which can sometimes get in the way of the graphic card if it is long. Heatsinks on H67H2-M were the best among the lot. Gigabyte H67A-UD3H had strong heatsinks, but they were flexible, something we did not like. Both the ASUS boards sported IDE slots, which are too old now and seemed like a waste of space. ECS board impressed us with dedicated power and reset buttons as well as two digit POST code LED on board. H67 being a board that allows you to utilise the internal graphics of the Sandy Bridge processor, do come with as many as four display ports namely HDMI, DisplayPort, DVI and VGA. All boards except ASUS P8H67-M came with all the four diplay ports.

ECS Black Series P67H2-A

Performance and verdict

ECS H67H2-M scored 11000 plus in overall PC Mark Vantage score followed by ASUS P8H67-M. Cinebench rendering was impressive in P8H67-M as well as Gigabyte H67A-UD3H. Absence of USB 3.0 ports on the P8H67-M board was quite strange, as all the other boards had them. Real life tests including data transfer and gaming were very close as well.

As far as H67 boards were concerned, we found the Gigabyte H67A-UD3H and ASUS P8H67-M-EVO to be good in terms of performance and features, but the economical pricing of Biostar TH67XE under ₹7,000 ensured that it won the **Best Buy**. ASUS P8H67-M was dissapointing in terms of both features and performance. Despite ASUS having the UEFI BIOS, it still scored lower in features when compared to the rest of the boards.

For P67 boards, Gigabyte P67A-UD7 scored the most in Cinebench Rendering with 19471, which was about 400 points over its nearest competitor - ECS P67H2-A. WinRAR compression / decompression was fastest in MSI P67A-C45 board followed by ASUS P8P67 PRO. The difference was miniscule among all the boards. Gaming scores were almost similar with most of the boards giving great playable rates.

Gigabyte P67A-UD7 won the **Best Performer** as its performance score edged past all other competing boards' scores. ECS P67H2-A was awarded the **Editor's Pick** as its overall score was very close to the Best Performer and for being the only motherboard to support Lucid Hydra Logix core.

We felt that MSI P67A-C45 was not really upto the mark. Maybe MSI is targetting the budget segment, but Intel's DP67BG was quite superior to it in both features and performance. It was the **Best Buy.** We would have liked to see the UEFI BIOS on more boards though.

HOW WE TESTED

The new motherboards have the LGA 1155 sockets and it is not backward compatible. We used the fastest Sandy Bridge processor - the Intel Core i7-2600K running at 3.4GHz for all the boards. Corsair's XMS3 (1600MHz) 4GB DDR3 RAM was used along with a Sparkle GTX 465 graphics card. The memory was clocked at 1333MHz running at 9-9-9-24. During the test, Windows 7 Ultimate edition ran off a Western Digital Velociraptor 300GB hard drive. All the components were powered by Corsair HX620W power supply unit.

We divided the motherboards based on the P67 / H67 chipset. We ran PCMark Vantage to test the performance across various usage scenarios. That was followed by the ScienceMark Memory Bandwidth test. CineBench R10, an independent tool based on the popular 'Cinema 4D' 3D modelling program was used to test just the processor and memory. Another way to test the processor was by using WinRAR 3.9 built-in benchmark tool. Coming to the real world tests, we tested the time taken to encode a .VOB video file into the DivX format using DivX Converter 7.0. That was followed by a single large file and assorted 4GB file transfer test to simulate sequential and assorted from one partition to the other. As most motherboards come with a USB 3.0 port, we also ran data transfer tests on USB 3.0 ports. In order to see how these boards performed in the graphics department, we tried running Crysis Warhead benchmark, Resident Evil 5 benchmark and Company of Heroes : Tales of Valour benchmarks. For H67 boards, we tested the integrated graphics prowess by running the same games at lower resolutions off the display ports on these boards after removing the discrete graphics card.

Kindle Development Kit
Amazon has recently launched the Kindle Development Kit to support apps for the Kindle

Colour eink?
Hanvon introduced a colour eink ebook reader at CES this year

Going beyond paper

For years, people have been reading on PC screens, on phones and, recently, on tablets. However, the best way to read books has always been paper... Does that still hold true?

Nash David
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Ebook readers have actually been around for a long time. In fact, we can date the origin of ebook readers to SoftBook – a 1.3-kilo, touch-sensitive LCD device that was available in 1998. It boasted of a telephone jack and a 33.6 Kbps internal modem that Americans could use to download newspapers such as the New York Times. Users could get an issue of the daily newspaper – but they had to leave it downloading overnight! Priced at around $600, the SoftBook was not something regular people could afford, and it wasn't targeted at us common folk anyway.

Although times have changed, our underlying instincts haven't. We continue to innovate and work towards better, slimmer, sleeker products. We're a form-factor conscious generation. Having drooled over this category for long ourselves, we decided to give it a try.

We invited all the significant brands manufacturing ebook readers to participate in a comparison. Having procured the Kindle ourselves, we were left with the other Indian models. Some hesitated and eventually backed out.

We tested a total of five ebook readers – the Touch, Touch Pro and Mega Touch from newcomers Leaf, Pi from Infibeam, and of course, Amazon's Kindle.

If you followed our Web awards a couple of months ago, Infibeam would strike a chord. It's an Indian shopping portal founded by ex-Amazon employees, offering its own brand of ebook readers and tablets – their Phi tablet was tested by Digit in our January 2011 issue. At the time of going to print, we learned that Infibeam has already announced its latest ebook reader – Pi2 – a touch-enabled device. However, since our test process requires us to spend at least a month with the ebook reader, you'll have to wait for our review of the Pi2 and other new ebook reader launches.

Leaf is the latest entrant in the Indian ebook market. We received three models – Touch, TouchPro and MegaTouch – all three of them touch-enabled. We learned from Leaf that they would be developing all their ebook readers as touch-enabled to cater to a niche audience.

Infibeam Pi: featherweight

Infibeam **Pi**

At just 180 grams, the Pi is certainly light in your palms, and we loved it for this. You can use it for hours without any signs of strain in your wrists. We used the Pi while relaxing indoors, standing outdoors and even in public transport. The Pi implements the Vizplex display from E Ink Corporation.

Instead of the standard (and popular) 3.5-mm jack for listening to music, the designers opted for a 3-mm jack. We just couldn't find a decent set of headphones to test it with – very annoying. You can neither use your normal audio headphones nor any other 2.5-mm pair. You're limited to using Infibeam's pair of earphones included in the package.

Besides, there is no distinction between the various buttons. All you find are four buttons by the left side of the slim body and a large four-way navigation button on the front. There is significant lag in the response of the Pi – something they will hopefully rectify in the Pi2. Infibeam hasn't specified any details on the clock speed of the processor it runs on, but by what we understand, it runs on Samsung's S3C2440 CPU running at a clock speed of 400 MHz. The newer Infibeam Pi2, on the other hand, implements a Freescale Arm 11 Core iMX35 CPU clocked at 533 MHz. This should hopefully translate to increased performance, and smoother page refreshes.

Other than PRC and LIT, the Infibeam supported all the other formats in the list we tested. This is something that impressed us. In contrast, what let us down was the limited internal storage space available –a miserly 512 MB. You have no other option, but to spend extra on a memory card for extra space.

In the absence of either touch or a QWERTY keyboard, jotting down quick notes or performing a search or navigating through pages can be quite painful for your right thumb!

Given the options available in the market, the price tag of ₹9,999 seems a little high and was disappointing. What goes against the Pi most, however, is its rather flimsy build quality, but then it's also the lightest reader in the test.

Leaf **Touch**

The Touch model is a basic ebook reader with touch capabilities. It has a display resolution of 600x800 pixels and displays up to 8 levels of gray. It runs an Ingenic Arm 9 processor. The 400 MHz clock speed translates into lags and glitches,

especially if you get carried away with your newly found wonder. You'd have to hold yourself from clicking too fast. Quoting Ralph Waldo Emerson, the famous American Poet and Author, "*For everything you have missed, you have gained something else, and for everything you gain, you lose something else.*" Touch capabilities are definitely possible, as Leaf has proved, but at the cost of rich user experience.

Leaf Touch: electronic

We'd rather have our devices evolving to suit our needs – it could've even been a tablet (or getting specific even the iPad) for that matter. But the one distinguishing factor when you pick up an ebook reader, and eink specifically, is its readability in sunlight.

All standard dedicated ebook readers are available only in monochrome due to limitations in currently available technologies. The devices that claim to be colour ebook readers, don't give you a strain-free experience due to back-lit displays. The most significant flaw any ebook reader could have is a resemblance to a standard monochrome LCD display – precisely what we felt from the Leaf Touch. From the host of readers we received, the basic Touch model made us feel we're reading from a device, which we believe defeats the purpose of having a reader. The readability experience reminds you of the rather nostalgic monochrome LCD displays.

Touch Pro: For the pro

The specifications claim support for audio, but when we tried to play some standard MP3 samples, it simply wouldn't budge. Owing to its resistive screen, it claims to support finger-touch, but you'd rather prefer the stylus with some decent taps instead.

Other than that, Leaf has a really portable product with a minimalist interface and sturdy build (giving it a rubberised body). There are just four buttons in addition to the essential power switch on the front itself. A big turn off was the time you need to wait to transfer a book collection. Our sample of 177 books totalling to 100 MB took a ridiculous 15 minutes to transfer. Compare that to an average of 2.5 minutes across other ebook readers and it's no match.

Leaf **Touch Pro**

This seemed to be the fastest among the ebook readers we received from Leaf. Also, compared to the Infibeam Pi, it felt much better. There are several functions visible in the menu, but quite a few work badly. For example, there is an option for handwriting to jot notes. It couldn't recognise a single letter or number! Even the QWERTY option had significant lag that made it an inconvenient option. Rather the scribbling function seems more easy and convenient to use. When taking notes however, the erase tool erases strokes at once, instead of pixels and so if you would write a word in a single stroke, then a swipe with the eraser would delete the whole word. The dictionary doesn't serve a purpose, and hints at something amiss.

The power switch at the bottom of the body is rather inconvenient again. Especially while lying down or relaxing, you can inadvertently trigger it to go into standby mode. We liked the build quality of the reader, and it has a sturdy feel to it. This is enhanced by the aluminium base. It weighs 250 grams and has a dial with four buttons to navigate through your books. Navigating pages gets strenuous on the thumb over prolonged use. Since the buttons are on the base, changing positions doesn't make a significant difference.

As is evident, it is easy to get distracted by functions other than its core function – reading books. Once again, all it has is 512 MB of memory. The best feature set is the sheer number of formats supported – an impressive list.

HOW WE TESTED

Build and ergonomics

To test ergonomics and weight, we compared it to a standard paperback and hardcover book. The factors on which we rated the ebook reader was weight, dimensions, grip, placement of buttons, etc. Also, the comfort factor was considered during prolonged use – a few hours a day each, for almost a month. This was to ensure that although some devices seem well designed to begin with, it's only after you actually read on them for a few days that you realise how good or bad it is to hold.

Readability

To test readability, we viewed each ebook reader at various angles with changing scenarios of light source in 4 different directions. The tilt at which readability was hampered was factored in arriving at our decision regarding screen capability. Additionally, we transferred a PDF consisting of text of various font sizes, both in monochrome and colour, with a test image indicating multiple levels of gray in steps as well as a uniform gradient. The displayed results were compared to a standard print on an A4-sized paper printed using an HP inkjet colour printer.

Paper vs. E-Ink: Fight!

File transfer and speed

The whole advantage of ebook readers is that you can carry hundreds of books around with you. Thus, the time taken to add those books to the device is important. We measured the fastest possible data transfer speeds between a test PC and the device. Our sample comprises 177 assorted books and novels from various authors and poets that totalled to exactly 100 MB of data. We also tested the speed of the device itself when handling ebooks. After all, the time taken to open a book, flip a page and search for something is important to the feel of the device.

Other tests

We gave added points to a device's ability to look up the meaning of words, take notes, etc. In any area where there was subjectivity involved – such as the UI design, ease of use, search implementation, etc. We've also tried to minimise any bias by getting four members of Team Digit to independently rate any subjective features on a scale of 10, and then averaged out the score.

FEBRUARY 2011 FEBRUARY 2011

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FEBRUARY 2011

Brand	Amazon	Leaf	Leaf	Leaf	Infibeam
Model	**Kindle 3G+Wi-Fi**	**Touch**	**Mega**	**Touch Pro**	**Pi**
Price (MOP)	**12500**	**10990**	**25990**	**17990**	**9999**
Score (Overall)	**78.68**	**47.74**	**55.65**	**65.32**	**58.67**
Design Score (On 20)	15.5	13.3	8.7	13.1	14.6
Features Score (on 30)	22.5	10.5	13.5	18	15
Performance Score (On 50)	40.68	23.94	33.45	34.22	29.07
Positives	Good design, Efficient, light, great display, text to speech, wireless ebook delivery, store support	Portable, touch input	Decent touch, Formats supported	Convenient design, scribble function, good build quality	Ultra-light, simple to use, online store
Negatives	No expandable memory	Glossy display	Too heavy, expensive	Costly	Flimsy build quality
Specifications					
Formats Supported	Mobi, PRC, Txt, AZW, PDF	ASCII and Unicode TXT, DOC, HTML, PDF, FB2, EPUB, JPEG, BMP, PNG, GIF, MP3 and WMA	PDF, EPUB, TXT, HTML, DOC, RTF, WOL, CHM, RAR and ZIP, BMP, JPG, PNG, GIF, PDB, FB2, DjVu, LIT and MP3	PDF, TXT, HTML, MOBI, EPUB, CHM, PDB, JPG, PNG, GIF, BMP, TIFF MP3 and WAV	PDF, EPUB, HTML, TXT, MOBI, DOC, JPG, BMP, PNG, MP3
Weight (grams)	241	200	510	250	180
Display Type	E-Ink Pearl	E-Ink	Sipix	E-Ink Vizplex	E-Ink Vizplex
Dimensions (L x W x H) (mm)	190x124x9	159x116x10	263x172x11	198x121x10	188x118x9.5
Battery Rating	1530mAh	1400mAh	2300mAh	1600mAh	1000mAh
Battery type	Li-ion Polymer	Li-ion Polymer	Li-ion Polymer	Li-ion Polymer	Li-ion Polymer
Storage	4 GB	2 GB	2 GB	512 MB	512 MB
Bundled Accessories - Charger | Sleeve | Data cable | Earphones	Y | N | Y | N	Y | N | Y | Y	Y | Y | Y | Y	Y | Y | Y | N	Y | N | Y | Y
Design (on 100)	**77.5**	**66.5**	**43.5**	**65.5**	**73**
Weight (score on 30)	22	25	5	18	26
Feel (texture, grip, tactility, etc)	8	7	7	7	6
Ergonomics – comfort, heating	24	18	15	21	21
Average design rating (subjective) (score on 30)	23.5	16.5	16.5	19.5	20
Features (On 100)	**75**	**35**	**45**	**60**	**50**
Inbuilt Dictionary (Y/N)	Y	N	N	N	N
Annotation (Note Taking) (Y/N)	Y	N	N	Y	Y
Memory expansion (Y/N)	N	Y	Y	Y	Y
Text to speech (Y/N)	Y	N	N	N	N
Online store support (Y/N)	Y	N	N	N	Y
Music playback (Y/N)	Y	N	Y	Y	Y
Browser (Y/N)	Y	Y	Y	Y	N
Touch support (Y/N)	N	Y	Y	Y	N
Performance (on 100)	**81.37**	**47.89**	**66.91**	**68.45**	**58.15**
Display (on 40)	35.2	19.2	26	29.6	26
Resolution	600*800	600*800	768*1024	600*800	600*800
Levels of gray	16	8	8	16	8
Outdoor performance (glare)	8	4	7	6	7
Text readability	8	5	7	6	7
Speed (on 20)	16.09	10.60	13.19	14.47	11.10
Page flip speed (on 10)	8	7	7	7	6
Data transfer (177 books – 100 MB) (Seconds)	147	898	212	154	266
Format support (on 15)	8.57	6.42	10.71	10.71	10.71
Ebook Support – PDF | Mobi | Epub | PRC | Doc | Txt | Lit	Y | Y | N | Y | N | Y | N	Y | Y | Y | N | N | N | N	Y | N | Y | N | Y | Y | Y	Y | Y | Y | N | Y | Y | N	Y | Y | Y | N | Y | Y | N
Battery (on 15)	11.5	5	7	7	7
Standby time (days)	9	3	3	3	4
Charging time (hours)	2.5	2	4	4	3
Connectivity (on 10)	10	6.66	10	6.66	3.33
WiFi	Y	Y	Y	Y	N
3G	Y	N	Y	N	N
USB	Y	Y	Y	Y	Y

Contact Details				
Brand	**Contact**	**Phone**	**Email**	**Website**
Infibeam	Infibeam.com	+91-79-4026 0260	customerservice@infibeam.com	www.infibeam.com
Leaf	Vestal Enterprises Pvt Ltd.	+91-44-2434 2833	info@leaf-reader.com	www.leaf-reader.com
Amazon Kindle	Amazon.com	+1-206-266 0927	NA (web page interaction)	www.amazon.com

Complimentary video

We have included an exclusive video on the Digit DVD this month to give you a feel of the ebook readers we have tested

BEST BUY digit FEBRUARY 2011

digit FEBRUARY 2011

Leaf **Touch Mega**

This ebook reader from Leaf is a rather large one and weighs a massive 510 grams. Although we could give you a discourse on holding a device that weighs half a kilo to unwind and read, we'd leave that for later. It also has a capacitive touch screen, but that didn't impress us either. On the good part, it reads almost all the formats you can think of and has a 9-inch screen that lets you read magazines and newspapers at ease. But it wears you out rather quickly and you'll soon want to keep the device aside and roll your wrists a bit for relief.

For most part, it makes sense to opt for this device for commercial use rather than personal use. It makes a better enterprise tool instead of a personal reading companion that we'd rather prefer. Add to that its price tag of nearly ₹26,000 and you'd be better of with a touch-capable swivel netbook or a tablet. And yes, it does have an email client that you could configure your mailbox to, but considering the lag and the effort it takes to type on the QWERTY keyboard, it seems unlikely you would ever use this for email. The Mega Touch highlights the mail box on its home page, but not the browser. When we initially explored the Mega, we thought it didn't have a browser. That, we believe needs to improve – its UI.

Mega Touch: Heavyweight

It has a pair of speakers built into it, but they don't reproduce sound as effectively as we desired. The Mega has optional 3G. In fact it had a SIM card slot, but unlike Amazon's offering of free global coverage, you'd have to shell out massively to stay covered at all times. We're Indians – every rupee counts.

Amazon **Kindle**

Despite being 0.5-mm slimmer than the Infibeam Pi, it has managed to accomodate a 3.5-mm audio jack instead of the lousy 3-mm jack we mentioned in the Pi. Although there are limitations in the number of formats supported by Amazon, these limitations are compensated by the sheer volume of books Amazon has to offer on the Kindle store.

If popular opinion counts, you can be sure of strangers walking up to you and enquiring about the device your using. Many around you find the resemblance to paper unbelievably real to be a display. When we passed the Kindle around our office, there was the typical excitement of having made a discovery.

Amazon Kindle: Companion

In addition to the brilliance in design, the Kindle also supports social networking. You can highlight a portion of the text you are reading in your vast collection, and share it as your status on Twitter or Facebook, complete with a short URL – for free! In addition, the inbuilt browser is effective and free global 3G really helps. Whether you're at home, in office or travelling, the least you get is free email!

Another feature in the Kindle is text-to-speech. Your Kindle can read the book to you, and sounds much better than the Microsoft's text to speech tool. You can alternate between a male and female voice. In addition, the Kindle has some hidden features, including a game of Gomoku and Minesweeper. Also, it lets you take screenshots of the page you are reading, and has a scientific calculator. To know more about hidden features in the Kindle, go to bit.ly/dhV1oJ.

On the down side, the Kindle doesn't read DOC files, so you would have to convert files to either of the ebook formats and transfer them manually. Instead, Amazon converts your document and delivers it to you instantly for a "tiny" fee of 15 cents per MB. If you are considering buying an ebook reader, the Kindle definitely ranks high. Of all the ebook readers we looked at, the Kindle and Leaf Touch Pro were the only ones to distinguish between 16 shades of gray.

For one, the level of white on the screen is far more important than the levels of grey – it's text we're talking here – a darker shade of gray instead of black doesn't really matter. What's more noticeable is the underlying white, anything that best mimics paper will capture your attention.

WHICH EBOOK READER IS RIGHT FOR YOU?

QUICK RESPONSE

If you need a quick system that responds fast, then the Kindle is your safe bet. The next option in that order would be the Leaf Touch Pro and Mega, followed by Infibeam Pi and Leaf Touch.

WEIGHT

If unwinding is why you need an ebook reader then you would definitely consider weight, because heavy devices tend to strain your wrists. This time, the Infibeam Pi literally outweighs the rest significantly. It's the lightest of all. Followed closely by the Leaf Touch and Amazon Kindle.

FILE FORMATS

If file formats are critical to you, then the Leaf Touch Mega is the one you should be looking at. It supports nearly all formats you could think of. In fact, it supports more formats than the Kindle.

EASY DOWNLOADS

Nothing beats the fact that you can use the Kindle 3G anywhere in the world to access the Kindle store – click download and start reading a minute later!

OUR VERDICT...

Our test results rate Amazon's Kindle as the Best Performer. For its price and also considering its rich feature set, we recommend it as the Best Buy. The only sub-₹10,000 ebook reader, the Infibeam Pi, is our Editor's Pick. We look forward to testing many more ebook readers, and also expect to see many more Indian players jump on to the E-Ink bandwagon, so keep your eyes peeled for those as well.

IBM and ARM to work together
IBM and ARM will be working on advanced semiconductor technologies designed to power the next generation of mobile devices

BlackBerry blinks finally
RIM revealed that it has made the BlackBerry Messenger service accesible to the government such that communication can now be intercepted or eavesdropped by the goverment

Intel Core i7-2600K and Core i5-2500K

The new generation Sandy Bridge processors are fast

Nimish Sawant

Sandy Bridge processors are based on Intel's high speed 32-nm fabrication process and is the second generation of the Core i3/i5/i7 processors. The two processors that we are testing are Intel Core i7-2600K and Intel Core i5- 2500K.

This line of processors will need a completely new socket – LGA 1155. They are not backward compatible on the earlier LGA 1156 sockets even though the size of the socket is the same. However, you can still use the cooler on your LGA 1156 socket on the new motherboards. At present, there are two chipsets namely Intel P67 and Intel H67 on which majority of the motherboards are based.

The Core i7-2600K is a quad-core 3.4 GHz processor supporting hyper-threading whereas Core i5-2500K is a quad-core 3.3GHz processor without hyper-threading. The K indicates that the processors have an unlocked multiplier.

These processors are based on the new Intel micro-architecture according to which the CPU cores, graphics core, memory controllers, power control unit, etc are on the same 32-nm die. Also all these blocks run on the same clock frequency of 100MHz.

Integrated Graphics is the crowning glory of this line of processors, as the graphics core is on the same die as the processor.

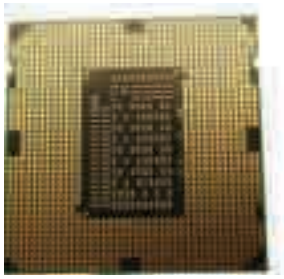
You can only overclock by adjusting the multiplier ie. Overclockers should only look at K series processors. Thanks to the integration of all the controllers like USB, SATA, power controllers, onto the same die as the cores, BCLK is set to 100 MHz for all blocks. So if you change the BCLK from 100MHz, it may mess up other controllers. Also H67 based motherboards will allow only graphics overclocking.

The Core i7-2600K scored better than the previous generation Core i7-875K in most of the tests. It performed 10% better in 3D Mark Vantage, 20% better in Cinebench R10 and POV Ray and around 15% better in HandBrake encoding.

In Core i5-2500K, the absence of hyperthreading was felt in some tests, but it still managed to beat the six- core AMD processors, which was quite good.

The Sandy Bridge processors are ideal for enthusiasts, who do not want to pay an arm and a leg for performance. Unlocked cores and a lower TDP enable you to easily overclock above 4.5 GHz on air cooling. Theoretically, the fully unlocked multipliers can be streched upto 57x ie. 5.7GHz operating speed.

The Core i7-2600K is priced at ₹18,000 and Core i5-2500K is around ₹12,000. For those wanting to build a new mainstream rig Sandy Bridge processors are definitely recommended.



Intel Core i5-2500K

Intel Core i7-2600K

Contact

Intel
Phone: 91 80 2854 2105
Email: sasupport@mailbox.intel.com
Web site: www.intel.com

Scores and Ratings

Brand	Intel		Intel	
Model	Core i7 2600K		Core i5 2500K	
Price	₹ 18,000		₹ 12000	
Turbo Boost Enabled	No	Yes	No	Yes
Core Frequency	3.4	3.4	3.3	3.3
Performance				
Synthetic Benchmarks				
3D Mark Vantage (Overall / CPU Score)	15537 / 53023	15474 / 53744	15457 / 50846	15432 / 52466
Cinebench R10 CPU Rendering (800 x 600, all cores)	18187	18834	15428	16008
Real World Benchmarks				
Maya 8.0 Rendering (sec) (1K pixels, prod quality) all cores	9	9	11	10
HandBrake x264 encoding (sec) 300 MB VOB to MP4	122	118	150	147
iTunes (converting 180 MB songs from MP3 to AAC) (secs)	110	106	110	112
Far Cry 2 (1280x1024, DX10, High)	115	115	115.9	115
Crysis Warhead (1280x1024, DX10, Med)	74	75	74	75
Ratings				
Features	7.5		7	
Performance	8.5		7	
Value for money	7		7.5	
Overall	7.5		7	

For a more detailed review on the Sandy Bridge processors log on to http://bit.ly/gNWFz0

Maxtone KPC-A5

Evolution or confusion?

Siddharth Parwatay

This is one of the most unique products we've received this year. It's an entire PC retrofitted into a keyboard form factor. The configuration includes an Intel GMA 3150 graphics adaptor with an Atom D510 CPU clocked at 1.66 GHz. So basically it's a netbook in the shape of a keyboard, or rather a net-top without a screen, whichever way you look at it. We ran a mixture of our netbook as well as PC testing benchmarks on it to test performance. Just to give you a relative comparison it returned a CPU score of 1482 on PC Mark Vantage as against 1368 scored by an N445 based netbook. But more than synthetic benchmarks we were interested in real world performance. Will it play HD was the question? And the answer is yes and no - 720p scrolled played without hitch while 1080p stuttered at times.

The device was full of other contradictions too - the keyboard was nice but the touchpad (located where the numpad usually is) was so horrible that we couldn't help but attach a mouse. A pleasant surprise was that despite the small form factor the device doesn't heat up a lot. Four USB ports seem just passable, but it also features an SD-card reader slot - a good idea.

At an on box MRP of ₹14,590 (without OS) the product tips over to the expensive side simply because you need to invest in a monitor separately. But considering the novelty and space saving advantages we wouldn't be too harsh on it.

Specifications

CPU: Intel Atom D510 @ 1.66 GHz; RAM: 1GB; HDD: 250 GB; Misc: DVD Writer, 4 USB, 1 VGA Out, Wi-Fi

Contact

Maxtone Electronics Pvt. Ltd.
Phone: 91 22 2301 1434
Email: meplsales@maxtone.com
Website: www.maxtone.com
Price: ₹14,950

6.5/10

Features	7.0
Performance	7.0
Build Quality	6.0
Value for money	6.5

BenQ XL2410T

3D gaming in an LED backlit glory

Nimish Sawant

BenQ XL2410T is a first 120 Hz monitor which has an LED backlit LCD screen. The 23.6-inch wide screen TN panel monitor has a matte black bezel which prevents any background reflections that can be distracting. The rectangular stand is very sturdy. XL 2410T's height can be adjusted and it also has the ability to be mounted in a vertical alignment. Recessed display ports are a good idea and it sports HDMI, DVI as well as VGA ports. Overall ergonomics are really good except for the placement of monitor control buttons under the base in the bottom right hand corner. Blindly operating the monitor will take some learning.

The monitor allows you to set monitor profiles for up to two games and has a special FPS mode. You also have the option of picture-by-picture mode which allows you to get two video feeds (HDMI/DVI and HDMI/VGA) onto your monitor.

Since it has a TN panel, we got a moderate contrast ratio of 280 : 1 in Spyder3Elite benchmark. We also noticed a slight reddish tinge in the black and white intensity ramp tests. HD movie viewing was a great experience though we noticed some amount of backlight bleeding in completely dark scenes.

As for 3D experience, the 3D still image viewing was flawless. As far as 3D gaming goes, all we can tell you is, yes we were able to play 3D content. Was it good? Well, it was as good (or bad) as the state of 3D technology is right now. Scenes in Crysis with dense forests did not give very good depth.

It is priced at a jaw dropping ₹31,200. It's clearly targeted at the niche hardcore gamers.

Specifications

Screen size : 23.6-inch; Panel: TN; Backlight: LED backlit LCD; Resolution: 1080p; Picture-by-picture mode

Contact

BenQ
Phone: 1800 419 9979
Email: sales.enquiryin@benq.com
Website: www.benq.co.in
Price: ₹31,200

7.0/10

Features	7.0
Performance	6.5
Build Quality	8.0
Value for money	6.0

3D mobiles from LG
After Spice and Sharp coming out with 3D mobile phones, LG has announced plans to come out with their 3D mobiles soon

Ice Cream Sandwich rumours
No sooner has the Android 2.3 Gingerbread entered the market, than we are starting to hear rumours of Android 2.4 being called Ice Cream Sandwich

ASUS G53J

A 3D gamer's delight but we want more

Vinod Yalburgi

ASUS G53J is the successor to the famed G51Jx 3D claimed to be the World's first gaming notebook with support for NVIDIA 3D vision. The G53J differs from the G51Jx with the powerful NVIDIA GeForce GTX460M graphics card and an embedded 3D receiver. It's built like a tank with a slightly thicker than normal plastic body and a rubberised matte-black finish on the outer surface of the lid & palm-rest, giving it a rugged feel and look.

The NVIDIA 3D vision feature delivered decent frame rates on Crysis Warhead. However, the image clarity looked blurry and disoriented at times particularly during fast-paced action. The stereoscopic 3D strained the eyes, as it delivered layered images on the screen to give us an illusion of depth. The battery life is ordinary, but that is to be expected from such a powerful configuration.

Overall, the ASUS G53J does not compare well with any of the top gaming laptops or even the Alienware M15x in terms of benchmarks or overall performance. It is a decent performer which even tops the Alienware M15x in the overall 3D Mark score. A staggering price of Rs. 112,499 is too much for a decent gaming laptop.

Specifications

Processor: Intel Core i7 - 720QM; Memory: 8GB DDR3 1066MHz; Chipset: Intel HM55 Express; Graphics: NVIDIA GeForce GTX 460M; Hard drive: 750GB x 2; Display: 15.6-inch LED backlit, Screen resolution: 1366 x 768; Weight: 3.6 Kilograms;

Contact

ASUS Technology Pvt. Ltd.
Phone: 91-22-67668831
Email: rohan_kadam@asus.com
Web site: www.asus.in
Price: ₹112,499

7.0/10

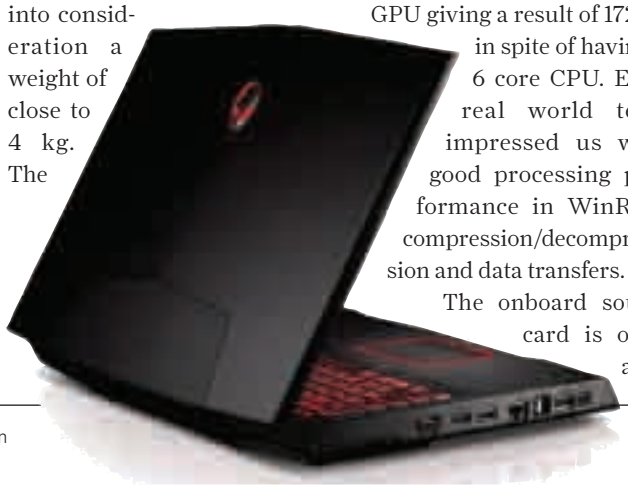
Features	7.0
Performance	7.5
Build Quality	7.0
Value for money	6.0

Alienware M15x

Great performance and looks but a hefty price tag

Archit Kumar

First off, it would actually be unfair to call this Alienware a laptop; one could call it a mobile desktop, especially when you take into consideration a weight of close to 4 kg. The test results were very impressive, good enough to stump a desktop of a medium to high end configuration. It gave an overall score of 12161 in 3D Mark 06 which is relatively high when you compare it to a desktop having the same GPU giving a result of 17200 in spite of having a 6 core CPU. Even real world tests impressed us with good processing performance in WinRAR compression/decompression and data transfers.



The onboard sound card is okay and the speakers are not all that impressive.

Custom lighting allows the Alienware M15x to have different illumination for your keyboard, trackpad, speakers, etc. Ergonomically the laptop is very well designed, with two intake fans on both sides towards the rear on the bottom, and exhaust vents on the rear side - one for the CPU and one for the GPU. They do a good job at keeping the laptop cool.

Overall, a great performer with great looks but a hefty price tag. Shocking letdowns are quality of speakers and the lack of DirectX 11 support.

Specifications

Processor: Core i7 940XM clocked @ 2.13 GHz; Memory: 6 GB DDR3; Chipset: Intel PM 55; GPU: Nvidia GTX 260M; Screen: LED-backlit 15.6 inch

Contact

Dell
Phone: 1800-425-4026
Email: NA
Web site: www.dell.co.in
Price: ₹1,80,000

8.0/10

Features	8.0
Performance	8.0
Build Quality	9.0
Value for money	6.0

Samsung ST80

Digital camera with integrated social-networking

Nimish Sawant

If there was one thing missing in today's compact digital camera's, then it has to be social network connectivity. This is one edge, connected smartphones have over digital cameras. But Samsung has closed that gap with its latest offering - the ST80, which comes with an internal WiFi antenna which allows you to transfer photographs over the air.

The ST80 comes in a cozy form factor with rounded edges all around. The zoom lens occupies around half the front portion real estate. On the back you have a 3-inch wide touch screen surrounded by a textured bezel. Build quality is quite tacky with an overall plastic body.

Macro shots were dissappointing as the focussing was not upto the mark. We noticed a lot of noise in most of macro shots. Daylight shots also left a lot to be desired. ISO performance is good upto ISO400, after which images are heavily noisy. Low light photography is not this camera's strong point either. It can record upto 720p video, but the auto focussing while shooting and zooming in and out in live video mode was really bad. The front portion of the camera tends to heat up after prolonged use.

Wireless performance was what impressed us. It was fun transferring images and videos to our social networking pla forms without having to go through the whole ritual of transferring images to the desktop and then uploading them.

At ₹14,999 the camera is adequately priced for the WiFi connectivity feature. It's ideal for those who want to instantly share photos. Definitely not recommended for the discerning photographer.

Specifications

Sensor : 14.2MP; ISO range : 100 - 3200; WiFi connectivity; Video resolution : 720p; Media : MicroSD card; Internal Memory : 22MB; Image Stabilization present

Contact

Samsung India Electronics Pvt. Ltd
Phone: +91 12 4488 1234
Email: sharad.a@samsung.com
Web site: www.samsung.com/in
Price: ₹14,999

6.0/10

Features	8.0
Performance	5.5
Build Quality	5.0
Value for money	6.5

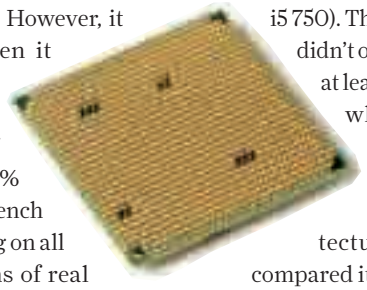
AMD Phenom II X4 975 BE

Fastest clocked quad from the AMD stable

Siddharth Parwatay

The start of the new year brings a powerful processor from AMD with a strong lineage – the Phenom II family. Clocked at 3.6 GHz, this makes it the highest clocked, top-of-the line quad core CPU from AMD. Being a Black Edition piece, it belongs to the enthusiast grade, easily overclockable range of processors that feature an unlocked multiplier.

We ran the CPU though the whole gamut of our test process benchmarks. The processor is surprisingly adept at Floating Point stress benchmarks, inching ahead of the top of the line Intel quad core – the Core i7 875K. It returned a score of 11.341 sec on Wprime (32million) as against a 13.543 sec by the Intel CPU. However, it fell short when it came to rendering benchmarks - the i7 875K was 30% faster at Cinebench CPU rendering on all cores. In terms of real world benchmarks, as expected, it was slightly ahead of other AMD predecessors such as the 955 and 965 BE.



AMD has always been the leader when it comes to providing value based solutions. We compared it to the sub ₹10,000 Sandybridge i5 2500K which is the next iteration in the i5 series. (We didn't have the i5 750). The 975 certainly didn't outperform, but at least held its own, which is good considering Sandybridge is a new architecture. We also compared it to the six core X6 1075T. With that particular CPU it's worth noting that if you're not an overclocker and ready to plonk in about ₹500 more, you get two additional cores (good for future proofing).

Specifications

Socket: AM3; Cache: L1 512, L2 2GB, L3 6GB; Stock CPU Clock: 3.6 Ghz

Contact

AMD India
Email: fusion.india@amd.com
Web site: www.amd.com
Price: ₹10,000 approx ($200)

7.0/10

Features	6.5
Performance	7.0
Build Quality	NA
Value for money	7.0

Infibeam Pi2 out
Infibeam Pi2 is the successor to the ebook reader Pi and features a touchscreen, more storage and WiFi connectivity at an introductory price of ₹14,999

DX11 APU for embedded systems
AMD announced the G-series processors which is the world's first DX11 accelerated processing unit for embedded systems

Razer Naga Molten Special Edition

Bridging the gap between keyboard and mouse

Siddharth Parwatay

The Naga is a mouse specially designed for Massively Multiplayer Online (MMO) games and has an unbelievable 17 programmable buttons. If looking at the numpad like thumb grid, you're wondering "is it a keyboard or a mouse?", we wouldn't blame you.

To use the Naga effectively, you'll certainly need to have some Korean blood. It seems hugely unfair to unleash the Naga in an MMO or RTS as it comes complete with add - on support for specific games that enable you to use those additional buttons in interesting ways. It's like bringing a nuke to a gunfight. And we agree with the tag line, the mouse does help you Get Imba (imbalanced). At the same time (Korean blood or not) if you thought using so many buttons would be difficult, you're not alone, so did Razer. They have graciously included a grid trainer in the bundle, which helps you get used to the Thumb Grid. The last two rows are still just too difficult to reach.

In terms of performance it does not disappoint. Despite the bulk it's still very ergonomic and easy on the hand even after extended use. The build quality is very good. Tracking was flawless on most surfaces. The mouse features feet that run around the entire base of the mouse. This increases the drag a bit making the mouse not as nimble, as say the Lachesis that we tested last month. But this is not necessarily a disadvantage once you get used to it. For the price of Rs. 4,990 it's a good mix for features and performance for the gaming scenario it was designed for.

Specifications

Sensor DPI : 5600; Type of Sensor : Laser; Response time : 1 ms; Max Acceleration : 50 g

Contact

Sashank Bhandaru
Email: sashank.bhandaru@razerzone.com
Web site: www.razerzone.com
Price: ₹4,990

7.5/10

Features	7.5
Performance	7.5
Build Quality	8.0
Value for money	7.0

Sony NEX-5

For those in-between shots

Michael Browne

In the form of the NEX series, Sony has an interesting segment for us. We're not quite sure what to call it, but they are basically small camera bodies with removable lenses and 1.5x crop sensors. That's right! - instead of the piddly 8 x 5 mm sensors found on most compact cameras. So how did it fare?

With well-lit environments, and outdoor shots, the NEX-5 focusses pretty fast, and accurately. With dim conditions, focussing becomes slower, at times as much as 4-5 seconds will pass when focussing on darker objects that have no highlights. Once it does focus, you're treated to most of the goodness only dSLR users enjoyed in the past. The sensor on the NEX-5 proves its mettle with minimal noise. Compared to a compact point-n-shoot, the NEX-5 produces a clean output, devoid of noise till ISO 800, where a fine bit of film-like grain begins to creep in. The NEX-5 produces fairly neutral colours, except for reds, that appear slightly richer than other colours, but not unpleasantly so.

A stylish camera, although, the removable lens system makes it nearly as inconvenient as a dSLR. The lack of variety in E-mount lenses will likely be a crippling factor.

At Rs. 34,990, the Sony NEX-5 is expensive, but it also delivers near-dSLR quality with a smaller body. All in all, something for the enthusiast craving more performance.

Specifications

Sensor: 14.2 megapixel, Sensor size : 23.4 x 15.6mm; Max video recording res: 1080i; Memory: MS PRO Duo; Weight: 287 grams (without lens)

Contact

Sony India
Email: sonyindia.care@ap.sony.com
Web site: www.sony.co.in
Price: ₹34,990

7.0/10

Features	7.0
Performance	7.5
Build Quality	7.0
Value for money	6.0

Asus O!Play HD2

HD Media Players, redefined

Vishal Mathur

The new Asus O!Play HD2 Media Player walks the path of trying to offer a lot of features in one box. The glossy black body is a fingerprint and scratch magnet. The front panel has the memory card slot and a USB input, making it look a little shabby.

It definitely looks much bigger than the WD Live Hub. However, the HD2 is capable of holding a 3.5 inch hard drive, which you buy separately, as against the 1TB 2.5-inch which WD have pre-installed in the Live Hub. It supports USB 3.0 standard, making it future proof. Internet connectivity offers widgets like Flickr, YouTube and also the ability to download torrents. You can also control HD2 via an iPhone app.

The HD2 takes about 14 seconds to start up. The interface is not very sleek. - a circular design paired with huge icons. All videos, be it SD 720p HD and 1080p HD play perfectly. The colours, after the upscale treatment did not feel washed or faded. Dark scenes looked good. Movie load time floats between 2 seconds and 3.2 seconds, depending on the file size and resolution. There was a slight stutter in fast moving scenes. The remote is a huge improvement over the one offered with the predecessor, the Asus O!Play HD.

At a price of ₹8,000, the O!Play HD2 offers an excellent HD video experience and the goodness of torrents.

Specifications

Ports : HDMI 1.3, Composite and Component video; Resolution : 1080p; Internet widgets : YouTube, Flickr, Picassa, etc; Torrent support : Yes

Contact

ASUS Technology Pvt. Ltd.
Phone: 1800 209 0365
Email: reachus@asus.com
Web site: www.asus.in
Price: ₹8,000

7.5/10

Features	9.0
Performance	7.0
Build Quality	7.0
Value for money	7.0

Sony NWZ E454

Well rounded mid-range PMP

Siddharth Parwatay

The NWZ E454 is the latest Walkman series PMP that we go our hands on. In terms of looks, it seems to be a watered down reincarnation of the NWZ A845, that we tested some time ago. However, the device is big on features which include Lyrics support, variable playback speed, sectional looping for learning languages, Karaoke, and SenseMe that analyses songs into categories like upbeat, energetic etc for mood-based playback. Not all of the features work as well as they should and are a little tedious to use. For instance the SenseMe feature requires analysis of files through a 12 tone analysis process while they're being transferred; which obviously takes longer and is about 70% accurate.

We received the black variant and the player doesn't look bad at all. Build quality is pretty good but the finish of the plastic is slippery - an inadvertent drop test or two nearly happened until we got used to gripping it more firmly. As far quality, the playback on our current reference headphones (HD 428s) left us with nothing to complain about. The bundled ear phones however are one of those hard plastic buds, which not everyone likes. That is not to say they were bad in terms of sound reproduction, just lacked a little comfort and noise isolation. The UI is very friendly and intuitive, reaffirming the belief that it's not just Apple that can make good UIs. At a price of ₹6,990 this is a good PMP and competes well with the likes of Creative's Zen X-Fi Style.

Specifications

Capacity: 8GB; Audio: MP3, WMA, AAC-LC, Linear PCM Audio; Video:AVC (H.264), MPEG-4, WMV 9, AAC-LC Video; Display: 2inch, TFT, 256k, 240x320

Contact

Sony India
Email: sonyindia.care@ap.sony.com
Web site: www.sony.co.in
Price: ₹6,990

7.5/10

Features	8.0
Performance	7.0
Build Quality	6.5
Value for money	7.0

Bazaar mini

QUICK INSIGHTS FROM INDEPTH TESTS

The Digit Test Centre receives hundreds of products every month. Each of these products is put through a series of tests, and are finally given a verdict. The final score is arrived at after considering a number of factors and evaluating them in terms of features, performance, value for money, build quality, and in the case of software even ease of use.

For better understanding of our ratings, here's a quick guide to our overall score

1-3 - Extremely poor product. Keep away!
3-5 - Strictly OK product. Not recommended
5-6 - Decent product. Go for it, but there maybe better products.
7-8 - Very good product. Highly recommended.
8-10 - Ground-breaking product. We've never seen anything like it before. A definite must buy!

Larry Page to be new CEO

Google co-founder Larry Page will take over from Eric Schmidt as the new CEO of Google on on 4th April whereas Schidmt will take on the role of Executive Chairman

CELLPHONES

Spice M-67 3D

Price : ₹4,299

Motorola QUENCH XT5

Price : ₹15,990

SPECIFICATIONS

	Spice M-67 3D	Motorola QUENCH XT5
OS		Android 2.1
Screen	2.4-inches	3.2 inch
Resolution	240x320	320x480
Battery Rating	1100mAh	
Camera	2 MP	5 MP

TEST CENTRE RATINGS (All Scores out of 10)

Features 6.5
India's first 3D phone, with an auto-stereoscopic display, which creates an illusion of depth.

Performance 6.0
Decent signal reception and voice clarity. We saw blurry images sans any 3D while testing the pre-installed 3D content

Build Quality 6.0
The design hinders comfortable keypad navigation.

Value for money 6.0
A better camera and multimedia performance could have made it a value for money phone.

Features 7.0
The minimalist MotoBlur UI looks much better than the HTC Sense UI.

Performance 6.0
The phone is fine in most scenarios, but only feels a bit sluggish when it comes to opening a lot of apps at once.

Build Quality 8.0
Feels more expensive than it actually is.

Value for money 7.0
At a market price of about ₹13,500, the XT5 does position itself as a steady alternative

WE SAY

6.0

The Spice M-67 3D is a feature-rich dual SIM phone with stereoscopic 3D capability. At a price tag of ₹4,299, it is disappointing to bear the shortcomings of a stereoscopic 3D display, which is marketed to be M-67's main selling point. The only big plus has been the excellent video playback. It plays video without stuttering of any sort. Given the price, we definitely do not recommend it.

ALSO SEE:
1) **Micromax Qube**
Digit, October 2010

2) **Aroma AD555**
Digit, December 2010

7.0

The XT5 is powered by the Qualcomm MSM7227 processor which clocks at 600MHz and is paired with 256MB of RAM The fact that it is still stuck on the Android 2.1 version puts it at a disadvantage against the rivals. However, the superb overall performance and a distinctly better screen makes the XT5 a better deal than the Wildfire. However, the LG Optimus One may just have stolen the march, thanks to the lower price and Android 2.2 running in its veins!

ALSO SEE:
1) **HTC Wildfire**
Digit, November 2010

Star Wars Blu-Ray discs

The entire Star Wars saga can now be viewed in Blu-Ray glory come September 27th says Amazon

Google Offers Vs Groupon

Google is getting ready to launch Google Offers, its answer to group discounts website Groupon

PMP

Zebronics Zebmate Cinema 3.0

Price: ₹3,200

SPECIFICATIONS

Capacity ..... 4 GB
Screen ..... 3-inch TFT
Audio format ..... MP3, WMA
Video format : ..... AVI, MOV, DIVX, etc

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.0
Offers audio and video playback on its 3-inch screen. Also features a radio tuner and e-book reader

Performance 6.0
Clear audio. Freq response is decent, but bundled earphones are of extremely poor quality. Menu navigation is painful partly due to UI and button layout.

Build quality 5.5
The device has a plasticky feel to it, but manages to look classy. Button are tacky.

Value for money 6.5
At ₹3300, the 4GB storage, 3 inch screen and video playback capabilities seem enticing

WE SAY

6.0

Zebmate Cinema 3.0 is not the most comfortable media player to use. Menu navigation buttons are spread across the front and side panel, which makes it a pain to use. The 400x240 resolution screen is good enough for videos, but do not expect anything more than a no-frills video viewing.

ALSO SEE:
1) **Sony NWZ-W252**
Digit, September 2010

2) **Apple iPod Nano**
Digit, December 2010

3) **Apple iPod Shuffle**
Digit, December 2010

MOTHERBOARD

Gigabyte 890FXA UD7

Price: ₹15,000

SPECIFICATIONS

Chipset ..... AMD 890FX-SB850
Socket AM3
PCI slots ..... 6 PCIe x16
SATA ports ..... 6 x SATA 2, 2 X SATA 3

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.5
Houses the AMD 890FX-SB850 chipset. Has six PCIe x16 slots and supports USB3.0

Performance 7.0
Cinebench R10 : 14209; 3D Mark Vantage : 15163. Average scores as compared to MSI 890FXA-GD70. Gaming scores and other real life test scores were at par

Build quality 9.0
Sturdily built board with heatsinks connected by pipes. Layout very dense.

Value for money 6.5
At ₹15,000 the 890FXA-UD7 fulfils all the requirements of a high end motherboard

WE SAY

7.5

The 890FXA-UD7 is a very feature-rich board which will appeal to enthusiasts. Real life scores were at par with its peers. Power, reset and Clear CMOS buttons and waterblock on NB chipset are features that will be appreciated by enthusiasts. Definitely recommended

ALSO SEE:
1) **ECS Elitegroup Black Series A890GXM-A**
Digit, April 2010

2) **Gigabyte GA-890GPA-UD3H**
Digit, April 2010

PORTABLE SPEAKERS

Logitech Rechargable Speaker S715i

Price: ₹9,995

SPECIFICATIONS

Device support ..... Apple iPods
Dimensions ..... 386x 60x 132 mm
Weight ..... 0.68 kg

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.0
iPod dock with auxiliary input port on the rear side. It houses eight driver sections.

Performance 6.5
Plays mid frequencies quite well. The sound distorts at maximum volume. When disconnected from the power outlet loudness drops. High frequencies clipped.

Build quality 8.0
Sturdy build, coming in an all black body. The driver sections on either side are rounded

Value for money 6.5
At ₹9,995 this is expensive considering its performance

WE SAY

6.5

Logitech S715i is a good iPod dock and allows you to control your iPod via a remote control. But it cannot get out of the album mode which we found strange. The in-built rechargable battery which requires around four to ten hours for charging makes the S715i quite portable, but at the cost of bass and loudness. Auxillary device sound quality is quite average. Performance could have been much better considering it has eight drivers.

JBL On Stage IV Portable iPod Dock

Price: ₹7,990

SPECIFICATIONS

Device support ..... Apple iPods
Dimensions ..... 68 x 210 x 210mm
Weight : 700g
Frequency Response ..... 110Hz – 20kHz

TEST CENTRE RATINGS (All Scores out of 10)

Features 6.0
Stunning looks. It can run on six AA batteries and comes with a not-so-great remote

Performance 6.5
While the speaker set is powerful enough for it's size, you can't play it at full volume. The dual 25mm drivers are weak on bass but clarity of mids is decent.

Build quality 7.5
The speaker feels sturdy and well built, while the design is very eye catching.

Value for money 6.0
At at price point of ₹7,990 the JBL On Stage IV is again an expensive little device.

WE SAY

7.0

The portability factor based on standard pencil cells is something we like – good for outings where you necessarily may not find a wall socket. The device however is not for all music. Bass heavy tracks will sound disappointing. It's okay for ambient tracks with not too much detail. High volume causes a sort of wavering of sound. We would've liked some control buttons on the device itself, but overall an iPod dock worth considering if you're not looking for earth shattering output volume and eye catching looks.

Opera Sony combine

Electronics giant Sony has chosen Opera to power up their latest services for BRAVIA Televisions and Blu-ray Disc players

StumbleUpon crosses Facebook

According to numbers released by StatCounter StumbleUpon had 43 percent of the U.S. social media traffic on January 1st, while Facebook trailed with 38 percent

HEADPHONES

MEElectronics HT-21 Portable Headphone

Price: ₹1,900 Approx

SPECIFCATIONS

Sensitivity..... 114 dB
Impedance..... 32 ohm
Chord Length..... 120 cm

TEST CENTRE RATINGS (All Scores out of 10)

Features..... 7.0
They are supra-aural (resting on the ear), closed cans that are foldable and feature a gold plated jack.

Performance..... 7.0
Bass is meaty, mids are good while the extreme highs are recessed. Loud without distortion.

Build quality..... 5.5
Sliding mechanism, quality of the pads not upto the mark

Value for money..... 7.0
At a sub-₹2000 price point they make for a decent buy.

WE SAY

7.0

After the stellar performance of the M6 from MEElectronics, these we're an eagerly reviewed pair of Headphones. They're bass-heavy almost to the point of causing bass fatigue. But considering the general public's infatuation with bass, this may not necessarily be a bad thing. Being supra-aurals, comfort is an important factor. The HT-21s unfortunately apply a little too much pressure on the ear (which may ease up over time). Overall a good pair of headphones with performance slightly ahead of Sennheiser PMX-60. Highly recommended for bass junkies.

Corsair HS1 Gaming Headphone

Price: ₹4,999

SPECIFCATIONS

Frequency Response..... 20-20,000 Hz
Sensitivity..... 93dB
Impedance..... 32 Ohms
Cable Length..... 3 m

TEST CENTRE RATINGS (All Scores out of 10)

Features..... 7.0
On the left ear cup you have the flexible microphone. Features software assisted Dolby surround sound (5.1 and 7.1 channel)

Performance..... 7.5
Mids and high frequency range was good. Bass was slightly subdued, though games don't require heavy bass.

Build quality..... 8.5
This the sturdiest headset we have tested in a long time.

Value for money..... 7.0
At a price of ₹4999 it is cheaper than the Razer Megalodon and decently priced.

WE SAY

7.5

Corsair HS1 is a very good gaming headset. It offers great comfort and can be worn for hours without feeling any sort of discomfort. Sound isolation is great. Performance of the headset while gaming was quite good, with enhanced sound separation which is important while gaming. As a music headset, it passed with flying colours in mids and high frequencies.

ALSO SEE:
1) **Razer Megalodon**
Digit, June 2010
2) **Skullcandy iCon2**
Digit, November 2010

GRAPHICS CARDS

Galaxy GeForce GTX 460

Price: ₹14,500

SPECIFCATIONS

Core clock..... 675MHz;
Memory Bus..... 256-bit
Display port..... DVI, HDMI
Memory 1GB GDDR5

TEST CENTRE RATINGS (All Scores out of 10)

Features..... 6.5
It comes in a slim form factor featuring single slot cooling. This ensures that the adjectent slot is not blocked

Performance..... 6.0
Performance was at par with Zotac GTX460 and Palit GTX460. 3DM Vantage – 15949; STALKER Clear Sky (1680x1050, 4xAA) – 33fps

Build quality..... 7.5
Strong passive heatsink around the GPU and a fan

Value for money..... 5.0
Considering the design overhaul, the card is expensive on the pocket

WE SAY

6.0

Galaxy GTX 460 Razer gives a performance which is at par with most other GTX 460 offerings from other brands with the same specs. Price wise its higher than the rest, which is understandable taking into consideration the slim design which will not cover PCIe slots closeby.

ALSO SEE:
1) **Palit GTX460 Sonic**
Digit, November 2010
2) **ZOTAC GeForce GTX 460**
Digit, August 2010
3) **ASUS ENGTX 460**
Digit, August 2010

AMD Radeon HD6950

Price: ₹17,400

SPECIFCATIONS

Core Clock..... 800MHz
Memory Bus..... 256-bit
Display port..... 2 x DVI, 2 x mDP, 1xHDMI

TEST CENTRE RATINGS (All Scores out of 10)

Features..... 7.0
It is clocked at 800MHz, with GDDR5 memory and 256-bit memory bus. Dual BIOS, three enhanced levels of anti-aliasing

Performance..... 7.0
As expected it is slower than the HD6970 but faster than HD68xx series. 3DMark Vantage : 17788; FarCry 2 (1080p, 8xAA, Ultra) – 54fps

Build quality..... 7.0
Sturdy build with a vapour cooling chamber.

Value for money..... 6.0
At ₹17,400 it is decently priced for its performance.

WE SAY

7.0

The AMD HD 6950 is marginally slower than HD 6970 due to the clock speed being 80MHz lower. The HD 6950 is priced between the HD 6850 and 6970 as the performance also follows that pattern. Performance wise there is quite a jump from the HD 68xx series, but if you are willing to spend we would recommend the XFX HD 6970.

ALSO SEE:
1) **Sparkle GTX 580**
Digit, December 2010
2) **ATI Radeon HD 5970**
Digit January 2010
3) **Sparkle GTX465**
Digit, Septermber 2010

HTC Flyer in March 2011

Rumours are flying around that HTC is going to launch its 7-inch tablet, running on Android 2.3 upgradeable to Android 3.0, sometime in March

MSI's projector tablet

MSI showed off a 10-inch Atom powered tabled with a built-in swivel projector attached to it which can project on a wall or flipped around to project on a table

GRAPHICS CARDS

XFX Radeon HD6970
Price: ₹22,550

SPECIFICATIONS

Core Clock 880MHz
Memory Bus..... 256-bit
Display Port..... 2xDVI; 2xmDP, 1xHDMI

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.0
This is the 2GB GDDR5 card based on the Cayman core architecture clocked at 880MHz. It can support a six-monitor display.

Performance 7.5
It is slower than the GTX 580 but around 20 to 30 per cent faster than the HD 68xx series cards. 3DMark Vantage : 19482

Build quality 8.0
Weighs in at about 2kg with a vapour cooling chamber and fan

Value for money 6.0
At an MRP of ₹22,550 it is a comparatively economical alternative to GTX 580.

WE SAY

7.0

This card is ideal for enthusiasts, with better tessellation engine than the dual GPU HD5970. Its support for 3D stereoscopic gaming and up to six monitors is a sweet add on. For those who are looking at economical alternatives to the faster HD5970 and GTX 580, the HD 6970 is right up your alley at present.

ALSO SEE:
1) **Sparkle GTX 580**
Digit, December 2010
2) **ATI Radeon HD 5970**
Digit January 2010
3) **Sparkle GTX465**
Digit, Septermber 2010

CAMERA

Canon Powershot G12
Price: ₹31,995

SPECIFICATIONS

Sensor ..... 10-megapixel, CCD
ISO range 80-3200
Aperture range f2.8-f4.5
Zoom 28-140 (5x)
Weight ..... 401 gm

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.5
Canon G12 has three dials, quite a lot of manual functionality, 5x optical zoom with a 2.8-inch LCD. It supports RAW file format.

Performance 7.0
Autofocus slower than expected. Colour output is generally good with neutral colours and no saturation. Noise starts above ISO 400

Build quality 7.0
Thicker than a Powershot and feels extremely dense.

Value for money 5.0
At an MRP of ₹31,995, the G12 is costlier than an entry-level dSLR with kit lens

WE SAY

6.5

A smaller body means the buttons are closely packed. But as far as compact cameras, things aren't so bad. At an MRP of ₹ 31,995, the G12 is costly. Entry level dSLR cameras are cheaper, and will give you better results. The G12 is as good as, or better than, most compact cameras, but it is also pricey enough to warrant second thought. At this price point, an ultra zoom would be better value. Need a compact camera? Buy an SX120 IS or thereabouts, and save a lot of dough. Need better image quality? Get a dSLR.

SPEAKER

Genuis SW-M2 Speaker
Price: ₹1,250 Approx

SPECIFICATIONS

Frequency response ..... 65 Hz- 20kHz
Sensitivity 85dB
Output power 11W
Connectivity ..... Audio out jack, headphone jack

TEST CENTRE RATINGS (All Scores out of 10)

Features 4.0
It has a 3.5mm audio jack for headphones which seems pointless. A 6W sub-woofer and 2.5W x 2 satellite speakers.

Performance 7.0
It performed quite well in the mids and highs. Bass was bad at maximum volume, but thanks to the controller can be adjusted to decent levels.

Build quality 7.0
The subwoofer is wood satellites are smaller plastic units.

Value for money 7.5
For under ₹1500, this is a great set of 2.1 speakers.

WE SAY

6.0

The Genuis SW M2 is a very good set of 2.1 speakers. You get great frequency response in the mid and high frequency region. As far as low frequencies go, we feel there is room for improvement. For instance, in a bass heavy song like Massive Attack's Angel skipping of beats was observed. Also the initial portion of U2's 'Where the streets have no name' was barely audible. Ideal for someone looking at a low cost replacement for their desktop or laptop speakers. And at an approximate price of ₹1250, these speakers are quite good.

KEYBOARD

Logitech G19 Gaming keyboard
Price: ₹10,995

SPECIFICATIONS

Programmable keys ..... 12; LCD Display
Resolution 320x240
Power ..... 2xUSB power

TEST CENTRE RATINGS (All Scores out of 10)

Features 9.0
Has its own LCD screen and an external power adapter. There are two extra columns of G-keys. The LCD screen supports applets

Performance 8.0
The mechanism for defining key bindings and macros for the G-keys is especially well done. We were disappointed by how games used the display.

Build quality 7.5
The build quality is quite good, with a few minor niggles

Value for money 6.0
At ₹10,995 it is certainly expensive.

WE SAY

7.0

The G19 is a costly keyboard that relies on software installed on your system for most of its magic. With the drivers installed, and on operating systems for which the driver is not available its special features don't function at all. The display is underutilised, especially by the very games it is meant to support.

ALSO SEE:
1) **Razer Destructor**
Digit, June 2010
2) **Logitech G9x**
Digit, July 2010

Bazaar mini

Quick insights from indepth tests

3D in Tegra 2 runours

According to a leaked NVIDIA slide, Tegra 2 is launching a 3D capable 1.25GHz mobile processor by Spring 2011

PSP2 to sport OLED screen?

Japanese newspaper Nikkei reported that Sony's new PlayStation portable PSP2 will sport an OLED screen and support 3G data

ROUTER

ASUS RT-N56U

Price: ₹9,500

SPECIFCATIONS

Operating Frequency... 2.4GHz & 5 GHz
Standards ..... 802.11 a/b/g/n
Interface ..... 1 Gigabit WAN, 4 Gigabit LAN, 2 USB

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.5
Dual-frequency band wireless router supporting 802.11 a/b/g/n, features Ai radar technology

Performance 7.0
The signal strength was better than Linksys WRT320N and Netgear WNDR3700 in all zones giving 43 percent in our standard test. DVD streaming was good.

Build quality 8.5
This is one beautiful router having sharp angular features and a textured finish.

Value for money 6.0
At Rs. 9500 this is on the higher side.

WE SAY

7.0

ASUS RT-N56U does not only look brilliant, but performs great as well. The real life performance scores were found to be better than last year's Best Performer Linksys WRT320N router in similar price range. We still feel Rs. 9500 is a high price to pay. Ideally we would ask you to wait till the prices drop by another Rs.1000

ALSO SEE:
1) **Agent 001 on Wi-Fi Routers**
Digit,

2) **Lynksys E2000**
Digit, December 2010, Pg-108

MOBILE PHONE

Micromax Q66 Eclipse

Price: ₹5,499

SPECIFCATIONS

Display 2.4-inch
Resolution ..... 320x240 pixels
Battery 850mAh
Camera ..... 2 MP

TEST CENTRE RATINGS (All Scores out of 10)

Features 6.5
Q66 Eclipse is a QWERTY slider phone in a clamshell form factor housing a 2MP camera.

Performance 6.5
Signal reception across all zones is good with no instances of dropped calls. Call clarity is not upto the mark. Trackball lacks precision and is slow in response.

Build quality 6.0
Q66 is quite heavy weighing about 118 grams. It is built like a tank with hard plastic.

Value for money 7.0
At a price tag of Rs. 5,499 the Q66 does not justify its worth due to the shortcomings.

WE SAY

6.5

Micromax Q66 eclipse is an affordable dual SIM smartphone with a stylish QWERTY keyboard that is marketed as its main selling point. However, we want better keypad ergonomics that can harness the true potential of the QWERTY keypad. The poor build quality and faulty mechanism of the SIM 2 latch is a major disappointment.

ALSO SEE:
1) **Intex V.Show IN8810**
www.thinkdigit.com (http://bit.ly/e9lJlc)

2) **XAGE M108**
Digit, December 2010, Pg-107

NETBOOK

Gateway LT23

Price: ₹22,700

SPECIFCATIONS

Processor ..... Intel Atom N455
RAM 2GB DDR3
Memory ..... 320 GB
Screen size 10.1-inch

TEST CENTRE RATINGS (All Scores out of 10)

Features 6.0
Patterned body, 2GB DDR3 RAM, 10.1-inch screen is an LED backlit LCD display @ 1024x600 pixels.

Performance 6.0
Its synthetic benchmark scores were at par with ASUS 1018P which houses a dual core N550 processor. Real life tests slower due to the single core.

Build quality 7.0
Sturdy build with a finger-print attracting glossy surfaces on both sides.

Value for money 5.0
At Rs. 22,700 this is slightly overpriced for a single core netbook.

WE SAY

6.0

Gateway LT23 is a decent performer as far as basic tasks are concerned. The LED backlit screen does have some backlight bleeding. For Rs. 22,700, the netbook is on the higher side as the dual core ASUS 1018P is available at Rs. 2000 less. The chicklet keyboard and trackpad are descent enough but in no way meant for people with fat fingers. For such a small screen it does not make sense to pay a premium for an LED screen. Recommended if the pricing is under Rs. 20,000.

MONITOR

ViewSonic VX2250wm

Price: ₹8,999

SPECIFCATIONS

Screen size 21.5-inch
Resolution 1920x1080
Backlight ..... LED backlit LCD
Response time 5ms

TEST CENTRE RATINGS (All Scores out of 10)

Features 6.0
LED backlit LCD monitor with a native resolution of 1080p. Has a touchsensitive control panel.

Performance 6.5
The VX2250wm gave a good contrast ration of 444.21 : 1 in our Spyder3Elite testing. We noticed a greenish blue tinge in the black though.

Build quality 7.0
The monitor has a nice black glossy bezel and transparent extension at the bottom edge

Value for money 7.0
It is a great buy for Rs. 8,999 for its performance.

WE SAY

6.5

Viewing HD movies was smooth, although we noticed minor banding in some solid colour scenes. Gaming output was quite good and there was hardly any lag while gaming. ViewSonic VX2250wm is a very good monitor for someone who is looking at setting up a mid-range rig. The contrast ratio is quite good leading to a great HD movie viewing experience. Its build quality is much better than Samsung's PX 2370MS. The pricing of Rs. 8,999 is comparitively affordable as compared to PX 2370MS's Rs. 15,000 plus.

4 million
That is the number of 3DS consoled Nintendo plans to sell before late March this year

Pay per channel
Tata Sky DTH has started offering the facility of paying per channel in its 'Make My Pack' scheme where you can choose and pay for channels of your choice than some preset boquet

CELLPHONE

Techcom T-21
Price: ₹1,500

SPECIFICATIONS

Display: 1.8-inch; Battery: 850 mAh, Talk-time: 2.5 to 3 hours, Standby-time: 150 to 170 hours

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.0**
Performance	**6.0**
Build Quality	**5.0**
Value for money	**7.0**

WE SAY

Bundled with features like personal data security, full length movie-playback, LED torch and 3.5 mm audio jack, the T-21 makes a strong statement. At ₹1,500, it makes a great buy, if you can overlook its shoddy keypad and poor ergonomics.

6.0

Wynncom Y100
Price: ₹4,495

SPECIFICATIONS

Dual SIM (GSM+GSM); Display: 3.0-inch resistive touch-screen; Battery: 1000mAh

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.0**
Performance	**6.5**
Build Quality	**6.5**
Value for money	**7.0**

WE SAY

The Wynncom Y100 is a feature-rich social-networking & multimedia smartphone that yields good value for money. At a price of ₹4,495, we have very little to bargain, except for the lack of Wi-Fi and a bundled memory card.

6.5

Intex IN 2060
Price: ₹2,499

SPECIFICATIONS

Dual SIM (GSM+GSM); Display: 2.0-inch, Screen resolution: 1280x960; Battery: 1020mAh

TEST CENTRE RATINGS (All Scores out of 10)

Features	**7.0**
Performance	**6.0**
Ease of use	**6.5**
Value for money	**7.5**

WE SAY

Intex IN2060 is a good low-end dual SIM budget cellphone with value added features like: embedded FM radio antenna, torchlight and a 1.3 MP camera. At a price of ₹2,499, it makes a good buy with a decent overall performance.

7.0

Akai F1
Price: ₹4,995

SPECIFICATIONS

Dual SIM (GSM-GSM); Display: 2.4 inch, 320 x 240 pixels, 65K colours; Camera : 3MP

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.0**
Performance	**5.5**
Build Quality	**6.0**
Value for money	**5.5**

WE SAY

A feature packed phone with loads of goodies like a pre-loaded NES emulator, apart from a decent camera, the Akai F1 is good enough to keep any budget phone user happy and satisfied. Ergonomics could have been better and so could the loudspeaker.

6.0

CELLPHONE

Intex IN8810
Price: ₹16,999

SPECIFICATIONS

Screen size : 3.2-inch; Battery : 1500mAh; Connectivity : Bluetooth, USB; Camera : 2MP

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.0**
Performance	**4.0**
Build Quality	**7.0**
Value for money	**6.0**

WE SAY

The IN8810's idea is good but the implementation needs to be better. Projector quality should be improved. Great battery life. Overall, a good product, but not good enough to make you want to go out and buy it at the steep price.

6.0

Nokia X5-01
Price: ₹10,499

SPECIFICATIONS

Camera : 5MP; Screen : 2.36-inch 320x240 pixel; Connectivity : Bluetooth, WiFi, USB

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.5**
Performance	**7.5**
Build Quality	**7.0**
Value for money	**6.5**

WE SAY

Battery performance was exceptional, with a fair bit of voice call and messaging use. The phone's 5 MP camera was also quite good, with decent colour accuracy and sharpness. 3G connectivity, good styling makes it a worthy buy.

7.0

PORTABLE DRIVE

Iomega eGo 1TB USB 3.0 drive
Price: ₹6,999

SPECIFICATIONS

Capacity : 1 TB; Interface : SuperSpeed USB 3.0; Dimensions : 131 x 93 x 26 mm; Weight : 0.23kg

TEST CENTRE RATINGS (All Scores out of 10)

Features	**8.0**
Performance	**7.5**
Build Quality	**7.0**
Value for money	**6.0**

WE SAY

Has a superspeed USB 3.0 interface and it is backward compatible. It gave write speeds of around 90 MB/s and read speeds of 92MB/s which is a good three times the jump of 28 MB/s write and 27 MB/s read speeds obtained on USB 2.0 ports. Decent pricing.

7.0

A-DATA NH 03
Price: ₹5,600

SPECIFICATIONS

Capacity : 1TB; Interface : USB 3.0; Rotational Speed : 7200rpm; Buffer Size : 16MB

TEST CENTRE RATINGS (All Scores out of 10)

Features	**6.0**
Performance	**8.0**
Build Quality	**7.5**
Value for money	**8.0**

WE SAY

Exceptional performance with fast data transfer speeds (upto 120MB/s. NH03 includes a 256-bit AES encryption software that will keep personal data safe. At ₹5,600 for 1TB, it makes for a great value for money data storage solution.

7.5

Angry Birds animation series

After capturing the mobile phone market, Rovio CEO has announced plans to turn Angry Brids into an animated series for broadcasting on TV

Log in to Flickr from Facebook

In order to make Yahoo's photo sharing site more accessible, Flickr now allows you to login via your Facebook account

HEADPHONES

ePro EP-V35 Headphones
Price: ₹210

SPECIFICATIONS

Impedance : 32 ohm; Frequency Response : 20-20,000 Hz; Sensitivity : 105dB

TEST CENTRE RATINGS (All Scores out of 10)

Features	4.0
Performance	3.0
Build Quality	4.0
Value for money	5.0

WE SAY

Sound quality is quite bad. In fact, it definitely seemed like the right driver was delivering lower output. Comfort and build quality were poor. Cloth sheathed wiring is the only plus. Zebronics Audiophile 5000 at ₹500 is a much better option.

4.0

Philips SHL5001
Price: ₹1,099

SPECIFICATIONS

Frequency Response : 10-28,000 Hz; Sensitivity : 106dB; Impedance : 32 ohm; Cable length : 1.2m

TEST CENTRE RATINGS (All Scores out of 10)

Features	5.0
Performance	6.0
Build Quality	7.0
Value for money	6.5

WE SAY

The Philips SHL5001 tries hard, but sound quality is not up to the mark. For a portable headphone at ₹1,099, its minor flaws do not really detract from its good build quality and ergonomic comfort. For bass enthusiasts, invest in in-ears.

6.0

NOTEBOOK SLEEVE

Philips Heat Protect Notebook Sleeve
Price: ₹2,099

SPECIFICATIONS

Note book dimension : upto 14.i-inch; Dimensions : 344 x 251 x 42 mm; Weight : 0.562kg

TEST CENTRE RATINGS (All Scores out of 10)

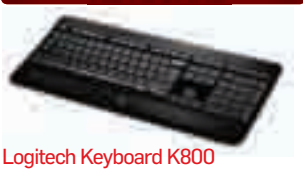
Features	5.0
Performance	5.0
Build Quality	9.0
Value for money	6.0

WE SAY

Designed to prevent you from heat when you have your notebook on your lap. Zipper compartment to store documents. Laptop tends to fit comfortably on the sleeve thus blocking its air intake vents, which heats up the laptop. Needed better implementation.

6.0

KEYBOARD



Logitech Keyboard K800
Price: ₹6,995

SPECIFICATIONS

Wireless keyboard, Backlit buttons,

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.0
Performance	6.5
Build Quality	7.0
Value for money	3.0

WE SAY

K800 gives a smooth typing experience with backlit keys. Unifying bluetooth USB dongle can connect up to six mice after making the necessary setting in the software provided. But we would not recommend it at the astronomical price of ₹6,995.

5.5

INTERNAL HARD DRIVE

Western Digital Caviar Green 3 TB drive
Price: ₹10,700

SPECIFICATIONS

Capacity : 3TB; Rotational speed : 5400rpm; Buffer size : 64MB; Interface : SATA 2

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.5
Performance	7.0
Build Quality	7.5
Value for money	6.0

WE SAY

An industry first with 3 TB suport, it requires GUID Partition Table. GPT supports 128 primary partitions as opposed to only four on MBR disks. Transfer speeds are better than Seagate Barracuda Green 2TB, but the drive is slightly more expensive.

7.0

Seagate Barracuda Green 2 TB
Price: ₹8,000

SPECIFICATIONS

Capacity : 2TB; Interface : SATA 2; Rotational Speed : 5900RPM; Buffer size : 32MB

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.5
Performance	5.5
Build Quality	7.5
Value for money	5.5

WE SAY

It supports the Advanced Format, a 4K-sector HDD format. It has a spindle speed of 5900RPM. Real life scores - 113MB/s and 98MB/s for sequential write and read were lower than the older Barracuda LP 2TB drive. The price of ₹8,000 is a bit steep.

6.0

ANTI VIRUS SOFTWARE

Panda Global Protection 2011
Price: ₹1,800

SPECIFICATIONS

Requirements OS: Windows 7 / Vista / XP CPU: 300 Mhz+ Ram: 512 (With TruPrevent)

TEST CENTRE RATINGS (All Scores out of 10)

Features	7.0
Performance	N/A*
Ease of use	6.0
Value for money	6.5

WE SAY

A top end offering it encompasses most of what you would expect from an antivirus suite such as parental control, strong heuristics, and crowd sourced lookups etc. Light on the system but the UI is not the friendliest we've seen.

6.5

Trend Micro Titanium Maximum Security 2011
Price: ₹1,200 (Single User)

SPECIFICATIONS

Min requirements OS: Windows 7 / Vista / XP CPU: 450 MHz + Ram: 256 MB +

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.5
Performance	N/A*
Ease of use	7.0
Value for money	6.5

WE SAY

The highest level offering from Trend Micro. The UI is quite user-friendly, but the suite is not very copious in terms of features - it lacks USB vaccine, firewall and some others we saw in Panda. 10 GB of online backup is a good addition.

6.5

*** Note:** The ever changing virus landscape negates performance testing based on limited virus samples

Handing over your document to somebody- Beware

Be careful about who you hand out your documents to

Kapil Rustagi
readersletters@thinkdigit.com

A consumer is enjoying variety of financial and digital services in the form of phones, gadgets, insurance policies, credit cards, and club memberships. Consumer identity has become a significant aspect of every transaction to be maintained by service providers. The Reserve Bank of India, the Telecom Regulatory Authority of India, the Insurance Regulatory Development Authority of India and various other regulatory bodies, time and again have emphasised on the KYC (Know your Customer) norms. The idea is not just to ascertain the ownership or identity but over the period, this exercise has gained significance from the national security point of view, fraud and scams. The identity of the actual consumer can be used by the other person with bad intentions. Any unauthorised use or presentation of your identity can be fatal and lead you in to the problems you never thought of.

Abhishek Gupta, a Delhi based legal professional got call from Police Station that there is complaint against him that he has been making filthy and abusive phone calls to someone. Surprised and shocked by the allegations, on visiting the police station he got to know the mobile no., from which the calls were made, was registered in his name. It was not just difficult but disgraceful for his professional image as well. On investigation it was found that SIM card was purchased by the insurance agent to whom Abhishek had provided photocopies of his identity documents for insurance policy. To be precise, documents given for purchase of insurance policy were misused by the agent to purchase SIM card in Abhishek's name which landed him in to problems and embarrassment.

What can be done to avoid such situations? Never give any crucial identity document unless you sign the document and without writing down the specific purpose and transactions it relates to. You must put appropriate questions and enquiries before giving such documents as to what is the requirement of document. You can also make some special sign on the documents so that you can recognise and differentiate your document in case of any dispute. Always ask for identity card of the person who is collecting your documents and write down relevant details if possible photocopy of his identity. You must cross sign the documents and write down the purpose in such a way that it should be visible if photocopied again by someone. And further you can also mention on the documents that the document would be having no sanctity for any purpose unless signed in original. So next time when it comes to handing over your documents to someone just be a little cautious.

We can help!
If you're facing a problem with your purchase, write to us at help@consumermate.com

COMPLAINTS RECEIVED

Mobile Phones

1. Samsung service centre is not replacing the leaking battery

Question: My Samsung dual SIM mobile c3212's battery is leaking. It has been just three months since purchase, but the service centers are refusing to change my mobile's battery. My mobile phone is giving certain other problems due to battery leakage such as hanging while in use. Please help me get a battery change or guide me with the procedue.

Kanika Gupta

Answer By Consumermate:
We can say with some experience that they are not going to change your battery without you taking some legal action in this regard. At this stage, write a registered letter to the company detailing your problems and wait for response of the company. If, there is no positive turn out then you can file a consumer complaint against them.

2. Laptop still with service station

Question: I brought the device on 23/08/2010 from BAlgo dhantoli Nagpur who is an authorised dealer of Compaq/ HP. The laptop was not working, and hence sent to the above company for repair but till date it has not been returned to me despite reminders and five personal visits to the place.

Ashish Laxman Gajwani

Answer By Consumermate:
The company in no circumstances can hold your laptop longer than is necessary. Write them a registered letter containing all the details of your complaint. In case, they do not come up with a solution then you may go ahead with complaint in the district forum. I hope some sense will prevail over them at the stage of notice itself and they will sort out the things. And, yes maintain a record of communications which may be necessary in future as evidence. As you have stated that your product is in warranty then you have a legal right to get the issues settled by the company.

Android to help create roads
The Bihar govt recently announced that it would use Android phones to ensure that construction of roads continues in a streamlined manner

Optimus Black
Mid-Jan LG released the new phone which features NOVA display technology for visibility in bright sunlight, and a slim 9.2mm profile

Android Expeditions

Agent 001 goes on an expedition to uncover the best Android phones in the market.

Agent 001
agent001@thinkdigit.com

The usual suspects at the Digit Office seemed to be a little depressed off late, particularly Sambhav, Nimish and Sid. "Why", you ask? Wouldn't you be too, if Rossi and Rudresh had been strutting around with their Android based Nexus One and Droid phones the whole of last month? Thanks to these rather envious tendencies geeks are susceptible to, everyone seems to have caught Android Fever. Sambhav and Sid have been Symbian guys for a long time. They looked bleakly at their E63 and N82 and dragged me into a "lets all buy Android Phones" expedition.

Motorola Quench XT5

Being my methodical self, I asked them what their expectations and price ranges were. Nimish wanted to look at mid-range offerings (between 10k to 15k) while Sambhav was keen on getting a cheap model if the phones on offer were not too horrible. Sid on the other hand wanted something jazzy to match up to his old N82 in terms of specs. He is also more likely to do keedas with his phone such as rooting and using other mods and hence wanted something highspeced - at least a 1GHz processor to make it as future proof as possible. Nimish wanted to try his hand at blackberry-style Qwertys from the Android world for a long time, and was wondering if any such models exist out there.

I started off with the most confusing and densely populated category - the midrange. What does the market landscape look like when it comes to Android phones from 10 to 15k? You have a couple of contenders worth considering - LG Optimus One P500, Samsung Galaxy 3, HTC Wildfire, Motorola QUENCH XT5, Motorola Charm, and the Samsung Galaxy 551. The first four go head on against one other since they belong to the same form factor (full touch) and are very closely spec-ed. The Wildfire has a screen that leaves a lot to be desired, and though the Motorola Quench XT5 is fast and well built both phones come at a slightly over the top price of about ₹13,500 thanks to their 5MP camera instead of 3.15MP of the others. The Galaxy 3 is a strong contender and the least expensive of the mid-rangers (mop around ₹11.6k). But of these the LG Optimus One emerges as the phone to recommend. It is the only one that comes with Android 2.2 (Froyo) out of the box. The other two phones in this price range were the Galaxy 551 and the Motorola Charm and are somewhat unique. The Galaxy 551 features a slideout Qwerty keypad and is available for an affordable ₹12,599 on websites such as www.flipkart.com. However the guys held off jumping at this one until it came to the test center for a full review. I got a chance to play with the next phone in this category, the Motorola Charm at a retail chain that priced it at ₹14,000. It is a blackberry-style Qwerty phone that runs on Android 2.1. The Trackpad at the back made for an interesting few minutes of fascinated fiddling around, but that's about it. Initially, figured Nimish being the serious kind will very easily take to it, but the squarish looks, pale screen, and an OS that seemed forcefit to the formfactor, made me not want to recommend this one.

Samsung Galaxy 3

Motorola Charm

LG Optimus One

HTC Desire

For Sambhav, who was looking at budget options, we considered some models like the Micromax A6 which is available at a market price of around ₹7000 and Samsung Galaxy 5. The Micromax A6 has a resistive screen and Samsung Galaxy 5 (MOP ₹8,900) seems to not be too bad, but I still urged Sambhav to up his budget and go for the safe bet - LG Optimus One.

Sid's requirement was a little higher than the 600 MHz performers we'd seen so far. In the 1GHz category the sky is the limit. You have the Milestone a.k.a Droid selling at around 23.5k or the superlative Samsung Galaxy S at around 27K, if you are willing to shell out that much. But often a price/performance mix is what we're looking for. In that case the recent drop in price of the HTC Desire made it the perfect choice at around 23K. It's got 1GHz Snapdragon, SLCD screen, 5MP camera with Flash, and is easily upgradable to Froyo. What more could you want? [Psst

Samsung Galaxy 551

- We were able to spot it on Flipkart.com for a cool ₹22,699]. All in all this was a fun expedition and a true testament to the rise in popularity of Android Phones in India.

SMS Bug fixed on Nexus S

An SMS messaging issue that plagued the Gingerbread OS of the Nexus S smartphone has been fixed after Google released a new Android 2.3.2 update to fix it

Xoom launching on Feb 17th

Motorola Xoom, the first Honeycomb Android 3.0 OS sporting tablet is set to be launched on February 17th with an approximate pricing of $700

Q Which is the best buy?

I'm looking for an all in one Desktop PC and I have narrowed down two models after a bit of research. The First one is the "Dell Inspiron One 2310 All-In-One Desktop PC" with 23 inch LED monitor, Intel core i5-540 processor, 4 GB RAM, 500 GB HDD and ATI mobility Raedon HD 5470 (1 GB). The second one is the "Lenovo Idea Centre B500 All-In-One Desktop PC" with 23 inch LED monitor, Intel core 2 Quad Q8400S processor, 4 GB RAM, 1 TB HDD, NVIDIA GeForce GT 240M & Remote Control. Please tell me which one will be the best buy ?

To accompany the all-in-one, I have also selected two printers:

1st one is "HP Deskjet 1050 printer (scan+copy+print)

2nd one is "EPSON stylus TX121 printer (scan+copy+print)

Please tell me which one will be the best buy ?

Please also suggest me a "Best UPS" for 1 hour/more power supply backup for 1 Desktop PC.

Gouranga Das

A Since you have asked for a Best Buy, I am assuming you are looking for a good configuration within a budget. Between the two desktop solutions that you have shortlisted, Dell Inspiron 2310 AIO has a better configuration with a newer Core i5-540 processor as compared to the older slightly lower clocked Q8400S. Graphics

Dell Inspiron One 2310

solutions are on the same level and Dell 2310 comes with only 500GB HDD, but the price difference between the two is around ₹10,000 with Dell 2310 priced at around ₹47,000. Apart from the 1TB hard disk there is nothing really compelling about the B500.

As for the printing solution, between the two you have shortlisted, HP DeskJet 1050 is priced around ₹3,000 and Epson Stylus TX121 is slightly more expensive. I would suggest the HP 1050 over TX121 for its comparatively economical cartridges and also the maximum optical scan resolution of 1200 dpi which is higher than that of TX121.

Your last question is a bit tricky. The 1 hour condition that you have levied, catapults your recommended solution into the server/enterprise space with a 1000VA / 700 Watts UPS such as the SURT1000XLI from APC that requires a separate battery pack. This configuration will probably cost you more than half the price of your PC. I'd suggest why not go in for an inverter then?

Q Solution for a tight budget

I was thinking of buying a graphics card which has DirectX 11 capability. Please suggest me a good card that runs cool. Both nVidia and ATI are my options

XFX HD5450

(minimum 512 mb). My motherboard is Gigabyte GA-G41MT-ES2L. My budget is within Rs. 4000 and I won't be stretching it!

Kaustav Banerjee

A Nice question there Kaustav. Now, there are a lot of cards in that range, but it is difficult to suggest an NVIDIA card which is DX11 capable. You will have to extend your budget for a DX11 NVIDIA card. However when you look at ATI options, XFX HD5450 is a card that is within your budget, is DX11 capable and has a 1 GB of RAM. Happy gaming!

Q In search of visual glory

I am using 17" LG Flatron E700SH monitor for many years. Now I would like to buy a 20" or 22" LED back lit LCD monitor with In-plane switching (IPS) technology. Please suggest me a good one with lowest price.

C Nagaraj

A Dell ST2220T is a 21.5-inch LED backlit LCD monitor having an IPS panel. It has a native full 1080p

Dell ST2220T

resolution and the monitor also supports multi-touch. Its priced around ₹14,000.

Q Rig suggestion

I want to upgrade my Computer which should ideally have the following kinds of components.

Intel i3 or i5 processor with a compatible motherboard respectively

DDR3 Ram, 1 TB Hard Disk, DVD Writer

I am not into gaming so don't want any graphics card. My preliminary budget is ₹20000. I can rise raise it to ₹25000. Please suggest good configuration and pricing as well. Thanks in advance.

Suvendu Chowdhury

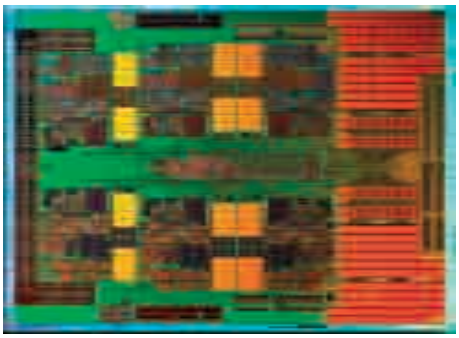
A Core i5 rig under ₹20,000 is difficult but you can build a Core i3 rig as follows.

Intel Core i3-540 (₹6565); Motherboard : Intel DH55TC(₹4750); Corsair 2GB DDR3 @ 1333MHz RAM(₹1125); Seagate 1TB 7200.12(₹2,700) and LG H55N(₹900). Add in a monitor, cabinet and keyboard+mouse kit accordingly and you should be able to manage it at just about ₹25,000.

digit KILLER RIGS

everything you will ever need to build your own PC. whatever your budget.

PRIMARY COMPONENTS



PROCESSOR

- AMD Athlon II X2 245 / ₹2,625
- AMD Athlon II X4 635 / ₹4,675
- Phenom X4 945 / ₹6,200
- Intel Core i5 2500K / ₹12,000
- Intel Core i7 960 / ₹26,000

HARD DRIVE

- Seagate 500 GB 7200.11 ₹1,800
- Seagate 500 GB 7200.11 / ₹1,800
- Seagate 1 TB 7200.12 / ₹2,700
- Seagate 1 TB 7200.12 / ₹2,700
- WD Black Edition 1 TB x2 / ₹8,800

MOTHERBOARD

- ASUS M2N68-AM Plus / ₹2,150
- Gigabyte MA880GM-UD2H / ₹4,500
- ASUS M4A88TD-M EVO/ ₹6,200
- Intel DP67BG / ₹8,500
- ASUS P6T Deluxe V2 / ₹19,000

GRAPHICS CARD

- None
- XFX GeForce GT240 / ₹4,800
- ASUS ATi Radeon HD 5750 / ₹7,200
- XFX Radeon HD 5850 / ₹13,000
- ZOTAC GeForce GTX 470 x 2 (SLI) / ₹31,500

MONITOR

- Samsung B2030N / ₹6,500
- AOC 2236Vw / ₹7,700
- AOC 2236Vw / ₹7,700
- ViewSonic VX2250wm / ₹8,999
- BenQ G2420HD / ₹11,000

RAM

- 2 x 1 GB DDR2 800 MHz (Corsair) / ₹2,000
- 2 x 2 GB DDR3 1333 MHz (Corsair) / ₹2,250
- 2 x 2 GB DDR3 1333 MHz (Corsair) / ₹2,250
- 2 x 2 GB DDR3 1333 MHz (Corsair) / ₹2,220
- 3 x 2 GB Kingston HyperX T1 2,000 MHz / ₹10,000

- **Basic rig = ₹19,240**
- **Multimedia cum gaming rig = ₹31,275**
- **High-end Multimedia / Gaming rig = ₹43,825**
- **High-end gaming PC = ₹61,039**
- **Ultra high-end PC / Gaming rig = ₹1,50,895**

SECONDARY COMPONENTS

CABINET

- NZXT Gamma Classic / ₹1,900
- NZXT Gamma Classic / ₹1,900
- Cooler Master Chassis Gladiator / ₹3,725
- Cooler Master Chassis Selio / ₹4,200
- Cooler Master Chassis Scout / ₹6,000

POWER SUPPLY

- VIP 350 Watts / ₹800
- VIP 400W Gold / ₹800
- Corsair VX450 / ₹3,450
- Corsair VX450 / ₹3,450
- Corsair HX850W / ₹9,400

MOUSE

- Logitech 3 button scroll / ₹300
- Logitech 3 button scroll / ₹300
- Logitech G1 / ₹1,100
- Logitech MX518 / ₹1,200
- Logitech G5 / ₹3,195

SPEAKER

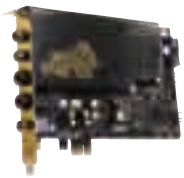
- None
- Altec Lansing VS2621 / ₹1,450
- Altec Lansing VS2621 / ₹1,450
- Altec Lansing VS2621 / ₹1,450
- Altec Lansing MX 6021E / ₹7,350

OPTICAL DRIVE

- LG H55N / ₹900
- LG H55N / ₹900
- LG H55N / ₹900
- LG H55N / ₹900
- LG WH10LS30 / ₹10,800

SOUND CARD

- None
- None
- None
- None
- ASUS Xonar DX / ₹4,200



KEYBOARD

- Logitech KB-104 / ₹275
- Logitech KB-104 / ₹275
- Logitech KB-200 / ₹450
- Logitech KB-200 / ₹450
- Logitech G15 / ₹4,200

MISCELLANEOUS

TABLET

- None
- iBall Design Tablet PF1209 / ₹8,100
- Wacom Intuos4 Medium (PTK-640) / ₹21,280

HEADPHONES

- None
- Sennheiser HD 201 / ₹1,125
- Sennheiser HD 280 Pro / ₹5,180

PRINTING SOLUTIONS

- Canon PIXMA iP1980 / ₹1,650
- Canon PIXMA iP3680 / ₹4,950
- Epson B-500DN / ₹20,580

MOUSEPAD

- None
- Razer Goliathus Speed (Oversized) / ₹1,300
- Everglide Titan / ₹1,450
- Steel Series QCK Heavy / ₹2,000

GAMING CONTROLLERS

- MS Xbox 360 Controller / ₹1,125
- Logitech Momo / ₹5,200
- Logitech G27 / ₹15,000

POWER PROTECTION

- None
- Numeric 600 VA / ₹1,440
- Numeric 1 KVA / ₹3,925

Hacker selling info for a price

Data security firm Imperva has discovered that a hacker is selling confidential information to military, government and educational sites

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SPEND SMART

The latest peripheral prices updated every month.

Processors

Brand	Model	Market Price (₹)	Socket/Interface	NUMBER OF CORES	CLOCK SPEED
AMD	Athlon II X2 255	3320	AM3	2	3.10 GHz
AMD	Athlon II X3 440	3650	AM3	3	3.00 GHz
AMD	Phenom II X2 550	4415	AM3	2	3.10 GHz
AMD	Athlon II X4 630	5255	AM3	4	2.80 GHz
AMD	Athlon II X4 635	5565	AM3	4	2.90 GHz
AMD	Phenom II X4 945	6985	AM3	4	3.00 GHz
AMD	Phenom II X4 925	7245	AM3	4	2.80 GHz
AMD	Phenom II X6 1055T	9845	AM3	6	2.80 GHz
AMD	Phenom II X6 1075T	10475	AM3	6	3.00 GHz
Intel	Core i3-530	5565	LGA 1156	2	2.93 GHz
Intel	Core 2 Duo E2500	5985	LGA 775	2	2.93 GHz
Intel	Core i3-540	6565	LGA 1156	2	3.06 GHz
Intel	Core i5-650	9455	LGA 1156	2	3.20 GHz
Intel	Core i5-660	10675	LGA 1156	2	3.33 GHz
Intel	Core 2 Quad Q9505	12025	LGA 775	4	2.83 GHz
Intel	Core 2 Quad Q9400	13125	LGA 775	4	2.66 GHz
Intel	Core 2 Quad Q9550	14720	LGA 775	4	2.83 GHz
Intel	Core i7-930	15125	LGA 1366	4	2.80 GHz
Intel	Core i7-870	15225	LGA 1156	4	2.93 GHz
Intel	Core i7-950	16175	LGA 1366	4	3.06 GHz
Intel	Core i7-970	46625	LGA 1366	6	3.20 GHz
Intel	Core i7-980X	54495	LGA 1366	6	3.33 GHz

Motherboards – AMD

Brand	Model	Market Price (₹)	Socket/Interface	Chipset	PCI X16/PCI/SATA/USB
Asus	M4A87TD/USB3	5700	AM3	AMD 870 + AMD SB850	0 | 6 | 2
Asus	M4N75TD	6515	AM3	NVIDIA nForce 750a SLI	2 | 6 | 9
Asus	M4A785D-M PRO	4650	AM3	AMD 785G + AMD SB710	Y | Y | Y
Asus	M4A78T-E	7090	AM3	AMD 790GX + SB750	Y | Y | Y
Asus	M4A89GTD PRO/USB3	9295	AM3	AMD 890GX + AMD SB850	Y | Y | Y
Biostar	TA880GB+	6515	AM3	AMD 880G + AMD SB710	Y | Y | Y
Biostar	TA890GXE	7800	AM3	AMD 890GX + AMD SB850	N | Y | Y
ECS	A885GM-A2	4205	AM3	AMD 880G + AMD SB850	Y | Y | N
ECS	A785GM-M	4805	AM3	AMD 785G + AMD SB710	Y | Y | Y
ECS	A890GXM-A	7495	AM3	AMD 890GX + AMD SB850	Y | Y | Y
Gigabyte	GA-890GPA-UD3H	8715	AM3	AMD 890GX + AMD SB850	Y | Y | Y
Gigabyte	GA-MA790FXT-UD5P	12890	AM3	AMD 790FX + AMD SB750	Y | N | N
MSI	880GMA-E45	5565	AM3	AMD 880G + AMD SB850	Y | Y | Y
MSI	890GXM-G65	7565	AM3	AMD 890GX + AMD SB850	Y | Y | Y

Motherboards – Intel

Brand	Model	Market Price (₹)	Socket/Interface	Chipset	PCI X16/PCI/SATA/USB
Asus	P5QL-CM	4230	LGA 775	Intel G43	N | Y | N
Asus	P7H55-M	4780	LGA 1156	Intel H55 + No	N | N | Y
Asus	P6T DELUXE V2	18510	LGA 1366	Intel X58 + Intel ICH10R	N | N | N
Asus	Rampage III Extreme	23600	LGA 1366	Intel X58 + Intel ICH10R	N | N | N
Asus	Maximus III Extreme	24180	LGA 1156	Intel P55 + No	N | N | N
Gigabyte	GA-H55M-S2	3575	LGA 1156	Intel H55 Express	2 | 6 | 12
Gigabyte	GA-EP43T-S3L	5855	LGA 775	Intel P43 Express + Intel ICH10	2 | 6 | 12
Gigabyte	GA-P55-USB3	7145	LGA 1156	Intel P55 Express	3 | 6 | 14
Gigabyte	GA-P55M-USB3	9135	LGA 1156	Intel P55	2 | 8 | 8
Gigabyte	GA-X58A-UD7	19955	LGA 1366	Intel X58 Express + Intel ICH10R	1 | 6 | 10
MSI	BIG BANG-XPOWER	18565	LGA 1366	Intel X58 + Intel ICH10R	N | N | N
MSI	P55M-GD45	5,640	LGA 1156	Intel P55	2/1/6/10

G-Slate in a music video

LG's G-Slate which was shown at CES was spotted in a Korean music video with a dual camera array on the rear side fuelling rumours of 3D support

Monitors

Brand	Model	Market Price (₹)	SCREEN SIZE	D-SUB | DVI | HDMI
Acer	P196HQL	6210	18.5 in.	Y | N | N
Acer	V203H	6305	20 in.	Y | N | N
Acer	B243H	14285	24 in.	Y | N | N
Acer	D240H	14705	24 in.	Y | N | N
Acer	S243HL	14965	24 in.	Y | N | N
Acer	T231H	16275	23 in.	Y | N | N
Acer	D241H	18220	24 in.	Y | N | N
Acer	B273H	19955	27 in.	Y | N | N
AOC	1619Sw	4570	16 in.	Y | N | N
AOC	1620Sw	4835	15.6 in.	Y | N | N
AOC	931SN	5620	18.5 in.	Y | N | N
AOC	F19	5725	18.5 in.	Y | N | N
AOC	e941sw	6095	18.5 in.	Y | N | N
AOC	e936Swa	6315	18.5 in.	Y | N | N
AOC	177Sa	6315	17 in.	Y | N | N
AOC	2036Sa	6425	20 in.	Y | N | N
AOC	e2043Fs	6825	20 in.	Y | N | N
AOC	V19+	8035	19 in.	Y | N | N
AOC	416V	21005	24 in.	Y | N | N
Asus	VH162DE	4490	15.6 in.	Y | N | N
Asus	VH197D	5985	18.5 in.	Y | N | N
Asus	VB175D	5985	17 in.	Y | N | N
Asus	VH202D	6750	20 in.	Y | N | N
Asus	PW191BK	8270	19 in.	Y | N | N
Asus	MS202N	9005	20 in.	Y | N | N
Asus	MS202D	9005	20 in.	Y | N | N
Asus	MS238H	12705	23 in.	Y | N | N
Asus	MS246H	13545	23.6 in.	Y | N | N
Asus	VH242H	15545	23.6 in.	Y | N | N
Asus	VG236H	21005	23 in.	Y | N | N
Asus	VK266H	25990	25.5 in.	Y | N | N

Monitors

Brand	Model	Market Price (₹)	SCREEN SIZE	D-SUB | DVI | HDMI
BenQ	G702AD	6250	17 in.	Y | N | N
BenQ	V920	6935	18.5 in.	Y | N | N
BenQ	G2220HD	7985	21.5 in.	Y | N | N
BenQ	V2210	10870	21.5 in.	Y | N | N
BenQ	G2420HD	12185	24 in.	Y | N | N
BenQ	V2200 Eco	13335	21.5 in.	Y | N | N
BenQ	E2420HD	14285	24 in.	Y | N | N
BenQ	V2400 ECO	17435	24 in.	Y | N | N
BENQ	M2700HD	24785	27 in.	Y | N | N
DELL	U2311H	18640	23 in.	Y | N | N
DELL	U2410	36225	24 in.	Y | N | N
DELL	U2711	54340	27 in.	Y | N | N
HP	ZR22w	21265	21.5 in.	Y | N | N
HP	ZR24w	31295	24 in.	Y | N | N
HP	LP2065	32820	20 in.	Y | N | N
LG	W1643C	4885	15 in.	Y | N | N
Microstar	CH-586	2625	15 in.	Y | N | N
Microstar	CH-786	2995	17 in.	Y | N | N
Philips	192E2SB2	5515	18.5 in.	Y | N | N
Philips	191EL1SB	5805	19 in.	Y | N | N
Philips	202E1SB	6670	20 in.	Y | N | N
Philips	19S1SB	8085	19 in.	Y | N | N
Philips	241E1SB	11025	24 in.	Y | N | N
Samsung	B1930n	6250	18.5 in.	Y | N | N
Samsung	B2030N	6670	20 in.	Y | N | N
Samsung	B2230N	8505	21.5 in.	Y | N | N
Samsung	B2330H	11395	23 in.	Y | N | N
Samsung	2233SW	11555	21.5 in.	Y | N | N
Samsung	P2370MS	14965	23 in.	Y | N | N
ViewSonic	VX2250WM	8925	22 in.	Y | N | N
ViewSonic	VX2439wm	14175	24 in.	Y | N | N

Media Players

Brand	Model	Price (₹)	Remote	Built-In Speakers	Display Size	Colour	Memory Capacity
Asus	OPlay Air HDP-R3	8405	Standard Remote	No	Any	Black	No
Mitashi	TFD 7607	4835	No	No	7.0 in.	Black	No
Buffalo	LT-V100	7355	Standard Remote	No	No	Black	No
IOGEAR	GMD2025U120	19295	Slim Remote	No	Any	Green	Any
JBL	MX 100	23835	Slim Remote	Yes	No	Black	No
JBL	MAS 100	37805	Slim Remote	Yes	2-line	Black	No
Mitashi	DVB-317	1895	Standard Remote	No	Any	Black	No
Mitashi	TFD 7607	4835	No	No	7.0 in.	Black	No
Philips	DVP3310	2145	Slim Remote	NO	Any	Black	Any
Philips	DVP3316	2205	Slim Remote	NO	Any	Black	Any
Philips	AZ302	2205	Standard Remote	Yes	Any	Black	Any
Philips	DVP3236	2205	Slim Remote	No	Any	Black	Any
Philips	DVP3336	3045	Slim Remote	NO	Any	Black	Any
Philips	DVP3568	3255	Standard Remote	Yes	No	Black	No
Philips	DVP3996/3368	3420	Slim Remote	No	Any	Black	Any
Philips	AZ1837	3555	Slim remote	Yes	Any	Black	Any
Philips	HTS 3011	6615	Standard Remote	Yes	No	Black	No
Philips	HTS3152	7720	Standard Remote	Yes	No	Black	No
Philips	HTS3520	11655	Standard Remote	Yes	No	Black	No
Philips	HTS 3265	10475	Standard Remote	Yes	No	Black	No
Philips	HTS 3156	10475	Standard Remote	Yes	No	Black	No
Philips	HTS 3565	14335	Standard Remote	Yes	No	Black	No
Philips	HTS 3371	14335	Standard Remote	Yes	No	Black	No
Philips	HTS3571	15435	Standard Remote	Yes	No	Black	No
Philips	HTS5120	25360	Standard Remote	Yes	No	Black	No
Philips	HTS9140	61745	Standard Remote	Yes	No	Black	No
Philips	MCD263	11910	Slim remote	Yes	Any	Black	Any
Philips	MCD355	14775	Slim remote	Yes	Any	Black	Any
Samsung	HW-C450	15595	Standard Remote	Yes	Any	Black	No
Samsung	HT-C453	15595	Standard Remote	Yes	Any	Black	No
Samsung	DVD-C6900	22685	Standard Remote	No	Any	Black	No
Samsung	HT-C555	22685	Standard Remote	Yes	Any	Black	No
Samsung	HT-C755W	38675	Standard Remote	Yes	Any	Black	No
Touchmate	TM-DVDP740	7355	No	No	7 in.	Black	Any
Touchmate	TM-DVDB790	10135	Slim remote	Yes	7 in.	Black	Any

106 **Create Firefox add-ons**
Develop a simple Twitter add-on using the new Firefox add-on SDK

A success story
Rajendra S. Pawar and Vijay K. Thadani shared the same dorm room in the campus of Indian Institute of Technology, Delhi in 1981.They decided to join hands and started NIIT the same year.

The Mantra for Career in Web Development

You don't qualify as a geek by merely supporting thick-framed glasses, cardigans and T-shirts with rather nerdy references to "geek-chic." It is a highly competitive world, where you have to deliver in order to make a mark for yourself.

Anoop Verma
readersletters@thinkdigit.com

Being the most visible part of the global IT industry, web development is certainly a promising career option. According to the Bureau of Labour Statistics in USA, web development is going to be the fastest growing occupation over the next decade. The computer scientists and database administrators occupation is expected to grow at a rate that is much faster than the average for all other occupations. The computer industry is fully globalised so we can expect similar growth figures for India. There is no fixed path that you can take in order to become a successful web developer. Some people attend classes and take degree or certification courses, while others can be completely self-taught. A fresher can easily expect a salary in the range of ₹1 lakh to 5 lakh per annum and there exists excellent chances for growth depending on the performance. It is possible for a fresher to become a senior level developer in 5 to 7 years, in which case his salary could even go up to 10 to 15 lakh per annum or more than that," says Manisha Jaggi, In charge of NIIT centre at Cannaught Place, New Delhi. "Computer professionals holding B.Sc degrees are offered much better pay packages. However, for freelance professions the initial income may depend upon their business acumen and level of contacts."

Many students prefer to branch out as a freelancer. Becoming a freelancer and starting your own web development business can be as simple as setting up a web site and advertising your capabilities through social networking sites. If you are able to convince a sufficient number of clients to contract out their development work to you, then you can flourish. But if development is your sole means of support, then things can get pretty scary at times. Freelancers have to be prepared for going through the vagaries of ups and downs. On some months you will have more work than you can probably handle and on others you might have nothing at all.

Skills that you must know

A developer's task is not confined to merely putting up an interface on the Internet; the scope of this term is really large. The myriad jobs that a web developer might be expected to perform include database-management, web writing, editing, computer programming, web programming, graphic designing, 2 D Animations and SEO/SEM. If you choose to join a corporation, your job title might actually depend on the exact nature of the job that you are performing in office. You could have the title of Computer Scientist or Database Administrator; you might also be known as a Web Designer, Web Developer, Web Writer or Web Producer. The skills that you need to master in order to fulfil the requirements of these jobs is equally vast. "These days the basic skills that the companies look for is Flash, Dreamweaver, HTML," says Anju Dalal of Arena. "Knowledge of scripting languages is also necessary."

To be a web developer, the most basic thing that you need to know is HTML. Just because the market is deluged with WYSIWYG programs, it doesn't mean you can afford to forget HTML. This is the basic building block of any web page, so it is in your interest to master it. The second thing that you need to master is CSS, which is what powers the myriad web designs and determines

how the page will look finally. As long as you don't know CSS, you won't be able to design state of the art web sites and this will surely make your work unattractive to the discerning set of clients out there. JavaScript is the primary interactive element of a web site, and you have to be comfortable with it. Once you have mastered JavaScript, you will be able to create Ajax web sites. Then there comes the aspect of programming of web pages. A good web developer should also be well versed in PHP, ASP, Java, Perl, or C++. It will be easier for you to master these technologies if you have a mathematics background.

For someone who is looking for a simple web designing opportunity, it might not be necessary to learn MySQL Database, but for developers it is essential to learn how to build and maintain a database. Currently MySQL Database is most popular on the web. Flash, as we all know, brings a great deal of charm to any web site. Both a web designer and a web developer needs to master Flash in order to create vibrant web sites. The knowledge of Web Server Management is also important for a developer or a designer. This is because web sites and databases run on web servers, whose functioning you must understand in order to fix any glitch that may crop up. Finally, you have to have the necessary skills for SEO/SEM related tasks. The Internet is awfully cluttered; it is home to more than 11.5 billion web pages. The task of making your website stand out in a cyberspace can be achieved with right kind of SEO/SEM inputs.

The two major career options for aspiring Web Developers are:

1. They can continue with Developmental role, in which case they would be doing hands on coding.
2. They can enter the field of Software Architecture, where there is less of Developmental tasks and more of complex, high-level design.

The premier IT institutes in India are not teaching SEO/SEM directly, but a web developer is still expected to be good at such tasks. The craft of a SEO professional is mostly devoted to adding crucial keywords so that whenever search for those keywords is made on a search engine, the web site will show up at the top of the list.

Options for training

Major IT institutes like NIIT, Aptech and others serve as the most important recruiting ground for tech companies on lookout for web developers. Many aspiring web developers these days go in for the 3-year B.Sc. Degree course in Computer Applications, which is being offered by Aptech in collaboration with Manonmaniam Sundaranar University of Tamil Nadu. Students who have completed their HSC or 10+2, are eligible to join this course. The technology being taught include, Data Management, SQL, C++, XML, C#, .NET, Java, Linux, eCommerce, ASP.NET and few others. After this course is completed a student should have the technical know-how to carry out all sorts of web development related tasks, there is a creative side to web development as well and that is something that can come only through personal ingenuity and experience.

The other big brand in IT related educational services in the country, NIIT, too offers different kinds of certification courses, which can be eminently helpful for anyone who desires to pursue a web development career. The GNIIT course being offered by this institute is quite popular amongst students. Anyone who has passed XII with a minimum score of more than 60 per cent is eligible to apply. The course is divided into 6 semesters. In the third year, students are given on the job training, where they work in an NIIT recommended company and start earning a stipend, which can range from ₹8000 to ₹15000. The average stipend that a GNIIT student earns is around ₹12,000.

NIIT is offering certification level courses in Java, .NET, software testing, Database Programs, Open Source Programs, Storage Programs and Adobe Programs. Out of these the Adobe Programs might be of particular interest to students who want to focus on web designing, things like development of web sites using Flash and Dreamweaver, and many other interesting arts are taught.

The programming languages web developers currently use include:

1. Java, C++, C#. VB.net are often utilised on the server side. Scripting languages like Pearl, VBScript, PHP are also popular.
2. JavaScript, DOM, HTML, CSS are the popular technologies currently being used on the client side.
3. For database related tasks, MySQL, Oracle, Microsoft SQL are mostly in use. XML is also used for document data transfer.

Students at Aptech can go in for the Graphics and Web Design course (GWD), a 1-year program with 2 semesters, during which a thorough grounding in Graphics design and Web design can be expected. Students who have completed their 10+2 are eligible to take the course. The GWD course covers graphics, illustrations, composition and layout for print design, web design, web graphics and animation. The software related subjects covered in this course include Adobe Photoshop, Adobe Illustrator, CorelDRAW, HTML, Dreamweaver, Flash and JavaScript.

Making a mark as a web developer

It is necessary for a student to do a comprehensive research before actually joining an institute. There is no point in spending time and money in an institute where the education, infrastructure or the post-course placement services are not be up to the mark. An efficient web developer is not only someone who is well versed in latest technology, he is also someone who is capable of executing projects, communicating with clients, and he should be capable of coming up with ingenious out of the box solutions for most intricate problems.

"Sky is the limit for developers who are capable of doing a good job," says Anju Dalal of Arena. "A good fresher can go up the employment ladder in a matter of six months. The companies are always on look out for efficient web developers."

Extensions on older versions
You can force some of the extensions you write using the Add-On SDK to work on older versions of Firefox

Electrolysis project
Mozilla has a project called Electrolysis which aims to move Firefox to the Google Chrome model of different processes for each tab

Creating your own Firefox add-on using the new SDK

Kshitij Sobti
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Firefox 4 promises to be even easier for Add-On developers to dive into, thanks to the new Firefox Add-On SDK. In this article you will take your first steps in developing a simple addon to post to Twitter.

Firefox is an incredibly extensible application, not only because there are a large number of add-ons available for the browser, but also because the add-ons for Firefox can make much deeper and more extensive changes to it.

Its extensibility emerges from the way the browser is built. Firefox's GUI is not coded in C / ++, but is instead written in an XML dialect called XUL (XML User Interface Language). A large part of Firefox's functionality is written in JavaScript, and the browser is styled using and extended form of CSS.

This XUL + CSS + JavaScript code runs on a framework called XULRunner that renders the XUL code just as a browser would run HTML code. The browser is then running on the same JavaScript engine which web applications will be running on. At its very core XULRunner is a collection of cross-platform components that includes an XUL and HTML renderer, a networking library, a SQLite database etc. These components can be used by the application running on XULRunner to provide functionality. In fact Firefox, Thunderbird, and Songbird, three very different applications, all run on Firefox!

Applications that extend Firefox or any XULRunner-based application overlay their XUL code over that of the application, and are thus able to modify any part of the application's UI and functionality.

Unfortunately, developing add-ons or applications is not as simple as it might seem. XULRunner unlike other runtimes such as Adobe AIR, and Titanium was not designed to build applications on, and is this not that well documented. There are few IDEs for developing XULRunner applications. To make matters worse, changes made to Firefox in between versions can stop add-ons written for an older version from working in a newer version.

Now let's move on to how you can use the Add-On SDK to build extensions for Firefox 4.0 today. We will be creating an extension that will modify the Firefox context menu by adding and option to tweet the text you have selected. This won't use the proper API for Twitter since that will involve authentication which will be out of the scope of this article. Instead we will use a simpler system that will open Twitter with the text to tweet entered in the tweet box.

Getting started with the Add-On SDK

The first step of course is to get the Add-On SDK itself and extract it to a convenient place (the SDK works on Windows Linux and Mac OSX). You will also need Python installed to use the SDK. Install it now from the Digit DVD if you haven't already.

Since the Add-On SDK is made up of command line tools, you should launch the terminal in your OS. Now you will need to move to the directory in which you have the Add-On SDK installed ("`C:\addonsdk`" for example) and type "`bin\activate`" ("`source bin/activate`" on Linux) to run the activate command which will take you into the Add-On SDK environment.

The command you will be using most of all will be '`cfx`'. The cfx tool will automatically find and use any Firefox instance installed for testing extensions. It might launch Firefox 3.6 if you have that installed along with Firefox 4, so it's better to specify the particular version of Firefox to use in the command-line. How exactly, we will cover in a bit.

At this point, it helps to run 'cfx docs' from the command line. This will have the Add-On SDK launch a local server for the documentation, and will open the same in a browser.

Create a directory for your add-on (we'll assume you named it "myaddon"), and enter it in the Add-On SDK environment, then type "cfx init" to initialise the basic structure of the addon in that directory.

The manifest

Before we start with the actual code for the extension, let us first look at the manifest that will contain the metadata (extension name, author name, version, license, description etc.).

Inside the folder you created for you addon, you will find a file called 'package.json'. This is a plain text file that should look something like this:

Here is a sample "package.json" file:

```
{
 "name": "myaddon",
   "fullName": "myaddon",
   "description": "a basic add-on",
   "author": "",
   "license": "MPL 1.1/GPL 2.0/LGPL 2.1",
   "version": "0.1"
}
```

The contents of this file are self explanatory, however do take note of the format, which is something called JSON (JavaScript Object Notation). These are just the basic metadata parameters for the file, there are many others. Not all parameters are necessary, and there is one important parameter "`id`" that is missing, but will be generated later.

We will now begin with the actual coding for the extension.

The main module

The Add-On SDK is very modular, and uses a popular module standard called CommonJS. Any modules you

create for your extension will thus be compatible with other frameworks.

A file called "main.js" inside the "lib" directory will be where most of your code will lie. It should already have been created by the "`cfx init`" command you used earlier, and will contain some basic code. You can remove this code to get a clean slate.

Since we wish to modify the context menu for Firefox, we need to import the Jatpack Core module that offers that functionality. Add the following line to your 'main.js' file:

```
var contextMenu =
require("context-menu");
```

This will let us use the context menu features defined in the "context-menu" module by referencing them through the contextMenu variable.

We will also be using the tabs API, so include that with:

```
var tabs = require("tabs");
```

Now let us create a context menu item. The following is the complete code that we will explain a little later:

```
var postTwitter  = contextMenu.
Item({
  label: "Tweet",
  context: contextMenu.Selec-
tionContext(),
  contentScript: 'on("click",
function (node, data) {' +
               '  var selec-
tion = document.getSelection().
toString();'+
               '
postMessage(selection);' +
               '});',
  onMessage: function (selected-
Text) {
       tabs.open("http://
twitter.com/?status="+encodeURIC
omponent(selectedText));
  }
 });
```

We are creating a new context menu item with a label of Tweet", and three other parameters called context, contentScript, onMessage which will explain next.

How the code works

The context menu, quite obviously, is context-sensitive. What this means is, that the options which appear on the context menu will vary depending on the item you right-click on. We need to specify a context for our menu item to appear in, and Firefox will automatically manage which item to display and when.

This context can be specified in multiple ways:

- **contextMenu.SelectorContext(selector):** The context menu will be displayed on all elements that match the specified CSS selector.
- **contextMenu.SelectionContext():** The context menu will be displayed if there is a selection.
- **contextMenu.URLContext(matchPattern):** The context menu will be displayed if the URL of the page matches the specified pattern
- **contextMenu.PageContext():** Displayed everywhere on the page.

You can even specify an array of contexts, in which case the menu will be displayed if all contexts match. You can even have a custom context, where you code the function that can perform any number of checks before displaying the item in the menu.

An explanation of what is going on here is in order.

The contentScript is the part of the code that is handled by the context menu. This code is kept separate from the main code of the add-on and is specified in a string – although you could load it from a file.

The reason for keeping the code that is executed by the context menu separate from the rest of the add-on code is to make it simpler in the future to move to a model where the add-on, the browser UI, and the content are all running in different processes. This is similar to how Google Chrome works, where each tab is a different process, each add-on is a different process and the browser itself has its own process. Firefox too will embrace this model and when it does add-ons that are developed using the Add-On SDK will continue working.

Since the code running in the context menu is separate from the rest, it cannot directly access variables from the main add-on so how do we tell our add-on that it has been clicked and see a reaction? We use the postMessage function that can be used to send strings and objects (with some restrictions) from the context menu to the add-on. In our case, we are posting the text selected in the document using document.getSelection().toString().

On the other end, our add-on eagerly awaits a message from the context menu with the onMessage function. This function receives the message we sent from the context menu and can use it to perform any action.

When it receives the message, in this case it opens a new tab with the URL:

```
"http://twitter.com/?status="+e
ncodeURIComponent(selectedText)
```

The encodeURIComponent function converts our selection to a form that can be safely passed from a URL. This status text is then appended to the URL "`http://twitter.com/?status=`" that can be used to specify a tweet message while opening the Twitter home page.

You will need to be already logged into Twitter for this. If you are logged in this will open the Twitter home page with the selected text already entered in the tweet box so you can go ahead and click the "Tweet" button to post it.

You can now run "`cfx run`" from the command line to launch this extension in your browser. When you run the "cfx run" command for the first time, it will simply modify your 'package.json' file to include a unique id; you will have to run it a second time to launch it in your browser.

Note that by default the "`cfx`" command might launch the the wrong version of Firefox (Firefox 3.6) which will fail to enable this extension. In this case you should specify which Firefox version to use by providing its path in the commandline:

```
cfx run -b C:\path\to\firefox4\
firefox.exe
OR     crx run --binary=C:\path\
to\firefox4\firefox.exe
```

You can see how simple developing extensions for Firefox is about to become! With just a few lines of code we have a functional extension of some utility. Currently the Add-On SDK is not even complete, it is the first beta version! The best part is all extensions using this SDK will get features such as restart-less installation, future compatibility and a consistency in appearance and function without any extra effort.

Promises to be a wacky fun-fest of the highest order

Badri "Badjag" Narayan
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Let me get this out right away. Fighting games and I just don't get along very well. I realized this a long time ago while playing the Mortal Kombat series in DOS. I could've blamed it on the PC's unintuitive controls, but I'd be fooling myself, because I faced equally dismal results while playing Street Fighter II in the neighbourhood's seedy video game parlour. Cut to the recent past, and fate once again brought me into contact with my nemesis through Dead or Alive 4 for the X360. I thought I was finally doing well at a fighting game, until a non-gamer colleague came along, challenged me to a versus match, and proceeded to beat me into submission simply by pressing as many buttons as quickly as possible. So much for second chances.

Third time lucky?

Considering the above, I should be the last person to be tasked with reviewing a fighting game, but destiny ordained that I was told about the MARVEL VS. CAPCOM 3 (MVC3) preview code at Milestone's office when I went there for the Killzone 3 preview. Not wanting to pass up the chance of making some extra money, I agreed immediately and set to work.

I have to admit, as far as concepts go, the MVC series ranks right at the top of the fighting genre. Most other games have invented characters based on a single theme who then might or might not capture the public's fancy, but you just cannot go wrong with taking established characters. After all, who wouldn't want to see Spider-Man's butt kicked outta the arena by the likes of Ryu? It is for this reason that games like MVC3 and Super Smash Bros are pure genius when it comes to concepts.

It is therefore surprising to know that it took ten long years for Capcom to follow up the success of MVC2. The good news is that in this period of time, several new characters have been added to both marques, thus presenting a wider choice of fighters. The developers have taken full advantage of this and picked some rather creative, if unconventional players.

The best example of this selection is Amaterasu, from Okami. That's right, you can now pit a wolf (albeit a magical one) against your hero or villain of choice! Another spectacular pick is Sir Arthur the midget knight from the classic Ghosts N Goblins. On the Marvel side of things, there's M.O.D.O.K., aka Mental Organism Designed Only for Killing, who (or which) is essentially a giant pumpkin-shaped head fitted on a floating platform. In other words, American retardedness meets Jap craziness. Thankfully, this is actually a good thing.

Granted, this variety makes for some rather challenging gameplay mechanics. Both Ammy and Arthur, being of non-standard sizes, make for difficult targets to hit. Similarly, M.O.D.O.K. has the ability to stay afloat high up in the air, out of reach of his opponent's standard attacks. However, the diverse strategies that can now be employed depending on your choice of heroes can only lead to interesting results, and this unusual array of fighters is a strong plus for the game. More importantly, it shows that MVC doesn't take itself too seriously, a prerequisite for having fun in any game.

Triple tag mayhem

The preview was a barebones build that put me straight into the action. No intro movie or menu of any sort; just select your characters and fight. The only game mode available was MVC's traditional triple-tag team match against the CPU, with almost the full roster of players that the final release will have.

Before I chose my warriors though, I had to select between

Developer: Capcom
Publisher: Capcom
Platforms: PS3 X360
Release Date: 18th February 2011
Website: www.marvelvscapcom3.com

a Normal and Simple game setting. As the name suggests, Simple mode is equivalent to the Easy difficulty level, wherein special moves are easy to pull off and the game is more forgiving. For obvious reasons, this was the one I chose.

A few seconds into the fight and something wondrous happened: I was actually enjoying a fighting game! The Simple mode removed the need to fill up bars or perform complex manoeuvres to carry out special attacks, so I was able to execute amazing combos and aerial assaults, as well as call my team members on standby to perform assisted moves. The result was a flurry of intense action from both my side and the CPU's, which when combined with the spectacular cel-shaded graphics and awesome sound effects resulted in something of a sensory overload. There's just so much happening at so frenetic a pace that your brain stops functioning and your nervous reflex system takes over.

The preview only allowed for three rounds of fighting before ending the game. At the start and end of each round, the combatants taunt each other, which gets old really quickly. However, special taunts appear when traditional enemies face off in a showdown, such as Chris Redfield and Albert Wesker from Resident Evil.

Victory, at last!

Having thoroughly enjoyed the first run through the preview (and owning the CPU in the process), I set about trying different combinations of fighters, as well as the Normal difficulty mode. It became quickly apparent that MVC3 was not merely a button-masher: while I was able to score 50-hit combos in Simple mode, veterans of MVC2 have been known to score combos that go into the hundreds, so my n00b skills were barely scratching the surface of what this game is potentially capable of. With a huge number of special attacks, aerial assaults, and team assists, it's evident that there exists a massive depth of gameplay in the title for hardcore fighting fans. The fact that MVC3 is flexible enough to provide an equal amount of fun for unskilled players like me speaks volumes about its excellent design.

The fun factor comes to the fore through MVC3's special attacks. While you have the standard "serious" attacks such as Iron Man's Ion Beam, you also have the likes of Tron Bonne, a character from Megaman who pilots a robot. One of her special attacks is to step out of her cockpit and bonk her opponent on the head with a toy gun. Another special attack involves one of her tiny robot creations that follow her around, suddenly blowing up in size and hitting the enemy with a giant rubber hammer.

In other words, MVC3 is a cross between a traditional fighting game on steroids and an insane Tom & Jerry cartoon.

The upshot of all this is that I ended up playing until my thumbs hurt — a title that I had initially approached with some trepidation and much scepticism. Let's not forget the two-player mode, which is bound to be a hell of a lot more fun. In conclusion, I'd have to say this is one title I'd seriously consider buying. Oh, and Capcom being Capcom, you can expect to see the most inane of plots used to justify this mixing of worlds, along with plenty of videos that look incredibly good but make absolutely no sense. This, in case you're wondering, is a good thing.

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KILLZONE 3

We get to spend some time with Guerrilla's latest Sci-Fi shooter, and walk away (somewhat) impressed.

Badri "Badjag" Narayan
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Now that the madness of the peak gaming season with its rush of pre-Christmas releases is behind us, the industry is in the midst of a small breather before the onslaught begins anew in the weeks to come. On the frontlines of this fresh spring wave of AAA titles is Sony's mascot in the shooter segment Killzone 3 (K3) competing with Epic's Bulletstorm, both scheduled to release practically on the same day.

Being a PlayStation exclusive, the Killzone series has pretty much been Sony's answer to Microsoft's Halo and Nintendo's— oh wait, the Wii only has Mario, tennis and fishing games. Still, regardless of what PS fanboys might think, Killzone has generally been regarded as the poor man's Halo, mostly due to the giant marketing blitz that precedes each Halo iteration.

Into the zone

In all honesty, I've sampled very little of the Killzone series, having played only the demo level of the very first game. What I liked about it was its polish and the added hook of getting to play the same level through three different perspectives: the wham-bam heavy gunner, standard heroic soldier, and sneaky sniper. This was followed by Killzone 2, positioned by Sony as the game that would launch its (then) brand-new PS3. Despite being caught out in the initial scam of passing off a pre-rendered cinematic as actual real-time gameplay during its E3 presentation, Guerrilla recovered from the embarrassment and multiple delays to bring out a title that was praised by many. Hence, when the opportunity arose to play a special preview of the upcoming sequel, I accepted right away to see what the hype was all about, and headed over to Milestone Interactive's HQ to run the preview on its debug console.

One of the special features of K3 is its support of the newly-launched PS Move controller, and I was excited to see how it would unshackle gamers from the limitations of the DUAL SHOCK pad. In a major disappointment though, no Move controllers were available with Milestone at the time, and so I was unable to test what was otherwise one of the USPs of the game. Another major feature that remained untested was K3's co-op mode, since it would have been too awkward to go around the office asking if someone wanted to play with me.

Game: Killzone 3
Developer: Guerrilla Games
Publisher: Sony Computer Entertainment
Platforms: PS3
Release Date: 25nd February 2011

This being a preview, the menu had the barest functionality, with single-player, co-op, and options being the only choices available — sadly, no online play in this build. Going to the Options screen to set up the controls revealed the first glaring flaw in the game: a lack of alternate control configurations. The default (and only) config had assigned the fire button to <R1>, whereas any gamer worth his D-pad knows that it should ideally be <R2> — hey, it's called a trigger button for a reason, right?! The only way to rectify this was to enable the swapping of the <R1> and <R1> buttons through the game's Advanced Settings menu; hardly something that could be called intuitive. Hopefully the final release will fix this oversight.

Cliché central

K3 continues the intrepid adventures of Narville, Sev, and Rico, leaders of Alpha Squad, a part of the Legion special forces unit. Continuing from where K2 ended, the team finds itself isolated on the Helghan home planet, cut off from the rest of its force. The crisis deepens as our heroes discover that a massive Helghast counterattack on their home planet of Vekta is imminent, and they are all that stand in the way of total Helghast domination. Meanwhile, the plot gets murkier due to a power struggle within the Helghast high command.

It didn't take more than a minute into the level intro

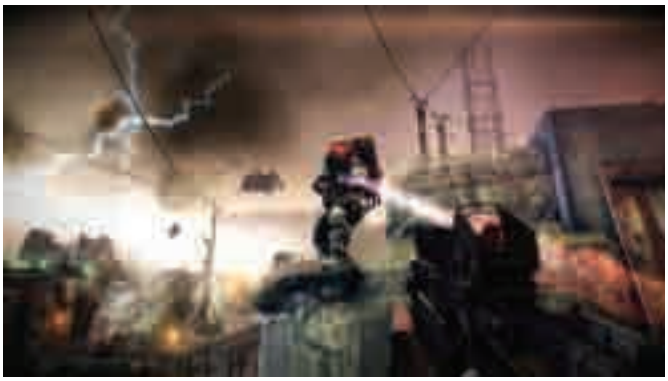
cutscene to figure out that the hackneyed plot is an insult to the intelligence. The lead characters are as one-dimensional as you can get, with Narville being the largely incompetent captain (albeit with good intentions), Rico playing the tough-as-nails-and-as-dumb soldier whose primary job is to hurl abuses at every opportunity, while Sev is the doodh-se-dhula hero type. K3 reportedly boasts 70+ minutes of cinematics, ostensibly to provide a "movie-like experience". If that's true, it's succeeded beautifully — provided you had a B-grade action flick in mind, that is.

A bigger problem with having cutscenes ever so often is that they disturb the "flow" of the game. For example, in the level that I played, one section had Sev travelling up a freight elevator, whereupon a cutscene jumps in showing a group of Elite Shock Troopers zeroing in on him for a round of hand-to-hand combat. It would have been nice to have a minigame

at this point where you fight the bunch unarmed, say by using a combination of punches, kicks, and God of War styled press-the-indicated-button mechanics. Instead, the game chooses to show him despatching the baddies as you merely sit back and watch. Good to look at, yes, and "cinematic" too, but rather pointless. Someone needs to inform Guerilla that all great Action games are about maximizing the action.

MAWLed to death

The preview itself features a single level somewhere along the K3 plotline, wherein you face off against a giant war machine called the MAWLR, à la the Scarab in Halo 3. The level starts off by putting you in the middle of a few battles against entrenched Higs to warm you up before the MAWLR makes its grand entrance. To assist you in fighting this titanic contraption, you get to use one of the game's new weapons, the WASP multi-rocket launcher, which fires three homing ordinance in a single round. The objective is to outflank



the automaton and target its weak points with the WASP while it is distracted by your squad's tanks.

This mini-boss battle makes for an engaging experience. You have to constantly dodge the massive robot's barrage of rockets and mortar, take out its machine gun turrets before they cut you to shreds, and yet find time to shoot at the MAWLR's glass jaw when it's exposed for a few seconds. It's a tough battle, but you're helped along by the unlimited ammo dispenser crates nearby. Though I died several times during the fight, the frequent checkpoints ensured that I didn't have to replay more than a couple of minutes each time. This is a definite plus.

After weakening the MAWLR somewhat, the next target was to get to higher ground in a bid to finish it off. Encountering more Higs along the way, a new weapon was introduced to help me wipe the floor with them: the Minigun. As any Action fan will testify, few things in life are as satisfying as wielding a minigun to wreak havoc on your enemies. If you don't believe me, watch Arnold use one on the police amassed outside the Cyberdyne HQ in Terminator 2. After I dealt with the Higs, I walked over to their machine gun emplacements and grabbed the LMG off the tripod to give the soldiers waiting ahead a taste of their own medicine. Allowing moves like this adds to the enjoyment for sure.

The final phase of the battle involved hopping onto the Intruder dropship waiting for me at the top of the structure, then raining death from above onto the MAWLR. This section played out like a standard rail shooter, where all I had to do was point my gun at the AA defences and take them out while the computer navigated the dropship. Nothing we haven't seen before.

Final thoughts

The 30 minutes or so spent on the preview level were rather enjoyable. The top-notch visuals and sound added to the atmosphere, but you can expect nothing less from a AAA title. The downside is that K3 seems to offer nothing new that other shooters haven't had before. In fact, you could practically take Call of Duty and place it in a Sci-Fi setting, and the results wouldn't be very different from K3.

Based on the preview level, I'd say that Killzone 3 is worth buying for Action junkies and for its co-op player mode, since it's hard to mess that up. Another good reason to buy it would be for the chance to play it with the Move controller if you've bought one, but that will depend to a great extent on how well it's integrated with the game mechanics. If you've had your fill playing the likes of COD and Halo though, this is one title you can safely skip.

The game will be available in three editions: the standard box pack; a Collector's Edition in "SteelBook" packaging (basically, a box that has a steel finish) that includes extra goodies such as a downloadable soundtrack, XMB theme, and extra multiplayer maps; and an extra special Helghast Edition that includes all of the above plus a Helghast Cloaked Marksman action figure, and packages it into a life-size Helghast replica helmet. unfortunately it's not wearable, because that would be fricking cool — you could have scared the hell out of other motorists while riding around on your scooter. No idea on the Indian or international pricing as of this writing, but the box pack is expected to retail for $60 (₹3,000 approx), while the Helghast Edition might sell for a whopping $130 (₹6,500 approx).

Abhinav Lal
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Gleaming orange, tearing air, I cut right to avoid an oncoming truck on the two-lane black top winding through an ochre landscape, blip the handbrake, and point my McLaren F1 at the apex, hold down the nitrous and drift 200 metres before straightening into a gate that serves as my shortcut to the other side of the next curve, fusing sand onto the once slick rubber of my squealing tires.

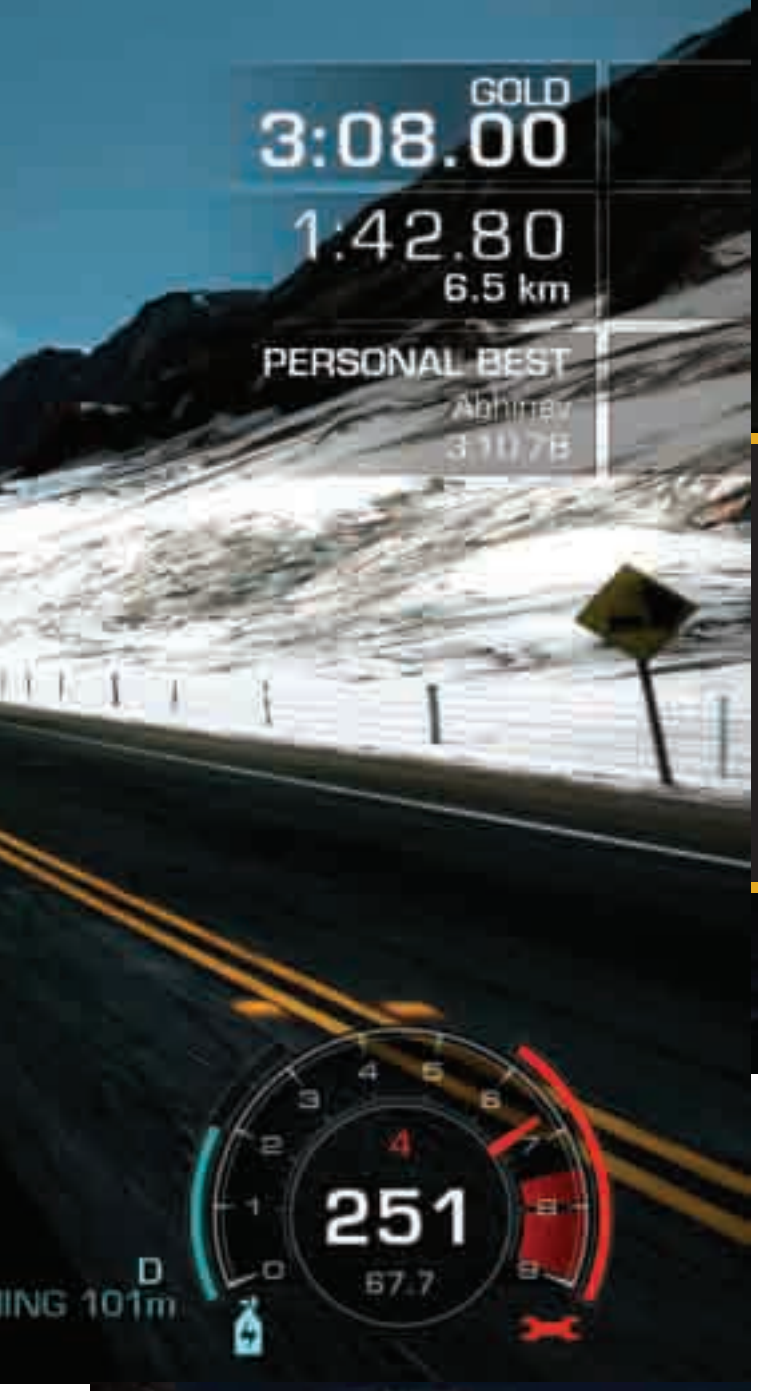
Sounds familiar...Nope it's not Burnout, no matter what the imagery wants you to believe. Those are real performance and super cars licensed by their manufacturers, just converted into toys using pixels and physics modeling. Engineered to accept my inputs, and to create an atmosphere that enables unparalleled feats of my driving ability across the verisimilitude of topographies Seacrest County seems to offer. Need For Speed: Hot Pursuit from Criterion Games – flashing lights in my rear view mirror, and all that.

While you can't chain burnouts together, you sure can pull off moves just as spectacular as in the Burnout series, controlling drifts while swerving between lanes at 234 kmph, with physics benevolently forgiving you for hitting nitrous too early on the exits. Do it while turning, and though you won't actually gain speed like Burnout, or spin out like Underground 2, you maintain a nice and steady speed through the corner instead – no wheelspins here.

A good way to describe the game's controls and gameplay – very forgiving and stunningly fun – simplifying everything down till your fearless coming to grips with the game's artificial physics is all it takes. You will be doing all the tricks in no time, gaining nitrous without thinking.

The graphics of the game are very realistic, enough so that you don't feel too stunned looking around, though the motion blur in turbo mode is something to behold. The cars are exquisitely modeled, and the scenery is flawless, with barely any superfluous elements like lens flares and smoke to distract. No over-saturation, no funky ShowTime.

The game is set in Seacrest County, a place that offers



Pros

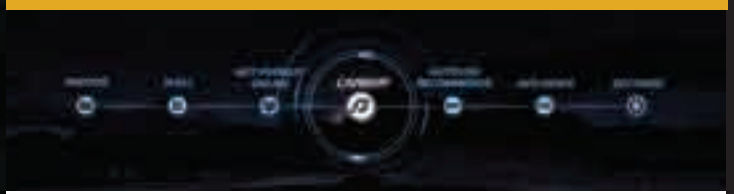
- Credible, non-jazzy graphics
- Glorious cars
- Top-notch multiplayer

Cons

- Unrealistic, simplistic controls
- No customization
- No performance tuning

Verdict

Buy! This is no racing simulation, but a non-stop powered-up ride that tests your gutsiest moves from Career to Multiplayer as a racer, and hones your seek and destroy instincts as a cop.



various environments and climates, from mountains to beachfronts, deserts to hills. The cars are possibly the best part of the game, with such beauties as the Bugatti Veyron Grand Sport to the McLaren F1. There are plenty of cars to unlock, but no real garage to speak of – you get to pick from unlocked cars for the relevant series (Performance, Super, Hyper, etc.,).

You can choose any car you've unlocked for 'Free Roam'ing the 100+ miles of the county's road, but don't hope to chase down racers or do some running yourself in Single Player mode, that's only for Multiplayer.

The player has seven different types of events to choose from in Career mode: Race, Duel (between racers), Preview (time trial of a yet unlocked car), Gauntlet (time trial with cops chasing you), Hot Pursuit, Time Trial, Rapid Response (cop time trial), and Interceptor (one felon vs. one cop), the last two of which are meant to be played as a cop.

Racers in Hot Pursuit and Gauntlet events have access to up to 4 weapons to be used 2-3 times within an event against rivals and cops – including EMP, Jammer, Spike Strip, and Turbo. While Turbo is defensive, you can still ram cops or rivals with it. As a cop, your weapons are mostly the same, though you can also unleash road blocks and helicopters (to drop spike strips ahead of the leader).

NFSHP's Autolog is a new feature that will soon see the light of day again in Shift Unleashed. It's your racing social networking platform, allowing you share your victories and photos, compete against friends on a track-by-track leaderboard, or keep up with the latest news from NFS. This in itself is perhaps not too exciting if you aren't the social type, but worth trying, you might just find yourself excited about beating your friend's best time on a particular track, or showing off pictures of a particularly spectacular takedown.

While Autolog is all about being connected, you can enjoy the game offline as well. Do that, become good, and then dialup – NFSHP's multiplayer is its ultimate selling point, there is nothing better than playing cops vs racers with real egos at work.

Intel VS NVIDIA
Intel will pay Nvidia $1.5 billion to end all legal hostilities between the two companies

Hackers cheat Wall street
A side channel attack on high frequency trading networks on Wall Street could get a hacker millions in seconds

Here comes the strange!

Each year the CES witnesses some major product releases by various consumer electronics giants, but the CES isn't only about big product launches and the fanfare associated with them. Along with the multinationals you would often find some uncanny developers with their equally uncanny and weird designs. Here's a look at some of the most weird gadgets from CES 2011:

T-Pain Microphone
The T-Pain microphone autotunes your voice, so you no longer have to use auto-tune software for that hip-hop artist like sound. Just sing into the mic and enjoy auto-tune at its best. Available in fall 2011 for $40

Ion's iCade for iPad
Your very own mini arcade machine, just pop-in the iPad and play classic arcade games using the joystick and buttons on it. Atari is partnering with Ion to release more games by May. Available for $99

Hi Dow Massager
Stick this pair of vibrating hands to the sore spots on your body and let the miniature hands give you a relaxing massage. This is one of the most weirdest massagers we've ever seen. So are you ready for some relaxation?

Casio Prizm Calculator
Here's a perfect blend of a calculator and a smart phone.

With an app style interface and 16 bit colours this is not the yesteryear device you used in eighth grade. Best part is, it can be hacked to play some cool games. Available for $128

Orbotix Sphero
Control this crazy ball bot with your iPhone or Android phone. Available for under $100 by year end the Orbotix is a fun pass-time you can have. Don't miss the boost button on this little ball.

eTime Home Endoscope
For those who always wished for a handy home use endoscope, get ready for this one, the eTime endoscope allows you to peek inside other people's mouth and ears. It has live PC video feed and doubles up as a microscope.

3 hilarious sites on the Internet

When it comes to having a few lollies each a day, nothing beats these three sites. This is where we get our inspiration from, LOL just kidding!

The Oatmeal
The entire site is written, drawn and conceived by Matthew Inman. He writes around subjects like zombies, tyrannosaurus and English grammar. Check it out for the funny one liners. Most of his work is also available as posters to get some offline laughs as well.

CollegeHumor
This is for the average college going nerd, the site pokes fun at how a typical college sophomore would behave in various situations. A number of writers and designers work on its funny articles. The must read pieces here are often Facebook conversations between famous characters like Mario and Luigi.

The Onion
Making fun of the recent happenings in today's pop culture is the Onion which proudly calls itself America's Finest news network. A satire news organization the Onion gives its views and comments on both real and fictional incidents. A movie by the same name was released a few years ago.

Cataclysm hits 4.7 million

The latest installment of World of Warcraft has sold more than 4.7 million copies in just one month

Nintendo 3DS shows off 3D games

Nintendo is planning to deck up its handheld gaming device the 3DS with an augmented playing cards game

How we unwind

Minor Swing

We tap our feet to The Dixieland Gipsyband's Minor Swing this time and especially when we feel drained out and fatigued. Their music charges us up. Check it out on bit.ly/fkH5ZK and you too would be feeling fresh and alive.

Scott Pilgrim vs. the World

This time we checked out Scott Pilgrim vs. the world. This movie is something else, its got tons of video game references and awesome alternative soundtrack. Can be the best movie out there.

RHCP Live at Slane Castle

Red Hot Chili Peppers performed at the Slane Castle, Ireland back in 2003 and we got our hands on its DVD release. The concert easily had more than a lakh people in attendance and RHCP gave an equally mind boggling performance.

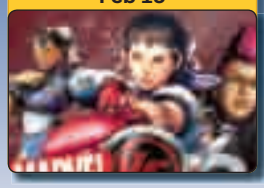
DIARY

So.. another month comes to an end, it was a fun month and now that we are small team we all stepped into each shoes to get things done *for example* Siddarth and Nash helped out in the Test Center, Nimish bit off more than he could chew and finished hoards of motherboards along with other products and Sambhav tried his hand at some editing. *So..* a new member has joined our team Kanchan, she'd be helping with DIY's and Test Center stuff. By now if you are wondering about the italicized so's and for example then its a habit which we all have picked up from Robert who uses lots of so's and *for example* while talking. *So..* we all do that now..Anyway the past month was fun also because we went for our office picnic to a nearby beach and had a gala time there. That's all for this time..

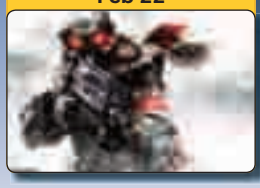
The most awaited games of 2011

Here are the release dates to some of the most anticipated games this year

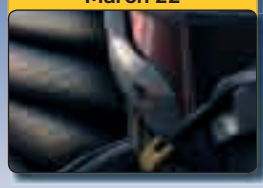
Marvel vs Capcom 3
Feb 15



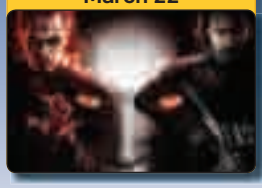
Killzone 3
Feb 22



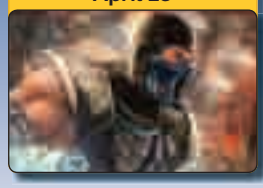
Crysis 2
March 22



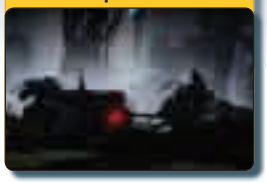
FEAR 3
March 22



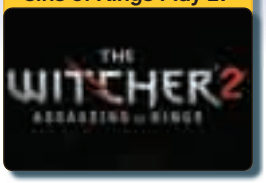
Mortal Kombat
April 19



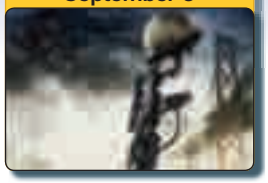
Portal 2
April 20



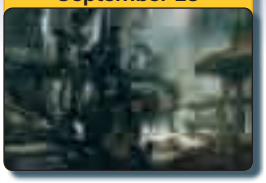
The Witcher 2: Assassins of Kings May 17



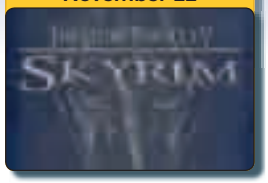
Resistance 3
September 6



Rage
September 13



Elder Scrolls V: Skyrim
November 11



THE DIGIT COMIC

Facebook richer by a billion dollars
Facebook has raised $1.5 billion from investors,valuing the world's most popular social networking site at $50bn

HTC Smartphone profit rises
Smartphone maker HTC saw net profits rise 160% during the October to December quarter as compared to last year

RIA Conference

The conference presents a unique opportunity to connect with the experts from Adobe, the leaders in Rich Internet Applications, and other practitioners like you who are responsible for building both core enterprise applications and ancillary applications.

Conference dates and venues
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Bangalore - 18th Feb
Mumbai - 25th Feb

Register Now

Registration fees will be waived off for first 100 qualified registrations to the conference. So register now to avail the early-bird offer. Limited seats only.

To register, visit thinkdigit.com/RIA

SSD*Now* challenge

Solid-state-drive (SSD) is the new buzz word in the storage market. SSDs are all-ready to replace HDDs, given the technology they use. **Answer 5 simple questions about SSDs and win exciting prizes.** The first three winners get **30GB SSD*Now*, 16GB SSD*Now* and 8 GB SSD*Now*.** Also, get an opportunity to win **16GB and 8GB Pen Drives** as consolation prizes.

Visit: **bit.ly/ssd*now*** to get your SSD Drive

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Community of software programmers who enjoy writing code and want to grow their career in software development

App Fiesta

Digit GIVES YOU A CHANCE TO DRIVE HOME A Ford Figo OR A Bajaj Pulsar! SIMPLY INSTALL Intel AppUp FROM THE Omega DVD AND TAKE THE Online quiz visit bit.ly/appfiesta

Hurry ! contest ends on 22 February 2011

Bubble ball vs. Angry birds

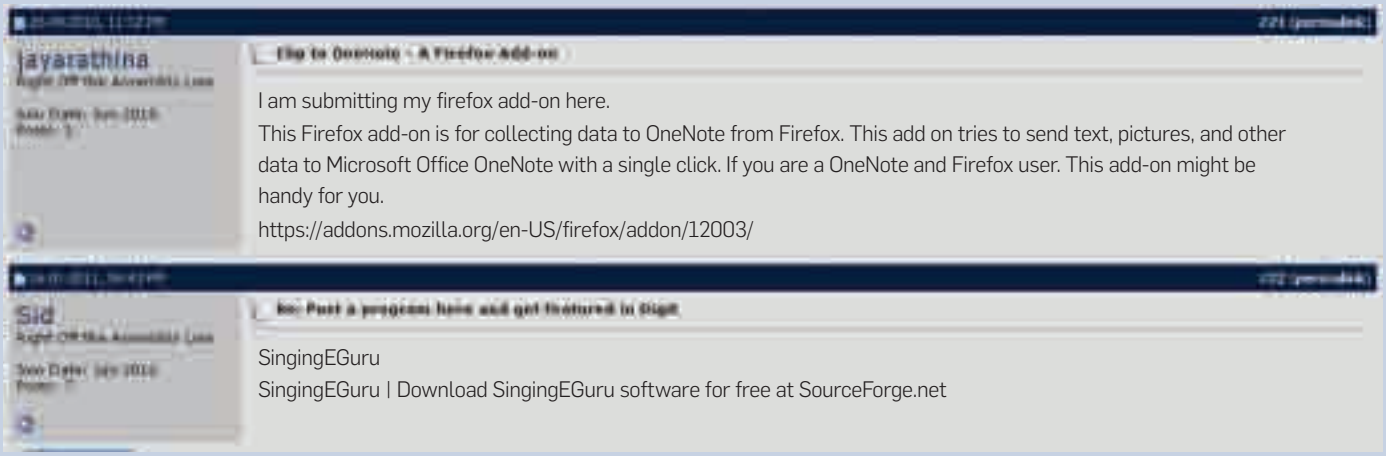
14 year old Robert Nay of Spain has created Bubble ball, a physics based game which has become the most downloaded game on iTunes beating Angry birds

Mind your email manners

Thomas Blaikie, author of a guide to modern manners has written a few more this time for emails. Visit the following link bbc.in/dWZJQg to know more

Head over to www.thinkdigit.com/forum, for some of the best discussions, buying advice, and user reviews. Of course, you will meet like minded (and not so like-minded) geeks, leading to some of the most constructive arguments you'll ever have.

If you love to code and want to see your name down here then head over to bit.ly/fA5orW and submit your applications and get featured on the community page! Two of our readers submitted their apps, one is a Firefox add-on, you can download it from the link given below. Go to Sourgeforge.net to download the second app called SingingEGuru.



Feb 2011

digit events

Digit is taking interactivity to a new level, and will be organising events every month. You get to meet and interact with people that you wouldn't in the normal course of your life — industry experts, Team Digit, and other readers with similar interests. Stay updated and stay ahead of the curve by looking for this page in every month's magazine.

1 Webinar

Webinar on Android

FEBRUARY 19
TIME: 1700 HRS

The whole world seems to be smitten by Android, everyone's talking about it so we decided to give you our side of the story. From cupcake to gingerbread Android has come a long way. We'll answer some of the most frequently asked questions like is it the most future proof OS? Demystify the Android App store for you and finish it off with buying advice on Android phones across all price ranges. So mark the date on your calender and don't miss it!

For details on upcoming webinars and to view past webinars, visit thinkdigit.com/webinars

Tech surprise is a series of comic strips created by our reader Tanmay Dasgupta, here are the first two episodes:

The Essential LCD/ LED TV Lexicon

An LED TV is nothing but an LCD which uses LED back-lighting. TV manufactures advertise this display as LED which is not true LED display but is often called so. The basic difference between the two is that an LED TV uses light emitting diodes for the backlighting, where as an LCD uses florescent lamps as backlights. There are two types of LED back-lighting Edge lit and full array.

Edge lit LED – refers to the placements of LEDs along the edges of an LCD display. Due to such arrangements the edges might appear to be brighter than the rest of the picture. Edge lit panels are slimmer in dimensions but can also cause bleeding of light around the edges.

Full Array – refers to placements of LEDs which are arranged in a full matrix or array, this gives uniform and even back-lighting.

Bleeding – LCDs block out unwanted light coming from their backlit source, bleeding occurs when the back-light behind the LCD surface is not 100% blocked. This results to some areas appearing lighter than the rest especially on a dark or black background. Almost all LCDs suffer some amount of bleeding.

Response time – Latency or response rate means how quickly the screen can refresh a video image. It basically means the rate at which the LCD can display moving images. It is generally measured in milli seconds (ms) and you should look for TVs with faster response time.

Refresh rate – The number of times your LCD screen refreshes itself per second is known as refresh rate giving you clear, uninterrupted image. Generally the refresh rate is measured in Hertz (Hz). A refresh rate of 120 or 240 Hz refers to the number of times a frame is drawn each second.

Ambilight – Invented by Phillips, Ambilight refers to the ambient light which is generated corresponding to the video content currently being played on the screen. This effect gives you a feel of a much larger and immersive TV screen.

Ghosting – Appearance of a false image on the screen refers to ghosting. This generally happens when a previous image displayed on the screen can still be seen.

Bezel – A bezel refers to the outside edges of a Liquid crystal display screen or any screen for that matter.

1080i and 1080p displays – Video mode displaying 1080 lines of vertical resolution is written in shorthand as 1080p, the p stands for progressive scan where as on the other hand a 1080i display is shown in 16:9 aspect ratio which gives a screen resolution of 1920x1080 pixels. Here the i stands for interlaced.

Progressive Scan – also known as non – interlaced scanning is a method of displaying or transmitting video images in which all the lines of each frame are drawn in a sequence.

Interlaced video – This form of transmitting or storing moving images scans only the odd lines, then the even lines of each frame are drawn alternately.

SSDs VS HDDs which one is better?

Now we all have heard that the hard disk drive is dying slowly and it might kick the bucket any time soon, but is that so? SSDs have blazing transfer speeds when compared to HDDs. But are SSDs really better than HDDs? Lets find out. An SSD uses solid state memory to store data, they are called solid state as they do not have any moving parts, unlike a regular HDD which contain spinning disks to read/write data. SSDs use microchips to retain data in non-volatile memory chips. This makes the SSD quieter, and has lower access time. Spin-up time in an SSD is almost instantaneous where as an HDD might take several seconds. The time taken to read data from an SSD is less as the data can be read directly from any location, whereas an HDD with its mechanical components take longer to align. However there is one factor where HDD beats the SSD, they are much cheaper in price. SSDs might surely be advanced but still they haven't posed a major threat to the HDD due to their limited availability and high price.

Convection Microwaves explained

Convection microwaves are a combination of convection ovens and microwaves. A convection oven uses traditional microwave technology combined with heat energy allowing you to grill, roast and brown the food you cook in the oven. On the other hand a normal microwave is generally used to heat the food. The convection technology in microwaves uses hot circulating air which is driven by an interior fan which helps not only in warming the food but it also roasts or grills it just like a convection oven would do.

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