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The Yes Men

Bhopal, a city of two beautiful lakes and a remarkable cultural legacy, is today remembered as the site of the world's worst industrial disaster. On the night of December 2, 1984, a deadly MIC (methyl isocyanate) gas leak from Union Carbide's factory killed around 8,000 people in the first seventy-two hours alone. This number has gone up to 25,000 in the last twenty-six years.

Today, an entire generation lives with the effects of the gas exposure, and their children are being born with severe physical and mental disabilities. More than 37,000 people are forced to live with contaminated ground water. The disaster continues and so does the struggle by the victims of Dow-Carbide poisons. Till date, no one has been prosecuted – Warren Anderson remains an absconder, and Dow Chemicals refuses to accept any liability for the Bhopal disaster. Even though Dow Chemical has accepted Union Carbide liabilities in Texas, for workers who were affected by Asbestos (produced by Union Carbide), when it comes to Bhopal, they seem to display double standards.

However, the people of Bhopal are not alone in their struggle; the injustice they have suffered and the moral strength of their demands have won them support across the world. In this context the role played by The Yes Men has been truly remarkable. The Yes Men have initiated a series of actions highlighting the Bhopal struggle.

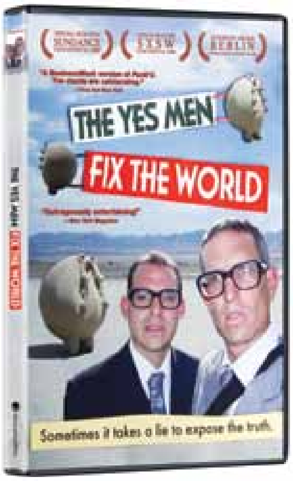
On the 20th anniversary of the disaster, when Dow had newly acquired Union Carbide, to become the largest and richest chemical corporation in the world, The Yes Men appeared on the BBC, posing as Dow executives, and accepting all responsibilities related to the disaster. Nine years later, when Dow was organizing a global 'Blue planet Run', promoting safe water, even as it continued to ignore the plight of more than 25,000 people in Bhopal who were forced to live with the contaminated groundwater, The Yes Men distributed Beau' pal water bottles. Again, a year later when Dow sponsored the Live Earth Run, The Yes Men appeared in New York criticizing the protesters for their optimism – that one day justice will be done. Each time, Dow had to make a public statement that they would never own-up to the Bhopal liabilities.

With each of their actions The Yes Men have not only embarrassed Dow Chemical, but also exposed the truth and unmasked its 'human element'.

Their kind of activism has inspired actions across the world – both online as well as offline. These actions though publicised, as 'spoofs', in effect expose the many contradictions between the powerless and powerful, and the extent to which their greed for money and power can maim and victimise the world in reality. In a similar vein comes the release of their much-acclaimed film – The Yes Men Fix The World.

This film chronicles their consistent efforts towards strengthening the people's struggle against corporate greed, and accepting accountability. The film raises critical questions, calls on the audience to take action, and sends a warning to the mighty and powerful against any misgivings that they might have with regards to the public, the strength of their struggle and the support they inspire worldwide.

For more information please visit www.bhopal.net and www.studentsforbhopal.org, or email rachnya@gmail.com.



"With each of their actions The Yes Men have not only embarrassed Dow Chemical, but also exposed the truth and unmasked its 'human element'."

The Yes Men: Andy Bichlbaum and Mike Bonanno

Fix the world

Those of you who have read this magazine over the years probably found something strange with page 1 this month. Traditionally, the first page of this magazine has been reserved for the editor's column, and sometimes carries a message from the publisher. We've never given anyone outside of this company that first page. It's not a rule that's written anywhere, or something that the company has taken a conscious decision about; it's just always seemed morally correct. I know a lot of other magazines do it, and get premium rates for the page too, but we don't.

Perhaps like every editor before me, I also promised myself to not let page 1 be used as a gimmick – to try something new, to make a statement, or to get premium ad rates. I also promised myself that the page would always deal with technology. I'm going back on those promises, and I'm not sorry.

I'm a huge legal torrent buff, and a month ago, I came across the movie, The Yes Men fix the World. Thanks to an unlimited internet connection, I had no qualms when clicking Download.

I'll be honest, I've never liked the gimmicks and stunts people pull to get attention (and, yes, I abhor reality TV). Had someone told me this movie was about a couple of scamsters who pulled elaborate stunts to embarrass big corporations, I probably would have ignored it. I'm thankful no one did, because I thoroughly enjoyed every minute, and learnt that gimmicks and stunts are sometimes very necessary – for the right reasons.

My very first thought was to share this movie with you, but that just wasn't enough. Those of you who bought this magazine from the news stand probably saw the movie advertised on the packaging. And for those of you who didn't, or those who subscribe, my little "stunt" was to bring it to your notice.

I don't want you to watch the movie just because it shows two guys getting a little payback for the Bhopal gas tragedy that our country faced – if you consider causing stock prices of The Dow Chemical Company (who bought Union Carbide) to fall a couple of billion dollars "little payback", that is. Nor do I want you to watch the movie because it's very funny and entertaining... which it is. The most important message I found in this movie was that ordinary people like you and I can actually "do something" about the injustices in the world. For all those of you who think, "I'm just one person, what can I accomplish?", this movie is your answer.

The Yes Men try and make money by selling DVDs of their movies, and ask for donations on their web site – it's obvious they need money for their projects to continue. Yet, when I told them I wanted to share their movie with you, but had no budgets to buy their movie, all they asked for in return was to carry a note on behalf of the victims of Bhopal. Genuine nice guys!

I urge you to follow their exploits, and support them in any way that you can. I'll be donating $19.84 to their Yes Labs project at http://theyesmen.org, because that's a donation amount they came up with to commemorate the Bhopal tragedy. I hope the more well-to-do amongst you will watch the movie and consider doing the same, to empower The Yes Men to continue playing havoc with corporations that thoroughly deserve it; and even if you can't donate, you can follow their example and start caring a little more.

You can choose to care by indulging in activism, like the Yes Men, or just choose to care enough to find out more about the brands you buy products from. Just as the Yes Men use technology to aid them with their endeavours, you too can make technology work for you.

Use our Consumer Protection initiative when a company tries to stiff you out of your rights, and recommend that as a solution to friends who face problems with service. Use our Forum (thinkdigit.com/forum) to let other consumers like yourself know about your experiences with a company – good or bad. Do a little research online about a company before you buy products; look for how much investment it makes in green initiatives, etc. Recycle your old hardware, and as far as possible try and donate it to people or institutions that need it more than you do... Just choose not to be a silent spectator, and you will be doing enough.

Also, remember to send feedback about the movie, to us and to the Yes Men, and also send in your suggestions about how we can collectively work to keep big corporations from being complacent about their moral obligations.

"...all they asked for in return was to carry a note on behalf of the victims of Bhopal. Genuine nice guys!"

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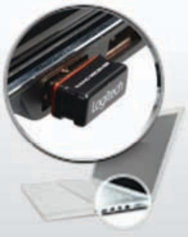

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Dr Santhosh Kumar R

We are glad that you've tuned yourself to technology despite coming from a medical background. You will be pleased to know that a lot of medical practitioners do read Digit, and we're delighted to hear from a surgeon after a long time. Continue reading your favourite magazine and we'll continue to fuel your tech hunger.

Nimish

✉ I'm from Goa and have been a regular reader of your magazine. It has helped me solve several technical issues with my system. It has educated me on a lot of topics related to technology and gadgets. I have become a tech guru within my friend circle and locality, all thanks to Digit. Keep up the good work. The DVDs too carry awesome software that have come in really handy for me. I would sincerely request to consider changing the DVD interface. The old one really bugs me.
I am also requesting you to please add the trial of Adobe Master Collection in the December DVD. I really need it and can't download because of the huge size.
I would be really grateful if you fulfill my long desired wish.

Lezwon Castellino

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We're giving away
8 crores worth of gifts
to our readers.
Head to page 92 to reclaim your three guaranteed gifts

November 2010

Good to know that you like the magazine and DVD contents. We changed the whole look and feel of the DVDs in terms of user interface since the December issue. You should check out the new interface and give us your feedback on whether you like this better or not. We have given the Adobe Master Collection in the DVDs earlier, but will provide it again in the coming months. Thanks for your suggestions. Happy reading.

Sambhav

✉ I've been reading Digit since a year and there is one thing which I must say. "You guys rock". I've even dumped the thought of using pirated Windows and switched to FOSS. I would like to tell you that I really love reading World View section which you've started recently. I'm a student in a city where electricity goes off very often, and the thought of not being able to read the Fast Track has really moved me to write my first mail to you in this year. Since I'm a student I don't actually get a lot of time to enjoy with my computer and ultimately read the hard copy. I read the FTs in the eight hours I get to sleep. So I am partial towards the Fast Track print edition and do not want a PDF for it.

Mukul Kumar

We are proud of you for dumping pirated software and using open source instead. It is gestures like these that are really humbling. Also, it feels great to know that our newest section – World View – has impressed you. The articles that we feature there are hand picked by the entire Digit team. Don't worry about the Fast Track. We are not switching to ebook formats anytime soon, as we have received lot of letters expressing similar concerns. Keep reading Digit and spreading the word of anti-piracy.

Siddharth

✉ I am a tech enthusiast who loves to spend time reading Digit and keeping myself updated about the latest tech news and gadgets. All the articles are very interesting and have quite a lot of new things for me to learn about.
This month, I thoroughly enjoyed reading the Augmented Reality and the Great Diwali Deal Hunt articles.
The Diwali Deal Hunt article has surely made me more conscious about the "discount" tags and exaggerrated attractions.
The world view section was a truly amazing read and I would really hope you keep enlightening the readers with cool gadgets from all over the world keeping the users enthralled.

Ankit

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Yes, we felt that we needed to cut through all the marketing jargon to give our readers the true picture of discounts during this season. Thank you for your positive feedback for the World View section. It is our constant endeavour to provide our readers with cutting edge contemporary content. World View is a step in that direction. Rest assured of getting your quota of technology from our side every month

Nash

✉ Hi Digit! I am 14 years old and an avid reader of this prestigious tech magazine. Here's my story (hope you read it):
My journey with Digit started about a year ago when I was 13. I saw a DVD at my cousin's place with a logo "Digit Mindware". I popped in the DVD and I was amazed with so many software and I asked my cousin, "Where did you find this?"
He said that it comes with Digit Magazine every month. As soon as I came to my hometown I made my dad go out and buy a copy. I bought it only for softwares but it became like my brother. When I got my hands on it, I explored the DVD and installed almost everything. Then I read the magazine - wasn't able to understand some articles - but I read them over and over and kept getting amazed. I'm now hooked on and Digit made me a geek from a n00b. Now, I am a blogger, techie, deviant, and most important Digitian. Now I have my website up (http://www.geekcorner.co.nr) and all my friends ask me for gadget buys especially rig suggestions. All this is due to my brother- Digit, which digitized my life and me!

Gurpreet Verma

I was once a reader myself, who also bought the magazine the first time for the CD, so I know how you felt.
I'm glad Digit was able to awaken the dormant geek in you, and introduce you to the wonderful world of technology - just as it did for me over a decade ago. Keep reading and sending us feedback, and also join our forum - www.thinkdigit.com/forum - if you're not already a member.

Robert

LETTER OF THE MONTH

✉ I am a subscriber of Digit and first of all I want to congratulate you on your tremendous improvement in delivery of issues to subscribers, which previously was a thorn in the petal of roses provided by you. I had received my past issues on 1st of the month itself.
Regarding opinion on "World View", I personally love this section. It provides me with a lot of information about various technologies and more. Please carry on with this section in the future. Your step to provide "World View" actually helped my friends who are in the U.S. Pursuing a Masters degree.
Regarding Fast Track, reading it on paper as it is of immense use in my scheme of things. One can not always rely on the system due to electric shortages and computer issues. In that case, the Fast Track will not be readable. Also, Fast Track in the book format is portable and easy to carry around. Moreover you are publishing the electronic editions of Fast Tracks in your December edition, so that can satisfy the ebook reader community. Carrying these in digital format on the go requires either a laptop, which we do not carry always or a smart phone which many still do not possess.
At last I want to make a small request to change the interface of your DVDs since the same interface has been around for lot of time and I think most of your readers want to see a change now. Also try to include posters of international bands with your issue or at least add them to your shopping cart.

Abhishek Kapoor

It feels great to know that you appreciate our new section World View. It is going to stay and isn't going anywhere as it seems to have got a thumbs up from a lot of readers like you who like to keep up with what's happening across the tech world. We always try to innovate to give readers like you nothing but the best. We understand your concern regarding Fast Track. We had got mixed opinions on the issue of hard copy vs e-book. For the time being we will stick to hard copies. We hope you like this month's special DVDs.

Nimish

✉ I am a great fan of your magazine and it has been a favourite of mine since May 2009. I first read it in my library and now I'm a subscriber too. I am an aspiring geek and a young programmer. Without Digit, my tech-journey wouldn't have ever started. I love Digit, but do have a few suggestions:
1. Please include how to install alongside Linux ISO and partitioning.
2. In the June issue you provided seeds, likewise can you provide electronic components. It'd be uneconomical but a boon to us readers!
3. In World View can you please tie up with international websites as they provide good content on their site but in an unorganized form unlike your magazine.
5. Please improve your RSS Feed. It gets updated very late! That's all I have to say.

Siddharth

First of all your suggestions are incisive and thanks for send them in. We try to include Linux based articles in every issue and we have covered your topic in previous issues as well. The electronics components are a little difficult to manage due to logistical limitations. We are working on a cost effective alternative so that our community would benefit in the long run. Stay tuned for more. In our World View section, we do in fact provide articles from reputed web sites such as the Ziff Davis Publishing Holdings Inc, publishers of several renowned web sites dealing with extreme technological advancements across the globe. These include www.extremetech.com. Besides we hand pick links to international articles on technology that are informative. If you have noticed, the first page of World View is dedicated to the best articles from one particular web site and we call it [website name CORNER]. We feel that there are many websites to which our readers should be exposed and we try not to limit ourselves to just a couple of international web sites. We'll definitely rectifiy the issue with our RSS Feed.

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iOS 4.3 in December?

Apple iOS 4.3 expected in December could in mid-December could boost The Daily, the iPad newspaper collaboration between Apple and NewsCorp

HTML5 on Aviary

Creative photo-editing web app Aviary has announced an HTML5 based photo-editor code-named Feather

PlayStation Store hits India, offers value for money game downloads & subscription

Users in India can now access the PlayStation Store in India, and also subscribe to PlayStation Plus service. If you're hooked on to the PS3, PSP, or PSP Go, you'll have an Xbox Live compatriot, and apart from being able to play online with other PSN members, you'll also be able to log on from anywhere. Besides, you'll also be able to download content.

Perhaps the most exciting part of the deal is the rather unbelievable price of downloading full games from the PlayStation Store for as little as ₹225! You can even buy a PSP game for ₹170. That's ten games for the price of one... and a rather large incentive to opt for a PS3. If you were wondering about rights and terms such as DRM, note that it can be used on up to five other activated consoles.

The other highlight is the annual subscription package for PlayStation Plus, a service which will give subscribers access to free games and demos, as well as beta trials and other content, for ₹2,850. Sony claims subscribers will get almost ₹14,000 worth of free content in the one year period. For those just wanting to try the service out, there is a 90-day PlayStation Plus subscription package that retails for ₹885, which will apparently offer almost ₹6,500 worth of free content.

Ten years later, LimeWire forced to kick the bucket

After serving as one of the most popular P2P clients for a decade, LimeWire has been issued a permanent injunction for copyright infringement and unfair competition.

The case against LimeWire has been going on since 2006, when the Recording Industry Association of America (RIAA) filed its copyright infringement lawsuit. While it won a summary judgement in May this year, the RIAA has now got the permanent injunction it was fighting for. Why? You guessed it: "downloading or sharing copyrighted content without authorization is illegal."

Music labels will apparently now be entitled to seek damages from the LimeWire and its founder, Mark Gorton, and a hearing for this purpose has been scheduled for January 2011, with up to $1 billion at stake. RIAA is obviously very happy with this vindication, and commented on the demise of the P2P client: "The court has now signed an injunction that will start to unwind the massive piracy machine that Lime Wire and Gorton used to enrich themselves."

Limewire CEO, Gorge Searle said that the Lime Group and LimeCompany are not yet down and out. Instead, the group is trying to work on a new music service called Spoon, and is apparently in talks with all four of the major labels that back the RIAA. He said: "We look forward to embracing necessary changes and collaborating with the entire music industry in the future." Don't expect things get up and running too soon though, as (you guessed it, again), the labels aren't being very cooperative.

LG introduces digital camera with 3G!

Looks like LG has decided it has had enough of camera-phones, and has decided to try something new: a phone-camera. What's the difference? The latter primarily functions as a compact digital camera, but offers telephony, as well as GPS and 3G connectivity.

Called the LG L-03C, the phone-camera is due to release in Japan in January, associated with Japan's premier carrier, NTT-DoCoMo. Specifications of the device rival other equivalent compact digital cameras, with a 12.1MP sensor, ISO range of up to 3200, a Pentax 1:3.6-55 3x optical zoom lens, Xenon flash, 720p HD video recording, GPS, and geo-tagging, as well as Wi-Fi, Bluetooth, and 3G connectivity.

The LG L-03C phone-camera has a 3-inch 800x480 capacitive touch screen, and NTT DoCoMo's proprietary operating system. Memory, storage, and CPU specifications are still unknown at this point of time.

Pricing has not been revealed as yet either, but one has to wonder what LG is thinking - will it price the L-03C as expensively as the premier camera phones in the market, or will it levy a substantial premium over 12MP compact digital camera prices? The device certainly won't fit as well in the pocket as a camera-phone, and will probably be substantially heavier!

The 3G connectivity option is definitely an added bonus and a major selling point for the device, potentially allowing for much higher-degree of anytime-anywhere sharing than digicam users expect.

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Tablets from Acer
Acer has unveiled three tablets, the 5 and 7-inch ones running on Android OS whereas the 10-inch one running on Windows 7

$213,600 for an Apple 1
An Apple 1, that was launched in 1976 for $666.66 was auctioned off at Christies for a whopping $2,13,600

AMD Radeon HD 6870 and HD 6850 GPUs hit markets

AMD has launched the Radeon HD 6800 series with the HD 6870 and the HD 6850, which unlike what you'd expect, are the next-gen replacements for the HD 5770 and the HD 5750, or the performance-mainstream market. The upcoming HD 6900 series, which is now rumoured to arrive sometime before the end of the year, will replace both the HD 5800 and 5900 series, or the high-end performance market.

The HD 6850 has a suggested retail price of $179.99, while the HD 6870 has a suggested price $239.99. Apart from full support for 6-way Eyefinity, AMD claims that HD 6800 series has better tessellation execution that helps give up to 30% performance improvement over Nvidia's competing graphic cards, as well as new features such as morphological anti-aliasing and enhanced anisotropic filtering performance.

How NVIDIA's efforts will compare with AMD's remains a very pertinent question, and for now however, until the HD 6900 series rolls out (the dual-GPU [Antilles] HD 6990 is now rumoured to release only in Q1 2011), the GTX 580 definitely holds the crown of the "fastest DX11 GPU on the planet", with much more grace than the GTX 480.

ASUS shows off upcoming boards

ASUS recently held several technical seminars across the world. Digit was invited to one held in Singapore late October. ASUS showed some of their upcoming boards based on Intel's P67 chipset. One of the boards to be showcased was the Sabertooth P67 was one of the interesting designs with a clean flush surface covering most of the board. There are also plenty of sensors in the board which give the user an accurate idea of hot spots. ASUS calls it the Tactical Vest and its aimed at improving air flow around the board. Following the rest of the RoG series, was the Maximus IV Extreme board based on the same P67 chipset. The board is aimed at extreme overclockers and there have been some unique features such as overclocking remotely using an iPad or iPhone.

ASUS also showed many other P8P67 boards for different price brackets and in different form factors. One that caught our eye was a mini-ITX board. The seminar highlighted some of the features designed for their upcoming boards, after which there were overclocking demos shown by R&D staff from ASUS.

Microsoft takes on Google Apps with Office 365 cloud service

Microsoft has announced a new cloud service, called Office 365, which will include various Office desktop software as well Office Web Apps, online at www.office365.com. The service will also include SharePoint, Exchange and Lync. It will officially go online next year, though beta testing opens now.

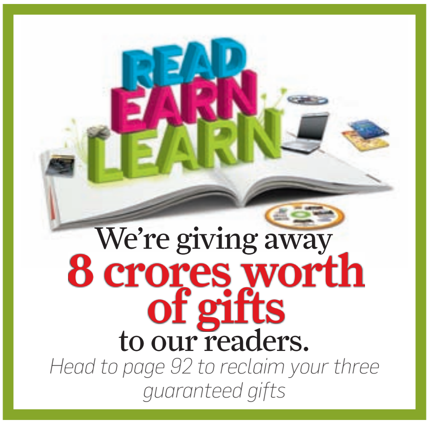
The hosted software for business is not free, and is available for small businesses, professionals and small companies with fewer than 25 employees, starting from $6 per user per month. This will include only web-based Office software. Office 365 for enterprises for midsize and large businesses, will start at $2 per user per month for basic e-mail, ranging up to $24 per user per month for the complete deal, including the full Office Professional Plus desktop suite, communications server tools, online versions of the desktop software, voicemail, enterprise social networking, instant messaging, Sharepoint, Exchange, Web portals, extranets, voice conferencing, Web conferencing, 24x7 phone support, and on-premises licenses.

The platform will apparently work across multiple devices, and will introduce great new collaborative as well as security features. It is expected to include Microsoft Dynamics CRM Online soon. Microsoft is obviously taking on Google Apps, and to be fair, Google offers a free service for consumers and small businesses with Google Docs and Gmail. Google Apps also has a paid business version, for $50 per user per year. Microsoft previously retailed its Business Productivity Online Suite for $120 per user per year, so the varying price points for different sizes of businesses.

According to Microsoft Office president Kurt DelBene:

"Moving to the cloud with Office 365 means people don't have to change the way they work, because [the suite] works with the most popular browsers, smartphones and desktop applications people use today."

"With Office 365, your local bakery can get enterprise-calibre software and services for the first time, while a multinational pharmaceutical company can reduce costs and more easily stay current with the latest innovations. People can focus on their business, while we and our partners take care of the technology."



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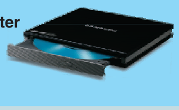

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Cheil-0528/10

10.53
The percentage of buyers from USA that attended Taiwan RFID, Taitronics and Broadband 2010 at Nangang

73
The number of stalls at Taitronics 2010 dedicated to meters and instruments

海峽兩岸電子展
Cross Strait Electronics Show
Hansen

Taiwan: the tech superpower?

Nash David
nash.david@thinkdigit.com

With the stake Taiwan enjoys in global trade, it stands out as the undisputed leader in terms of production, cost effectiveness and market delivery capabilities. This year, we visited three trade exhibitions in Taiwan hosted by Taiwan External Trade Development Council (TAITRA), the foremost non-profit trade promotion organisation in Taiwan.

TAITRA has been organising similar exhibitions to boost trade for more than three decades promoting Taiwanese companies that cut across various industrial sectors from televisions, audio/video, lighting, security to electronics components. Taiwan is the world leader in terms of global market share for chip resistors, WLAN NIC and IP phones; and number two in LED manufacturing, IC substrates and PCBs. This hints at a simple fact – you can't ignore Taiwan!

The three exhibitions co-located at the TWTC Nangang Exhibition Hall, Nangang District, Taipei, Taiwan – Taitronics, Taiwan RFID and Broadband Taiwan were aimed at the Electronics, Security, and Broadband and Internet Service industries, respectively. The Vice President of Taiwan, Vincent Siew, also known as the people's premier graced the event, and along with several other prominent government personnel inaugurated the event. Among the most significant announcements was that according to the IMD World Competitiveness Yearbook 2010 of the International Institute for Management Development (IMD), Lausanne, Switzerland, Taiwan ranks sixth in the world and second in Asia for its competitiveness in green technologies.

Go green

We were pleased to see green technologies being promoted by the Taiwanese government. We believe we need a similar boost in our country in order to witness a boost in the penetration of technologies such as LED lighting and fuel cells in organisations. According to Min-Hsien Lin, General Manager, Fuel Cell Research Divison, Tatung System Technologies Inc., "Yes, compared to the millions of dollars being quoted by American and European companies for fuel cells, Taiwan's Tatung has products that meet International quality expectations at much lower costs. In fact our technologies are also safe on the environment. We also have activities dedicated to harnessing our planet."

Vice President of Taiwan, Vincent Siew, briefed by Everlight's Stephan Greiner

W S Lin, Chairman and President, Tatung Co. spoke to us and told us how excited they were about the prospects in the future. As the head of a very respected and well known business house (a Tata of sorts), Lin expressed optimism towards the future. If you've not heard of Tatung before, you'd be surprised to know that you're probably using their products already. Several trusted brands (featured in our Icons of Trust) source their products from Tatung (picture tubes, LCD, LED panels and semiconductors).

The LED industry, too, is receiving the much needed fillip due to the thrust on greener technologies and is now worth over NT$60 billion. We spoke to several

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54.51
Percentage of buyers at Taiwan RFID, Taitronics and Broadband Taiwan 2010 from Asian coutries, including India

1570
Total number of booths at the Taitra event at TWTC Nangang Exhibition Hall, Nangang District, Taipei, Taiwan

companies dealing with LED lighting solutions. Stephan Greiner, Vice President, Global Sales of Everlight Electronics Co. Ltd. was forthright in the advantages of sourcing components from Taiwan. He was excited too at the high quality standards of Taiwanese products when compared to other low cost models. He reiterated the sentiment shared by many we met in Taiwan, "the quality of products in Taiwan is superior at low prices." In fact, Everlight has used Taiwanese designs for one of the lamps it plans to introduce in the market. The leaning towards LEDs was evident all across the event, and in a country that has a controlling stake in global affairs, whether you are talking about lighting or green technologies, it won't be long before you mention Taiwan.

Smart tags

RF identification is also, a rather underutilised technology in India, again something we need to learn from Taiwan. When we drive through our highways, and stop over at toll checkpoints, it reminds us of our time spent in Taiwan, where unmanned toll booths would directly transact with your vehicle as you drive through without any need to decelerate, leave alone stop your vehicle. In fact even the retail industry depends on RFID tagging to track goods being sold, and managing inventory.

We don't see that happening in the stores around us. Who says foreign investment is bad for the Indian retail industry? What would we prefer, a few individuals growing richer by the day or increased transparency?

Security measures

Moving over RFID, Mifare and newer technologies are now finding their way in to the industry. Several Taiwanese companies, including Soyal Technology Co. Ltd., showed us their latest range of security products. These include locks, safes and also fingerprint and finger-vein scanning devices. Similar to fingerprints, latest security devices now use finger-vein patterns to draw a unique pattern for each user registered with the system. The chances of forging and duplicating finger-vein patterns are much lower than fingerprints.

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Go to page 92 for details.

Each visitor was tagged, making use of technologies showcased at the event

Could this be the future of automobiles? An all electric, no fossil-fuel car!

Innovation

The number of available products were enormous. We saw paper thin LEDs sewn to bags that you could fix on your bicycles. Although road rules aren't as stringent in India, the world over cyclists need to have a light indicating they are stopping. With inventions such as these, cyclists don't even have to do any fixing or fitting with their bicycles. We saw camera set-ups that capture vivid colour images even in extreme dark conditions; and even found intelligent power meters that cater to prepaid energy distribution networks. Another new product being promoted was the MEMS microphone. MEMS stands for MicroElectrical-Mechanical System. These kind of microphones are miniscule and are etched directly on to silicon chips.

Another area we were pleased to explore was Web TV. Richard Chen, Product Marketing Manager for Webia Technologies gave us a demo of an effective alternative to Google TV. A box, much cheaper than $100 running on Android would guide you through TV, email, chat, games and more. We're waiting for them to be sold in India. As for IPTV, they still haven't made a mark in India.

The Indian market

When we asked for their opinion on the Indian prospects, nearly everyone agreed to India being a "low cost" and "price critical" market. It's a perception globally that we tend to focus on products that are cheap, rather than emphasise on quality. Sad, really. We're looking forward to the day when consumers in India are considered discerning and choosy, rather than bargain hunters. It was comforting, however, when most of the companies said they were watching India closely... d

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2010: The year of the OSes

While 2010 has been the year of the tablet, we certainly think it might as well be called the year of the mobile. We saw the launch of new mobile operating systems, countless phones, new chipsets, new display technologies, tablet-phones, phone-cameras, and a lot more...

New OSes

Seven new operating systems were released in 2010 – Apple's much updated iOS 4, Google's polished Android Froyo, RIM's touch-friendly BlackBerry OS 6, Symbian Foundation's much maligned Symbian^3, Intel and Nokia's MeeGo, HP-Palm's refreshed webOS2.0, and Microsoft's mixed review champion – Windows Phone 7.

All of these brought something new to the table, and all of them learnt something from each other. A thing that they all share in common is a conscious movement towards simplicity, with seamless form, followed-up by powerful functionality. Each offered users many of the features they'd been asking for, and each received varied amounts of praise and criticism. No matter how well they fared against each other now, the future of all these platforms looks promising, with major updates already promised to arrive by next year, and all the bustling competition making the end user the real winner.

Apple's iOS devices, and the iPhone have been doing especially well this year – over 14 million iPhones sold in last quarter . However, Android saw the most remarkable growth this year, despite what some call fragmentation in the form of three separate operating systems on sale in the market. Starting with a U.S. smartphone market share of 14 per cent in January (according to an AC Nielsen report), compared to Apple's 32 per cent and RIM's 34 per cent, Android assimilated a dominating 32 per cent share of the market by August 2010, leaving RIM and Apple each a quarter. The introduction of Froyo (Android 2.2), saw wide-scale manufacturer adoption, and a burgeoning of Android market share.

Now, Gingerbread (Android 2.3) is already being shown off, and the improvements it promises will soon be mass-adopted by manufacturers in early 2011. Android, just like iOS, will soon also get a tablet-oriented variant, called Honeycomb (Android 3.0).

Mobile brands

Nokia remained at the top of the handset market, but lost a chunk of its lead. LG, Sony Ericsson and RIM also suffered major losses, while Apple saw some astounding growth – bagging a top four spot, ahead of RIM and Sony Ericsson! Samsung held on to its fifth spot. HTC and Motorola, although not on the list for now, are also quickly gaining market share, and might pose a serious threat to Apple and RIM in 2011.

At home in India, it's the domestic brands that have made the most impact, taking chunks of market shares away from Nokia and Samsung. We have a really complex market, with about 35 brands competing in a cut-throat business. In India, Nokia's share fell from 54 per cent at the end of June 2009 to 36.3 per cent in June 2010. In contrast, the top four domestic brands (Micromax, Spice, Karbonn and Lava) together account for nearly 33 per cent of the sales. Now Nokia has contested these figures, and these numbers are usually consumed with a pinch of salt, but it's undeniable that the Indian brands are on the rise. . The Top 5 according to IDC were Nokia, Samsung, G'Five, LG, and Micromax.

Top 5 mobile phone vendors, Q3 2010 (Units in Millions)

Vendor	Q3 (10) Unit Shipments	Q3 (10) Market Share	Q3 (09) Unit Shipments	Q3 (09) Market Share	Percentage Change
1. Nokia	110.4	32.4 per cent	108.5	36.5 per cent	1.8 per cent
2. Samsung	71.4	21.0 per cent	60.2	20.3 per cent	18.6 per cent
3. LG Electronics	28.4	8.3 per cent	31.6	10.6 per cent	-10.1 per cent
4. Apple	14.1	4.1 per cent	7.4	2.5 per cent	90.5 per cent
5. R.I.M.	12.4	3.6 per cent	8.5	2.9 per cent	45.9 per cent
Others	103.8	30.5 per cent	80.9	27.2 per cent	28.30 per cent
Total	**340.5**	**100 per cent**	**297.1**	**100 per cent**	**14.6 per cent**

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Tablets

With a launch seemingly every other day, 2010 was a joy for tablet lovers. The Apple iPad was the first major device to hit the market in April, and it sold a whopping 3 million units in under three months!

Other tablets were slow to arrive on the scene officially, with the Samsung Galaxy Tab hitting markets only recently, after the Dell Streak launched in June to a lukewarm reception. The Toshiba Folio 100 also launched with poor reviews. The CrunchPad, which later became the JooJoo from Fusion Garage, gave us hope, but it was plagued with usability issues. The Indian favourite, Notion Ink's Adam, is still under development, and is expected to release only in 2011, but it still looks promising.

HP ended-up sticking with webOS 2.0 for its consumer-oriented tablets, and used Windows 7 on its enterprise oriented devices. It's just released the high-performance HP Slate 500 for enterprise customers, which looks to have a promising future.

The Apple iPad has yet to hit Indian markets, officially. The most interesting tablet available here is Olive Telecom's recently

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released OlivePad VT100 – an Android 2.2-based, 7-inch tablet with full phone functionality as well as 3G and Wi-Fi connectivity, and is priced around ₹24,000. ViewSonic owns rights to the design in some markets, including the US and Europe, and is launching it as the ViewSonic ViewPad 7. ViewSonic will also release three more tablets soon. Other manufacturers, such as MSI, RIM, Acer, LG, and Asus, all have tablet devices coming up by end 2010 or early 2011.

New phones

There were plenty of new phones launched this year, from Nokia's claim to the smartphone crown with the photo-happy Symbian^3-based Nokia N8, to the fast-spawning Android-based Samsung Galaxy S and its wide family. Other notable mobiles include the Apple iPhone 4, HTC Desire, BlackBerry Torch, Sony Ericsson Xperia X10, and Motorola Milestone XT720.

Dell made its mark in the mobile handset world this year, starting with the Streak. It also previewed numerous other models, based on Android and Windows Phone 7, most of which will be releasing early 2011. Dell also tried its hands at selling re-branded ZTE phones in India, getting on the low-cost Android handset bandwagon.

PLAY!

Exciting prizes to be won!

Head over to page 90 and 91 to participate in some awesome contests...

HP acquired Palm earlier this year, and the industry was eager to know just what HP intended do with Palm's acclaimed proprietary mobile technology. HP kept mum for most of the year though, until it previewed the Palm Pre 2 – the successor to the successful Palm Pre, featuring a new and improved webOS 2.0.

Other notable mobiles introduced include the Sony Ericsson S006, which will offer a 16.4 MP camera to users, as well as the LG L-03C phone-camera, which is a device with the form factor of a compact digital camera.

Most Windows Phone 7 phones have received good reviews, while the operating system seems to have made quite an impression with critics and masses alike. Of course, only time and continual improvement will tell if WP7 will survive in the competition-ridden smartphone world.

Hardware

A lot of new hardware was introduced this year, from Super-AMOLED, SuperLCD, and Retina Display screens, to hardened Gorilla Glass, better cameras, and more capable mobile processors.

Processors are becoming smarter and faster, and if anything, they require power-consumption to be optimised in the face of all that performance. While 600 MHz has become the absolute minimum clockspeed for a smartphone or tablet processor, 1 GHz processors first introduced in 2010 are found in numerous devices. Right now, leading processor and chipset manufacturers are all concentrating on providing the best performance per watt, whether they use System-on-Chip designs or more conventional chipset, dual-core or single-core. Current hopefuls are the ARM-designed dual-core Cortex A9 derivatives, such as the 1 GHz Samsung Orion. Qualcomm has also announced its dual-core Snapdragon processors, due in early 2011, running at 1.2 GHz and 1.5 GHz. The NVIDIA Tegra 2 is also finally seeing some wide-scale adoption, being chosen by LG to power its Optimus lineup of smartphones.

RIM

It's been a very tough year for RIM, losing market share to Apple, Nokia, and Android devices. RIM's latest flagship phone, the BlackBerry Torch, which features its latest OS (BlackBerry 6), has not done well in global markets, and received very lukewarm reviews. However, things might be looking up in the form of the full-featured RIM PlayBook (tablet), when it releases later this year.

What 2011 will bring

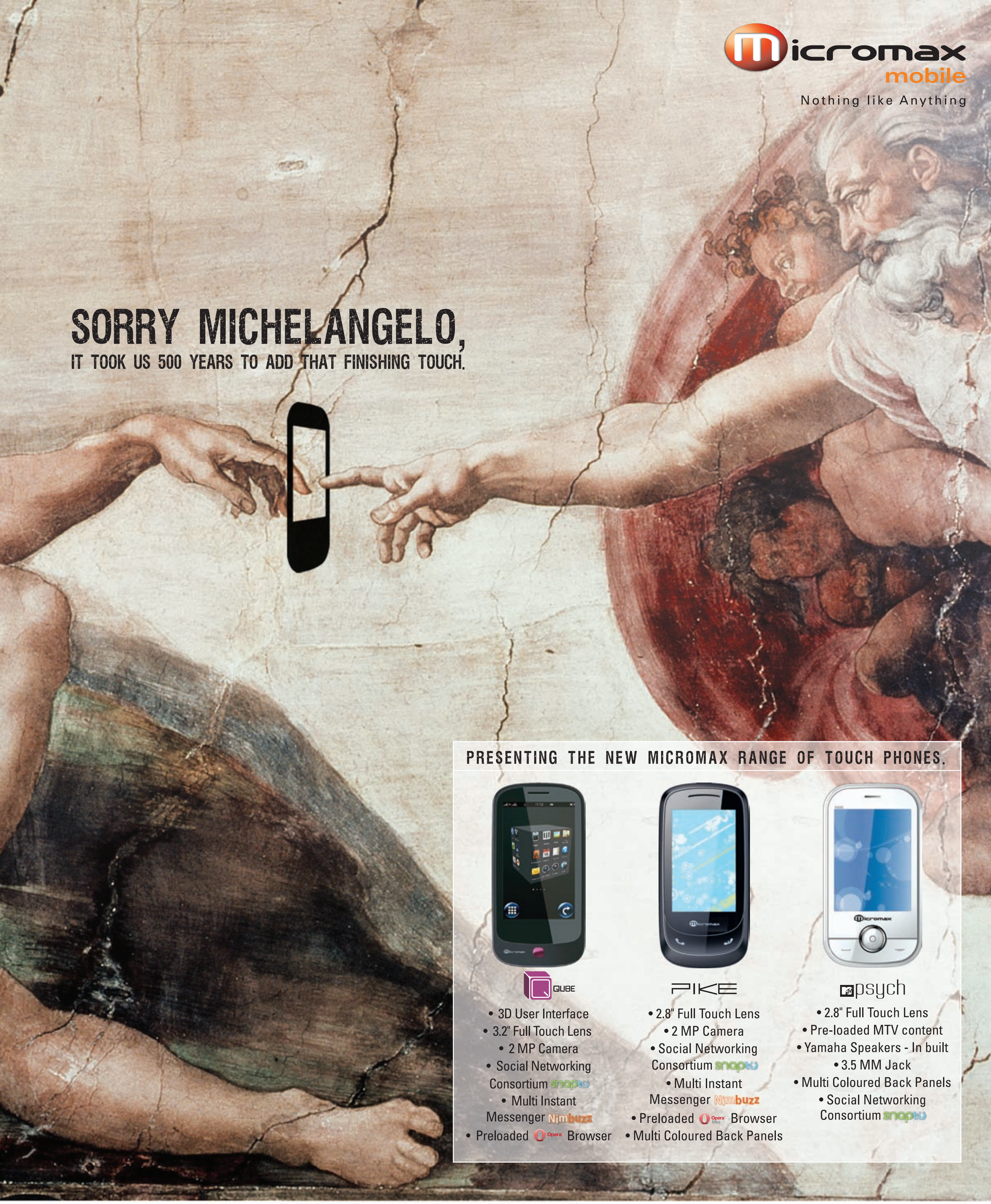
2011 promises to be even more exciting then 2010, with all those new operating systems vigorously competing in the very level playing field of the global mobile market. Windows Phone 7 in particular promises to evolve further and continually better itself, providing better security features, Xbox Live functionality, a better mobile app market, numerous new handsets, and finally, even simple copy and paste functionality. We also look forward to a whole bunch of tablets from a variety of manufacturers, big and small... Google's tablet friendly version of Android, Honeycomb, will certainly galvanise the market further.

The next generation iPad is also expected, featuring a higher resolution display, front facing camera, and a new and improved tablet-specific version of iOS4. In the Indian context, 3G is certain to bring a sea of change. All of a sudden, phones that can actually utilise the new data connections efficiently, allowing for a much better browsing experience, loads of mobile apps and value added services, more social networking and media consumption.

In terms of mobile hardware technology, we'll also see the first handsets arriving with dual core and other newer mobile processor architectures, hailing a new performance high in the mobile world, whether in the tablet, netbook, or mobile phone form factor. The Samsung Galaxy i9100S, or Google's latest Android flagship, the Nexus S, seems like it will be first such device, featuring Samsung's dual-core Cortex A9-based Orion processor.

On the software front, augmented reality will continue to grow, and as we all become more connected with 3G and 4G services, you can expect a whole world set alongside reality, providing you with information as and when you need it. Numerous developers are getting their hands dirty in this field, with the most notable being Google, with its Google Street View technology and connected search features.

All in all, 2011 sure looks like it will be an exciting time to be alive, if technology on the go is your thing. d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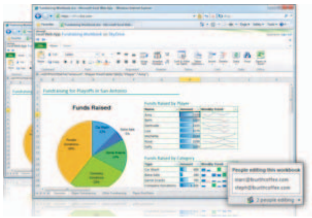
Top 10 web services and apps of 2010

Web apps and services feature as a big part of most of our daily lives, and are mostly taken for granted, and for that reason, we'd like to pay tribute to some of the best of 2010. While some of the biggest apps and services that we have honoured have been around for a while, numerous enhancements in feature sets made this year, as well as their continued relevance in the current scenario make them eligible. Sheer ease of use and the raw capability of each web app/ service was another important factor in our evaluation.

Office Web Apps

Microsoft's Office Web Apps, was released in June of this year, and has already made a mark on the web app scene. A free web-based version of Microsoft's Office productivity suite, it includes web-based versions of Microsoft's much-loved Office software, including Word, Excel, PowerPoint, and OneNote. The main advantages of cloud based Office productivity stem from anytime, anywhere accessibility, as well as online collaboration. Supported web browsers include Internet Explorer 7 and later, Mozilla Firefox 3.5 and later, Google Chrome, and Safari 4.

The Office Web Apps service is meant to replace Office Live Workspace, and ties in with Microsoft's Skydrive storage service that offers 25 GB storage. The service is integrated with Office 2010 so you can save documents straight to the web. While it is a slightly watered down version of Office 2010, but has enough features for casual users. While it still lags behind Google Docs in features but it is has much better compatibility with oft-used Microsoft Office formats.



Google Docs

Google Docs has seen quite a few changes in 2010, from abandoning IE6 to completely renovating its Docs engine. Google Docs is now one of the most comprehensive document suites online. Just this year, the Google Docs team have added nine major new features:

- Support for any kind of file on Google Docs
- Support for multiple file versions
- A thumbnail view for documents
- A web clipboard
- A completely new revamped editor for Google Docs with real-time sharing
- Google Docs drawings editor
- OCR support for recognizing text from uploaded images
- Spellchecker, with support for adding words to the online dictionary
- Improved document revisions support
- More web fonts in editor
- Drag and drop adding images to documents

Gmail

Gmail, one of the most used email providers in world, has seen numerous updates in 2010, with plenty of Gmail Lab updates 'graduating' into the standard version, and plenty of other new features, including a revamped interface, and a new mail sorting mechanism. Other new features offered in 2010 include:

- Priority Inbox which lets automatically detects which mails are important and shows them separate from your normal mail. It learns over time.
- Better support for devices, such as Android, iPhone and iPad.
- Turning off conversation view
- Video chat for Linux
- Voice calling straight from GMail. Can also receive calls. Ties in with Google Voice.
- Renovated contacts manager
- Access multiple GMail accounts at once
- Drag and drop attachments to and from emails
- Nearly instant loading of GMail windows
- Google Buzz, lots of controversy while launching, but is now quite in use
- Nested labels
- Improved account security
- Search auto-complete

Twitter

2010 saw quite a few changes incorporated into the Twitter service, and the biggest of them was a new revamped interface that was richer in media and real-time. Other new features include:

- @anywhere, Twitter integrated in other web sites so you can tweet and follow from any web site which supports @anywhere.
- Promoted tweets, tweets paid for by companies to stay on top of search results
- Promoted accounts, Twitter accounts that appear on the top of suggestions, promoted/ paid for by companies
- Promoted trends
- Promoted accounts, trends and tweets opened up to 3rd parties
- The Library of Congress mission to preserve all tweets for posterity
- Twitter launched official apps for Blackberry, iPhone, iPad, Android, and Windows Phone 7
- t.co link shortening service integrated with twitter
- Geolocation support
- Completed transition to OAuth

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Facebook

Easily the biggest social networking service on the web, Facebook claims to have in excess of 500 million users. An integral part of many people's lives, Facebook has also been the favourite target for privacy groups. While no social network has been spared from controversies regarding privacy, Facebook has faced the brunt of the unrest. Major changes include:

- Collaboration with skype
- New design
- Facebook chat
- High-res photos in albums, face recognition and auto-tagging
- Change in privacy settings (huge controversy / hue and cry)
- 0.facebook.com a lite version of Facebook which will not be charged for on certain mobile networks, for example Airtel in India
- Facebook places
- Friendship pages
- New version of Groups
- Ability to download your entire Facebook profile to file
- Remote logout and one-time login
- Modern messaging system with consolidated social inbox for SMS, IM, email, and chat

Project ROME

This incredible web application by Adobe brings some very powerful content creation and publishing features to the web. Called an "all-in-one content creation and publishing application", Project Rome lets "virtually anyone at work, home or school inject the power of graphics" into their work, and easily share it with the world. It is available both as a web app and a desktop app. Features include:

- Built-in Flash support
- Browser-based and also available as an AIR app
- Rich interface for creating rich media documents
- Great for presentations
- Supports adding, photos, vector art, even video
- Supports interactive elements such as hotspots and buttons
- Supports multiple pages, multiple layers
- Supports animating elements using a timeline
- Projects can be saved to desktop or stored online at acrobat.com
- Projects can be exported as static prints, images, PDF or even interactive SWFs

Ubuntu One

This great service by Canonical made Ubuntu's 10.04 upgrade more than just a simple OS update. A storage application, Ubuntu One is currently in public beta, but has already made it mark with its innovative approach to syncing and media streaming/sharing/consumption. Essentially, the service enables users to store and sync files online and between computers, both Ubuntu and Windows. A free Ubuntu One account offers 2 GB of storage, which can be increased to 20 GB with a paid upgrade of $2.99 per month. An Ubuntu One Mobile packages for iPhone and Android phones also exist for music streaming.

Ubuntu One is quite unique compared to other similar service providers, by providing a range of integrated features that work well with standard Ubuntu apps, such as Evolution and Tomboy. Additional support is also forthcoming, including local network synchronisation, browser bookmarks, and enhanced application synchronisation with the Ubuntu Software Center.

Skype

The world's most used VoIP service, Skype apparently accounts for a significant portion of international calls made in the world, with a report by TeleGeography Research stating that Skype-to-Skype calls accounted for 13 per cent of all international call minutes in 2009 – that's 54 billion call minutes on Skype!

Skype 5.0 has introduced some great new features, including 4-way video calling, automatic dropped call recovery, improved interface, updated mobile clients, and Facebook integration in form of friends/phone book, IM and SMS, and news feed support. Offline Facebook message support has also been added, stored free for 30 days on Skype's servers.

Picasa

One of the most popular photo-sharing services (Picasa Web Albums), Picasa is also a web app with its image organiser, view and editor features. A blend of "mi casa" and "Picasso", the name means a home for personalised art and pictures. It offers wide support for even legacy operating systems, including Windows 98, ME, and 2000, apart from complete support for all modern operating systems. Its numerous features include: organisation and editing, keyword data management, image meta search, image backup, face recognition, geotagging, and more.

Continually innovating, we know we can expect more great advances in field of photo-sharing/viewing/editing from Picasa, from the method of uploading to automatic meta-data generation.

Aviary

Definitely the smallest player in our list of web apps and services, Aviary can easily compete with Adobe's online content creation suite, Project Rome. It's developed by the relatively unknown Worth1000.

Built on the Adobe Flex platform, Aviary has a whole bunch of web-based multimedia applications to offer, each of which is named after a bird. Available absolutely free-of-charge, users can use Phoenix for image editing, Raven for vector editing, Myna for audio editing, Roc for beat generation, and the many other bird-named services. Plans are underway for pixel pattern recognition software, a word processor, image resizing, font creation, a terrain generator, and video editors. Go Aviary!

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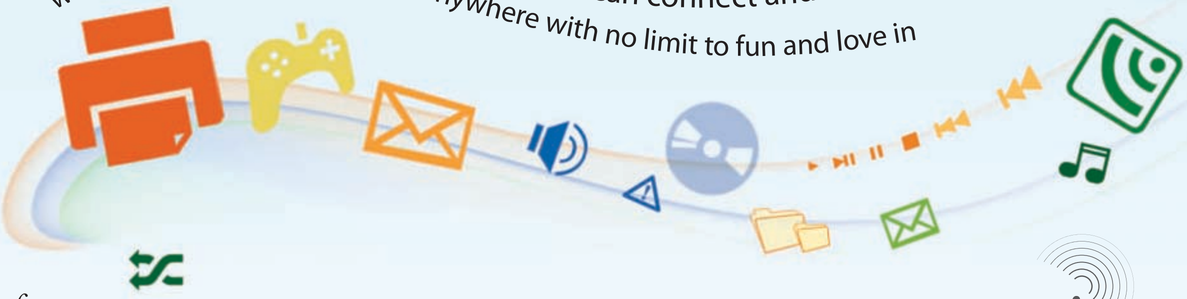

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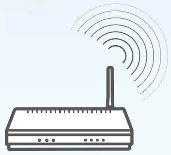

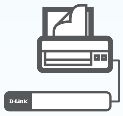

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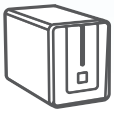

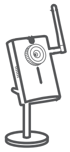

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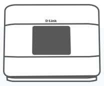

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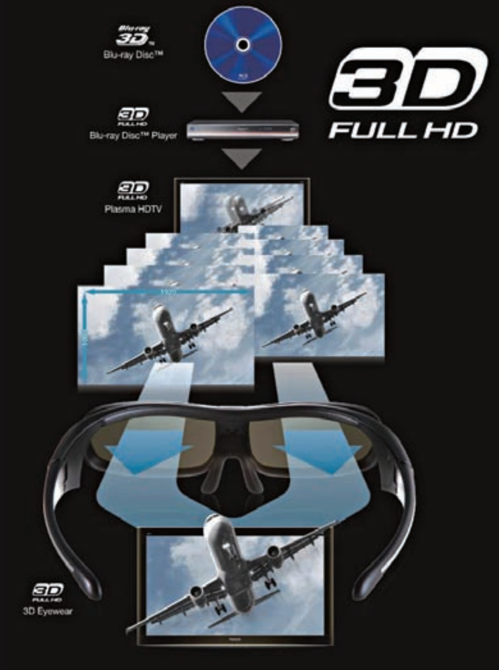

Feel all the passion, and all the thrills of 3D Hollywood movies right in your living room

When James Cameron brought *Avatar* to reality, no one dreamt about its grand success in the film industry. A few months later, color TVs, HD TVs and now FULL HD 3D TVs have begun a race for dominance. As the competition gets hotter, the sophisticated technology is becoming much more affordable for the common man. To be precise one has to pay just about 25% more for the 3D counterparts than the Flat Panel HD Displays, as per the latest estimates. The special 3D Eyewear from Panasonic is said to cost just ₹9,000. With all due credit to the cheaper and efficient Plasma panel technology, Panasonic joins the bandwagon of 3D TV era with a bang, by unleashing a wide-array of FULL HD 3D TVs into the Indian market. Two Panasonic 3D Full HD TVs (TH-P65VT20D and TH-P50VT20D) are priced at ₹3,79,000 and ₹1,99,000, respectively.

There are three variants to 3D technology – Line by line method, Checkered sampling method and Frame Sequential technology. The line by line method was used to draw stereoscopic images (left and right) sequentially one below the other, by dividing the screen into lines leading to blurred after-images while retracing a new image.

In the checkered sampling method, the screen was divided into a dot matrix, with stereoscopic images laid out as pixels in a checkered pattern. The result was compromise in the pixel density of the final output, wherein the 3D image resolution nose-dived to half the resolution of the original HD image, leading to loss of image clarity and out of focus issues.

Frame sequential technology merges two stereoscopic images with the use of specially designed 3D Eyewear allowing optimum light to pass through the eyes and also retain the light intensity until the next image is boosted.

TH-P65VT20D (₹3,79,000) and TH-P50VT20D (₹1,99,000)

Panasonic cleverly adopted the Frame Sequential technology into its new breed of FULL HD 3D TVs, that promise to capture your imagination and take you closer to the virtual realism of 3D world!

The "Advanced technologies", as termed by Panasonic are as follows:

NeoPDP 3D: It has much higher refresh rate than normal LCD displays and can contribute to higher luminescence levels without banding. The result is crisp and high-clarity images even across the borders and edges.

Quadruple luminous efficiency technology: It contributes to boost the images on the plasma screen to full brightness in 1/4th the time. This process eliminates the lack of brightness in dark scenes or night scenes that could result in loss of image clarity, by constantly refreshing the screen brightness.

Eyespeed 3D drive technology: In order to adopt the frame sequential technology of FULL HD 3D, each image has to be processed in under 1/120th of a second. Hence, in order to maintain the luminescence for such a fast processing, the luminescence time had to be reduced which could lead to lower brightness levels. So, the luminescence time was reduced by increasing the luminescence intensity at periodic intervals to maintain an uniform brightness level throughout.

Cross-talk Reduction Technology: To eliminate the major drawback inherent in conventional 3D systems, Panasonic implemented two new technologies called, "fast-decay R and G phosphors", which reduce the afterglow effects to 1/3. Thus, leading to crisp and clear 3D images sans the afterglow effects.

With all due credits, Panasonic is rightly headed towards the road to the future! On a positive note, let's hope that every household is blessed to embrace the might of 3D technology in its full glory...

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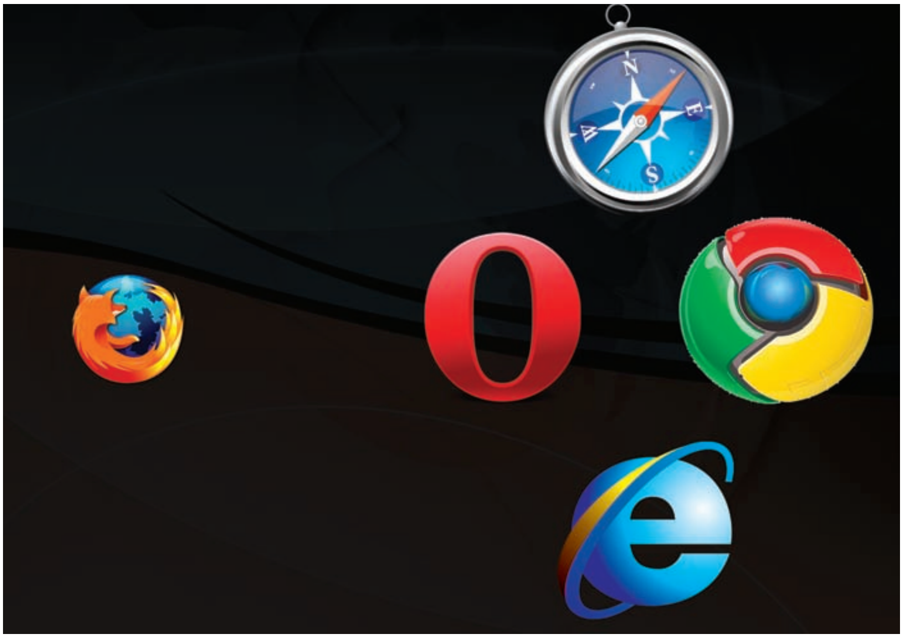

FIREFOX: What went wrong?

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

To put the above question into context we need to take a small walk down memory lane. Back in the day, IE was the only browser around and then from Netscape's ashes rose Firefox, one of the most successful open source projects in history. It was a browser that was more secure, customisable, but more importantly made by geeks, for geeks. Mozilla's Firefox hasn't looked back since then, becoming the browser of choice for anyone who had a little more sense than a featherbrained emu. Internet Explorer's world domination came to a grinding halt and it started loosing market share rapidly.

Cut to today and you have a very different scenario. Firefox faces competition on many different fronts. Google's Chrome has come a long way since its initial buggy, crashy days. Opera, which was side-lined for a long time, is back with a bang. IE 9 is supposed to be more secure and most reports around suggest "it's not bad". Then there's Safari; that's it, it's just there. And all of them have added extension support which for a long time was Firefox's biggest USP. If you've noticed all of these competitors have slowly but surely broken down each of Firefox's prime features – personalisation, performance, and security.

> A few years ago we waited for it to become the biggest browser ever. Today... not so much

The reason we noticed something was wrong was because out of all machines operating in the Digit office right now, only one was running Firefox as the default browser. With many of the members of Team Digit being self-confessed fanboys at one point or the other, this was a bit unnerving. Other than that we've had our ear to the ground and caught murmurs of preference slowly but surely shifting away from Firefox. We decided to check up on some statistics to corroborate our hunch. According to sources such as NetMarketShare, Firefox has been on a steady decline - from a global share of 24.43 per cent in Jan 2010 to now 22.83 per cent in October. Two percentage points may not seem like much, but it translates into a huge actual drop. This is even more glaring when contrasted with Chrome which has been steadily on the rise – nearly doubling its market share in the same period (from 4.63 per cent to 8.50 per cent). On a side note, we'd like to mention unknown but wildcard entities like RockMelt – the new 'social' browser – are also entering the fray. But what about India you may ask? The Indian market is a little slower to react to global trends. The story isn't drastically different. According to StatCounter the market share for Firefox has gone from 32.98 per cent in October 09 to 33.12 per cent in Oct 2010. At the same time IE declined by about 10 per cent, and Chrome gained almost the same. What this could possibly mean is that IE's loss converted straight to Chrome. Could this have something to do with Google placing a full page print ad in India's most widely read daily? And what has caused this small but steady erosion from Firefox to other browsers?

From a usability standpoint, we decided to list out few of the things that go against Firefox in the current scenario.

Speed: We did a "hunt for the fastest browser on earth" some time back on thinkdigit.com (http://bit.ly/aSY5wx) that ran contenders through a series of tests and benchmarks including Acid 3, Dromaeo, SunSpider, V8, CSS Selector, PeaceKeeper, JSNES Rendering, real

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Google Apps

Jetpack APIs
Now rechristened The Jetpack SDK, it's an environment for building Firefox add-ons using common web technologies

Firefox Sync
Allows you to access your history, passwords, bookmarks and even open tabs across all your devices. Wonder if it'll sync extensions as well like Chrome sync?

world tests on JavaScript heavy web sites such as Google Wave, Threadsy and even a bit of Nuclear radiation for good measure. The result read something like this "Opera gives us a clue to how much improvement is possible in a browser's speed through native code generation. Opera 10.50's claim for being the 'fastest' is not very far from the truth. If you go by numbers though, Chrome won – whether the stable version or the developer version, Google Chrome beats its competitors more often than not, and is the fastest browser out there" – as per the date of the test, of course.

Extensions: Everyone's got them now! And to be honest the Chrome community is just as vibrant. The extension web site for Chrome has a more social feel to it. There's categorisation, a rating system, commenting and we wouldn't be wrong if we said most Firefox addons/extensions have now been ported to Chrome. Opera extensions are also growing steadily too. The best part about Chrome extensions is that they don't need a restart to install, and have the ability to pop out on the same screen.

Startup time: A minor but insanely prickly problem with Firefox. Historically.

Perception: This of course does not have anything to do with actual usability but Firefox is no longer considered by many to be the light, renegade alternative that it once was. Besides, is Webkit now increasingly becoming the layout engine of choice? Flock, the social browser which started off as browser variant based on Firefox, has now moved to Chromium.

At this point we decided to ask the Mozilla Foundation some some difficult questions. Amongst these were also things like specific plans for India, whether they have plans to go back to the drawing board with respect to the code, and plans regarding Ad Spends and OEM tie ups. The response we got was enlightening to some extent, but in parts read like boilerplate marketing spiel. You can find excerpts of this in the box above. And we kid you not regarding the spokeperson's title – it's actually "Storyteller". This wouldn't surprise you once you go through the responses.

Q&A with Mozilla

Mozilla's mission is to promote choice and participation on the Web, not gain market share. By those measures, this year has been an amazing success for Mozilla, as we continue to grow and innovate. Firefox 4 (which is currently in the beta cycle) has awesome new features like Panorama, hardware accelerated browsing, and Firefox Sync for end-users; the new Jetpack add-ons API, WebGL, Open Audio and Video, CSS3, HTML5, and more, for designers and developers; and new security features like Content Security Policies and HTTP Strict-Transport-Security that will help make the Web safer for everyone.

We will continue to improve Firefox's performance. Competitive pressure on performance and stability is good for everyone and we welcome it. Our hardware acceleration and Jagermonkey JavaScript engine bring a new level of performance to the Web for users and developers. Through Mozilla Labs, we will continue to innovate and experiment with great new features like awesome one-click social sharing such as Mozilla Labs's F1 experiment. We'll ensure that Firefox's Add-on ecosystem stays ahead of the pack with the deepest and most powerful extension platform, as well as fast and easy extension creation with Jetpack APIs. Through projects like Mozilla's Open Web App ecosystem proposal, we'll make sure that everyone, not just Mozilla users, will have a better Web application experience.

We will continue to make Firefox available on more platforms and in more languages and we will continue to build an enthusiastic community of supporters who, by word of mouth, will spread Firefox to new markets and new users. We have reached 400 million end users across 80 languages without traditional advertising methods.

We've stepped into services in a big way with features like Firefox Sync. And we've built an amazing new version of desktop Firefox that's going to set a new bar for performance, features and fun. We've added tens of millions of new users this year and with the streamlined and blazing fast new Firefox 4 we hope to see that that growth continue to accelerate.

Asa Dotzler, Mozilla's Spokesmodel and Storyteller

PLAY!
Exciting prizes to be won!
Head over to page 90 and 91 to participate in some awesome contests...

So we decided to do some digging and find out what the techie community is saying. On Quora.com, the big daddy question-answer knowledge engines, we found an interesting discussion started by a head on question: "Will Firefox have double-digit market share in 3 to 5 years?" The responses were interesting enough, but more so because of who the respondents were. John Lilly who at the time of answering the question was the outgoing CEO of Mozilla as expected said "I'm confident that it will. Product is getting better all the time, and especially with 4.0 approaching in the fall," In this same question answer thread, one of the founders of Firefox, Blake Ross is reported to have answered negatively. (as reported on TechCrunch and ZDnet) "I'm pretty skeptical. I think the Mozilla Organization has gradually reverted back to its old ways of being too timid, passive and consensus-driven to release breakthrough products quickly," he had said. We couldn't find the answer on the Quora page has perhaps since been removed from there.

Another interesting response on Quora was from Chris Bader the co-founder of Treehouse, an iPhone based photo sharing service. He said, "It would take a major swivel for Firefox to actually continue to grow, as Blake says, they have become passive. From a usability standpoint, Firefox has become a slow memory hog and I find myself using Chrome now"

Well, to conclude, from what Asa Dotzler from Mozilla said to us, and John Lilly wrote on Quora, much of their hopes are resting on Firefox 4.

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Dig deeper

Don't know how deep Facebook privacy goes? Read this post by the New York Times http://goo.gl/MhcF

Default privacy?

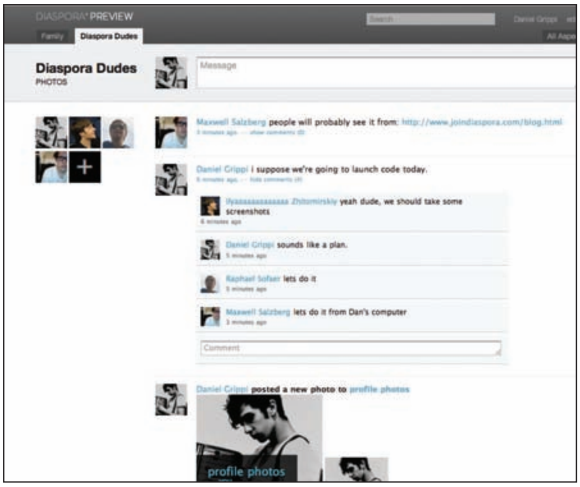
New Facebook features give you a default privacy setting which you are expected to find out about and change. Very interesting http://goo.gl/hv9o

Diaspora

Own your social network

Rudresh Jariwala
rudresh.j@thinkdigit.com

With the recent piracy infringement by Facebook's apps giving out information of users' and their friends, one can't help but wonder: is your online identity really safe on centralised social networking sites? Worst part is, most people are unaware and simply choose to remain ignorant of the fact that over ten million users' have been affected by this gross invasion of privacy. Now, we are not suggesting that you just close down your beloved Facebook accounts' simply because of such a calamity or that this is set to be the next 'Facebook killer'. Instead, this is an introduction to an alternative that has been looming for a while now and is starting to generate some momentum.



Maxwell Salzberg people will probably see it from: http://www.joindiaspora.com/blog.html

Daniel Grippi I suppose we're going to launch code today.

Ilyaaaaaaaaaaaa Zhitomirskiy yeah dude, we should take some screenshots

Daniel Grippi sounds like a plan.

Raphael Sofaer lets do it

Maxwell Salzberg lets do it from Dan's computer

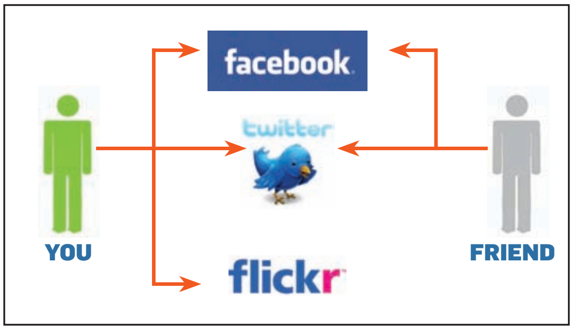
Daniel Grippi posted a new photo to profile photos

A sneek peek into the Diaspora interface

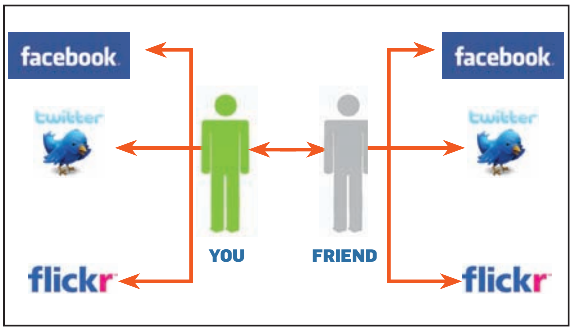
Enter

Diaspora, the open source, decentralised social networking platform. What does this mean? Well to put it in simple words, this basically means that you are responsible for hosting your own content and you decide who you wish to share it with. The hosting could be on a webserver that's owned or rented by you, your smartphone or you could just run it from an old PC in your basement. It was started by four guys over at NYU and they needed to get $10,000 in seed money but ended up getting a whopping $200,000 in donations including a contribution from the founder of Facebook, Mark Zuckerberg.

It essentially solves a multitude of problems. Firstly, you are in charge of your content and not some 'corporation' that could use your content in a malicious or inappropriate manner. Secondly, the traditional model involves you having an account on the same hosted service as your friend to view his details on that particular service. So if you don't have a Flickr account, you can't view their details. This resolves that problem by making a direct connection between your friend and you, thereby bypassing any hosted service and letting you listen to your friend's Last.fm playlists even if you don't have a Last.fm account. Nifty eh?



The centralised model



The decentralised model

It does have it's fair share of drawbacks as well, private hosting being the biggest of them all!

Diaspora is currently in it's alpha stage and the developers and open source community still has many a man hour to pour into it till it becomes commercially viable. But if you really must scratch your itch of trying this new cross-platform social network, you will find all the information you need over at the Diaspora Wiki (http://goo.gl/a6Ma).

There are other players' operating in this same field such as OneSocialWeb and if rumours are anything to go by, then Google's next attempt (third is it?) at a social networking platform supposedly going by the name GoogleMe will probably be the next show stealers. For now, all we Facebook-ers can do is be patient and hope that no hacker taps into the database and steals all our lives! d

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Friendster
The trend of using computers for social networking actually started with the social networking web site called Friendster, which was launched in 2002 and continues to have millions of users

Twitter App for BlackBerry
The Twitter app for BlackBerry was launched in April this year. This app provides real-time push of Twitter messages. offers camera and photo gallery integration and much more

For students, by students and of students...

Billionaires in the making? We present two inspirational stories for Indian students...

Anoop Verma
readersletters@thinkdigit.com

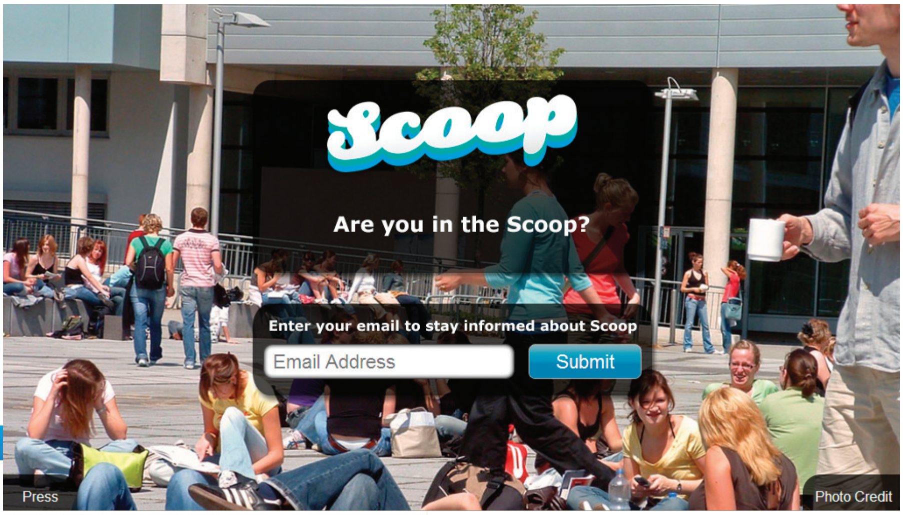
The fact that Larry Page and Sergey Brin had been students at Stanford when they conceived of Google has been chewed and regurgitated so many times that now it has started sounding like a monumental cliché. Then there is Mark Zuckerberg who gave birth to Facebook while he was still in college; Bill Gates and Michael Dell are also famous for having started very young. So can we then make the case that in order to make a mark in technology, you need to start young? The cycle of innovation in the tech industry does seem to favour the fast movers. Now, a few university students have come up with savvy business strategy of reaching out to smartphones users through two mobile apps – Fountainhop and Scoop.

Though these applications are yet to reach out to larger community of students, they have already created an ample amount of buzz. Could this be the Next Big Thing of the tech world? As of now the target audience is confined to college circles, but then even Facebook used to be a college-only phenomenon once. Like Facebook, Fountainhop and Scoop too could one day expand to rope in millions of users from every walk of life. The thing is that smartphone usage is on the rise; in colleges almost every student worth his salt flaunts a smartphone, a few lucky ones even flash a latest iPhone or one of those Android powered devices. Applications like Foursquare, which provide location based networking mostly through smartphones, have already made a mark.

Fountainhop and Scoop must also be seen in light of the fact that users these days are constantly looking for new ways by which they can share their ideas and build their networked groups. The campuses of larger universities have turned into a laboratory where new ideas and theories on networking can be experimented with before being released to rest of the society. If Fountainhop and Scoop are successful in attracting large number of users in the months to come, then they will become ripe for the next stage of their development.

Fountainhop

You can reach Fountainhop by pointing your browser to http://www.fountainhop.com/public.php. The main idea behind the application is to let smartphone users in college be part of a closely networked community; everyone is seamlessly updated about campus events. The four co-founders of this application are Zavain Dar, Salik Syed, Stellios Leventis and Nikil Viswanathan. The short profiles that they have posted on the website make them seem like typical youngsters, but it is also clear that they are gearing to make a mark in highly competitive mobile apps space. So how did they come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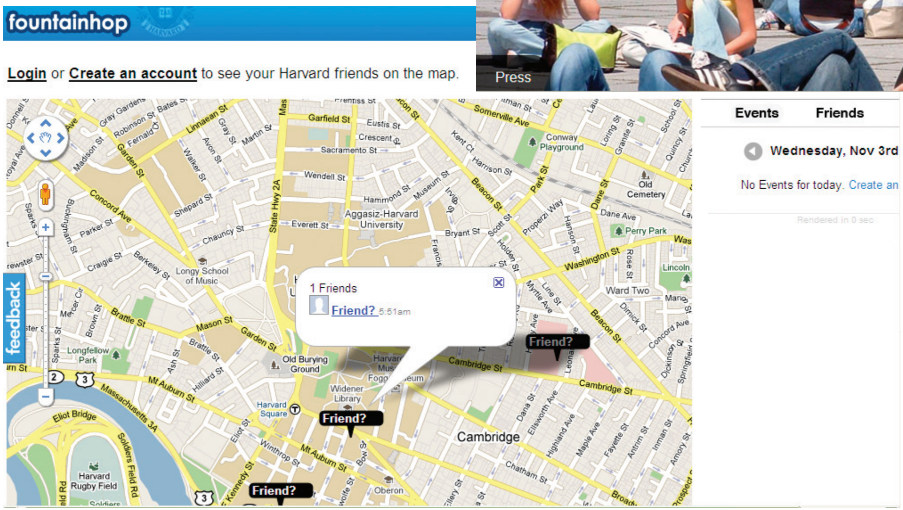
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INTERVIEW

NIKIL VISWANATHAN
CO-FOUNDER, FOUNTAINHOP

What inspired you to start Fountainhop?
Fountainhop actually started off as a class project for one of my entrepreneurship classes at Stanford and we ran with the idea over winter break after the class ended. We realised that even with all of the amazing technology we have today, there is still no good way for college students (and people in general) to find out what's going on around them especially in terms of events and their friends.

Why Fountainhop?
Fountainhopping is a tradition here at Stanford – basically we run around and jump around and play in the fountains at all times of the year. It's a lot of fun and one of my favourite traditions at Stanford. The first day of classes my freshmen year, our dorm staff woke us all up at 5 AM and our entire dorm went jumping and playing from one fountain to the next through all of the major fountains on campus – it was absolutely amazing!

Right now Fountainhop seems to be confined to college students. What about the rest of the world?
We'll see; all we care about right now is that it's useful to college students.

What role did your education play in developing Fountainhop?
It's been absolutely invaluable; I've gotten a lot of experience building various different pieces of software and am extremely glad to have had this opportunity to study here at Stanford. Really, it's been all about the people though; the friends that I've met here have been immensely inspiring and have made me reach out to try my best.

Any inspiring words for college students in India?
Just go for it. The best advice I've gotten is to just do it. Build something, try it out, and try launching it. If it works, great! If it doesn't work you just got a lot of experience. Seriously just try building something, release it and see how it goes, that's my main piece of advice.

up with this quaint name "Fountainhop" for their application? In the blog on their website, this is how they try to explain the significance of the term – "The collegiate tradition to tour the college by exploring and jumping in all the fountains the campus has to offer — literally hopping from one fountain to the next."

Fountainhop makes networking easy by allowing users to automatically make their locations public on the app itself, or by posting a status update on Facebook profile. At all points of time, the users, students in this case, enjoy complete control on how much information they want to reveal and how much they want to safeguard. When quizzed about his foray into mobile app space, Zavain Dar, who is a student at Stanford says, "I'm particularly a fan of just doing it." Another co-founder of Fountainhop, Nikil Viswanathan, who is also at Stanford, elaborates, "Currently we don't have a business point of view, we just want to make something that's extremely useful to college students. We have started offering Fountainhop for free and we do hope that from here it will spread to other colleges around the country and beyond."

Unlike the smartphone application called Foursquare, which is open to anyone, Fountainhop requires a netID of Harvard, Princeton or Stanford for users to post events. All the updates get automatically sorted according to the time, and they are colour-coded by category to make it easier for users to understand their relevance in a quick and easy manner. However, a lot of tweaking is still going on in the application and it is still too early to say how things are going to evolve. You might even be confronted with a completely different looking avatar of Fountainhop by the time you read this.

Too busy Fountain hopping to work?

Scoop

When you point your browser to http://inthescoop.com, you're faced with a rhetorical question, "Are you in the scoop?" As of writing this, the application is still under development, but it might be released in a few weeks. According to a report published in VentureBeat, a venture-capital investment firm owned by Google CEO Eric Schmidt has made an investment in Trumpet Technologies, the Palo Alto-based start-up currently

The Scoop team hard at work

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Inspire the Next

engaged in developing Scoop. If it is the profile of the financial backers that makes an impression on the critics and users, then by garnering funds from someone like Schmidt, Scoop has already entered into the big league. Corey Reese, the CEO of Trumpet, has recruited Nick Simmons and Michael Akilian, two inimitable college students to develop Scoop.

Nick Simmons says, "In the world of Facebook and Twitter we still find out about what is happening on campus predominantly through word of mouth. This information should be spread more efficiently and should be at our fingertips. Scoop allows people to talk about this information in real time." Once a sufficient number of students are armed with smartphones, which are running this application, then it will become easy to hold a campus wide conversation. Everyone can be updated about formal or informal student events immediately. Scoop is also thought to be quite interactive as compared to other mobile apps. Initially Scoop will be launched as an iPhone application, but down the line the product is expected to become compatible with other popular smartphone models. While taking about the expansion strategy for Scoop, Nick Simmons says, "We would like to launch Scoop at one school initially. Then we want to learn from our mistakes, tweak the service to respond to user feedback, and launch at campuses across the United States and hopefully other countries!"

PLAY!
Exciting prizes to be won!
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The expansion strategy that those at the helm of Scoop are envisaging is a lot like the one followed by Facebook during the initial days of its inception. The application is going to be rolled out in many campuses across America and according to the feedback that is forthcoming from students the application will be tweaked and improved. Quintessentially this is going to be another case of students building a service for students. Finally when everything is set in place, the application will become available to the much larger section of humanity living outside the college campuses. The home page of Trumpet Technologies (http://www.trumpet.io) carries this interesting slogan, "Stay Hungry, Stay Foolish." As of now the promoters have not explained what this slogan means, but the company's mission is listed as, "Mobile Local Search."

There is no doubt that as 3G and 4G networks continue to expand across the world, the popularity of smartphones will skyrocket. Mobile apps such as Fountainhop and Scoop must be seen as a harbinger of a future, which is just round the corner. This is a future in which people will be extremely mobile, and yet they will be closely networked with their loved ones through some innovative applications running on their smartphones. But what's most promising is that the primary users of the apps are the ones developing them in the first place!

A CHAT WITH NICK SIMMONS, SCOOP

What inspired you to start Scoop?
We've seen several online communities catch on at my school and at my friends' schools. This has made it clear that students want to talk about what's happening on their campus.

What does Scoop stand for? We mean why is the application called Scoop?
When we decided on a name for our product we were not completely finished defining the product--and it will continue to evolve as we receive feedback from users. Therefore, it is imperative to think of a name that accurately describes the scope of the product in a compelling way. The word "scoop" makes me think of a service that provides me with useful information in a fun and social way. At its core that is what we want our service to do.

Right now Scoop seems to be confined to college students. Is there any chance that in future it will become a global phenomenon like Facebook?
We are focused on designing an exciting product for college students at the moment. But, as I mentioned earlier, Scoop's core goal is to provide users with useful information, about what is going on, in a fun and social way. It is not hard to envision a future in which Scoop provides this service to any group of people, whether college students, high school students, people that live near each other, etc. Scoop is about creating a conversation for a community of people, not necessarily just college students.

How has the education that you have received helped you in developing Scoop?
The most helpful aspect of my education has been the social one, not the academic one. My friends on campus and affiliations with certain groups really helps me to spread the word about Scoop and make sure that the right people are using it.

If a college student in India wants to start a social networking application for mobiles, what advise would you like to give him?
Create a product that is simple and social! Users love simplicity, especially in a new service and, as Facebook has taught us, they love to be social.

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Speed up your life

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Windows
SEVEN
Seven

Windows 7

With Windows 7 on some of our older PCs, this seemed like as good a place to start as any

Siddharth Parwatay
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While Windows 7 may be far better designed for speed than Vista, there are still times when you find yourself drumming your fingers on your desk waiting for something to happen. If you have slightly older hardware you'll face this more often, but hey even if you have decent gear nothing satisfies the performance junkie in you, right? Here's a set of tweaks that will kick your sluggish desktop into a performance PC.

Disable indexing

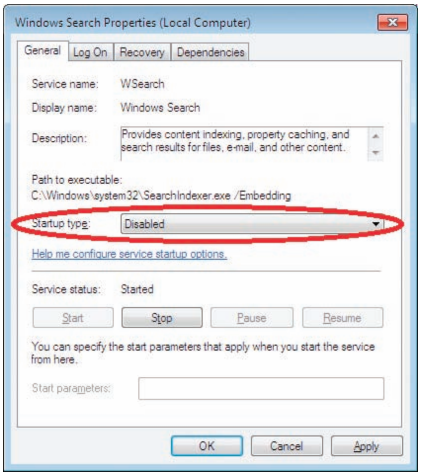
This feature provides content indexing, property caching, and search results for files, e-mail, and other content. However this consumes resources and if you're not one of those who uses the search feature a lot, you can easily disable it. Right-click Computer in the Start Menu and click on Manage. Next find the Services option under Services and Applications. Look for "Windows Search" in the list of services. Right-click and open properties for this service. Under start up type choose "Disabled".

Chuck out Aero

You needn't give up your beloved Aero eyecandy if you don't want to. But if you don't have a graphics card with compute power to spare it's usually recommended that you do. Right-click on the desktop and click Personalize. Now choose the Windows 7 basic or Windows Classic theme.

Use Ready Boost

If you have a 2GB (or more) Flash drive lying around, you can use it to speed up your computer using Windows ReadyBoost. Once you insert the Flash drive click on Speed up my system in the Autoplay. Now you can choose to dedicate the entire drive or part of it to this function.



Windows Search Properties (Local Computer)

Service name: WSearch
Display name: Windows Search
Description: Provides content indexing, property caching, and search results for files, e-mail, and other content.
Path to executable:
C:\Windows\system32\SearchIndexer.exe /Embedding
Startup type: Disabled
Help me configure service startup options.
Service status: Started
You can specify the start parameters that apply when you start the service from here.
Start parameters:

It is recommended that you use twice the capacity of your onboard RAM. This does provide some improvement in speed but it's in no way like adding 2 GB of RAM.

Turn off unused features

In the start menu simply type "Turn Windows features on or off". Click the result that comes under control panel. Here you'll see a list of features that are checked/unchecked. We recommend switching off Tablet PC features, Windows Gadgets Platform, etc.

Give it more juice

Click on power options in the Control Panel. Now under preferred plans you will find a Change Plan settings link next to the plan that is currently in use. Now click on Change Advanced Power Settings and use the drop down to select High Performance. This will give you the additional power needed to perform resource intensive tasks. The difference may not be noticeable on desktops but more on Laptops that are plugged into a powersource.

Services begone

Windows 7 has a lot of services that can quite safely be turned off without loosing out on any functionality. Who the heck needs "Adaptive Brightness" anyway if you don't have ambient light sensors? To access services panel, and how to disable refer Disable Indexing tip above. However its

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best to set it to Manual rather than Disable so that Windows can invoke the service if it ever requires it. You can read the description of particular services and decide for yourself.

Adjust visual effects

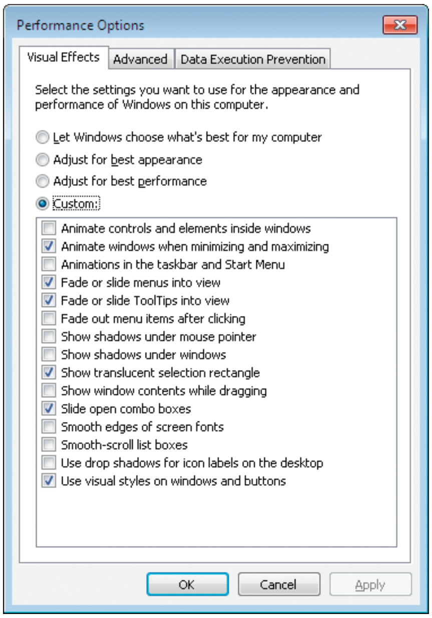
Right-click Computer in Start menu and click Properties. Click Performance Information and Tools at the lower left corner. Next click Adjust Visual Effects which you'll find in the Upper left corner. You'll see a surprising level of customisation options. If you choose "Adjust for best performance" you will have a perfectly optimised system that looks like Windows 98! You don't want that. Most likely the option selected by default would be "Let windows choose what's best for my computer". Like heck! You know better, right? Choose custom and keep a few items selected for a balance of look and performance. We recommend keeping the last option selected "Use visual Styles on windows and buttons".

Tip: Clean up startup

For quicker boot up time, type "msconfig" in the start search bar and move over to the Startup tab. Here you can deselect programs that you don't want to launch in startup. You'll have a lot of redundant ones for sure. Also, remove redundant programs entirely from Control Panel>Add remove programs.

Page file tweaks

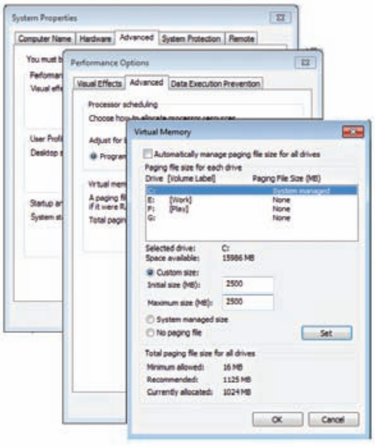
A page file is virtual memory that almost all applications need to use. According to Microsoft "when the memory that is in use by all the existing processes exceeds the amount of available RAM, the operating system moves pages (4 KB pieces) of one or more virtual address spaces to the hard disk, thus freeing that RAM frame for other uses." So if you have a lot of RAM (say 4GB) the dependence on page file reduces slightly, but for systems that are RAM deficient the dependence on the page file will increase. In most systems that have less of RAM, the hard disk space is comparatively less of a scarcity. In which case you can go ahead and keep a large page file. In theory, if you remove the dependence on virtual memory the system should become faster since read/write times for physical memory are much less compared to HDD read/write times. But you will compromise on stability when a program goes into a crash cycle and need a dynamic memory dump in the form of virtual memory. To change Page File settings hit [Win] + [Pause|Break] key > Click on Advanced System Settings > Advanced Tab > Performance > Settings >Advanced Tab > Under Virtual Memory click change. Choose a custom max and min size in MB. This may be about 1.5 times your physical RAM. If you have two hard disk drives it is recommended to have another page file in the primary partition of that drive.



Select the settings you want to use for the appearance and performance of Windows on this computer.

○ Let Windows choose what's best for my computer
○ Adjust for best appearance
○ Adjust for best performance
● Custom:

☐ Animate controls and elements inside windows
☑ Animate windows when minimizing and maximizing
☐ Animations in the taskbar and Start Menu
☑ Fade or slide menus into view
☑ Fade or slide ToolTips into view
☐ Fade out menu items after clicking
☐ Show shadows under mouse pointer
☐ Show shadows under windows
☑ Show translucent selection rectangle
☐ Show window contents while dragging
☑ Slide open combo boxes
☐ Smooth edges of screen fonts
☐ Smooth-scroll list boxes
☐ Use drop shadows for icon labels on the desktop
☑ Use visual styles on windows and buttons



☐ Automatically manage paging file size for all drives

Paging file size for each drive

Drive [Volume Label]	Paging File Size (MB)
C:	System managed
E: [Work]	None
F: [Play]	None
G:	None

Selected drive: C:
Space available: 15986 MB
● Custom size:
Initial size (MB): 2500
Maximum size (MB): 2500
○ System managed size
○ No paging file

Total paging file size for all drives
Minimum allowed: 16 MB
Recommended: 1125 MB
Currently allocated: 1024 MB

Page file tweaking

Task bar times

Some users operate at the pace of the OS while some are actually slowed down by the OS. For instance, the half a second wait for popups to appear for task bar applications is a little too much. Don't like it? Then change it, we always say.

1. Type `regedit` in the Start Menu search. Press `[Enter]`
2. Navigate to: `HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Advanced`
3. Right-click and select Create a new DWORD (32 BIT). Name it `ExtendedUIHoverTime`
4. Right-click the DWORD and modify time to `50`. (value in milliseconds)

Explorer to My Computer

When we click on Windows Explorer in the task bar it opens in Libraries. This gets a bit annoying as we're used to starting off from My Computer. You can change this by typing "Windows Explorer" in Start Menu search, right-click on it and go to properties. In the Target field paste the following code "`%SystemRoot%\explorer.exe /e,::{20D04FE0-3AEA-1069-A2D8-08002B30309D}`"

Registry cleaning

Using a registry cleaning software helps remove redundant entries and hence reduces start up time. There are many free system optimisation and maintenance programs out there (You can find many of these on our DVDs as well). For this illustration we'll use CCleaner. Once installed, run it and go to the registry tab. Click scan issues which will give you a list of problems with the registry. Next tick issues you wish to fix and click Fix selected issues. It's always recommended to take a back up of the registry while doing so.

Misc speed tips

The superbar has combined launching applications with their task bar icons. This is a great improvement in terms of usability but many people still go to the start menu to launch an application. The reason for this is that if the application is already open it will simply open the window that's already running. A simple trick can save a few seconds. You can start a new instance of a program by simply holding down the `[Shift]` key and clicking its icon in the task bar.

Often we need to get under the hood by going into the command prompt. Simple tasks like changing the attributes of a file is just one example. In such cases navigating to a particular folder is a hassle you can avoid. Hold the `[Shift]` key and then right-click in any folder. You'll see new right-click options including "Open command window here." d

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Ubuntu 10.10

Got off on the wrong foot with Ubuntu? here's how you should have done it...

Kshitij Sobti
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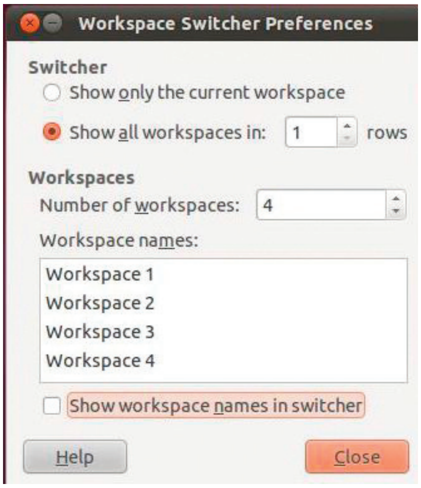
While multimedia playback and gaming might not be Linux's strong suits, sheer productivity is something it excels at. However if you thought that you had reached the peak potential just by switching to Linux, you are dead wrong! Even once you have gone Ubuntu, there are many things that you can do that will speed up your work environment even more:

5. Speed up window management

Those who switch from Windows often forget that Linux has brilliant inbuilt support for virtual desktops. Virtual desktops let you segregate the work you are doing in virtual workspaces such that there is minimal visual clutter. You can make segregations based on whatever suits you best.

Along with virtual desktops, you can use quick shortcuts to get to a task fast.



Switcher

○ Show only the current workspace

● Show all workspaces in: 1 rows

Workspaces

Number of workspaces: 4

Workspace names:

Workspace 1
Workspace 2
Workspace 3
Workspace 4

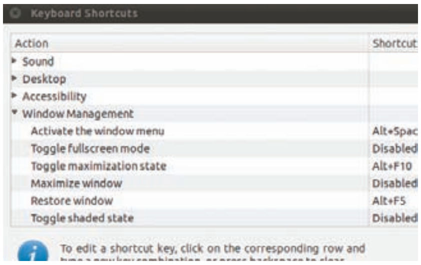
☐ Show workspace names in switcher

Right-click on the Virtual Desktop Pager near the bottom-right of screen and click on "Preferences". Change the number of workspaces to suit yourself

For example, moving to the next / previous virtual desktop in Ubuntu 10.10 is achieved using the `[Ctrl]+[Alt]+ Right / Left keys`. Additionally, you can move to the next / previous desktop taking the current windows with you by using the `[Ctrl]+[Alt]+[Shift]+ Right / Left key` combinations.

4. Optimise desktop effects

Visual effects are not merely eye candy, they can be a huge help in helping us visualise our tasks, and can help us work faster. For example, enabling the Desktop Wall effect allows you to see all your virtual desktops in one view, giving you quick overview of your active windows. This way you can quickly switch to an application on any desktop, and in this meta-desktop mode, you can move your windows around in your virtual spaces with greater ease.



Action	Shortcut
▸ Sound	
▸ Desktop	
▸ Accessibility	
▾ Window Management	
Activate the window menu	Alt+Spac
Toggle fullscreen mode	Disabled
Toggle maximization state	Alt+F10
Maximize window	Disabled
Restore window	Alt+F5
Toggle shaded state	Disabled

To edit a shortcut key, click on the corresponding row and

You can change shortcuts for different tasks or create a new shortcut for a custom command from here

While such effects do increase your productivity, others such as wobbly windows, are purely for show, with little utility whatsoever. If you do not care for such visual effects, you can turn these off if you want.

Some actions such as opening / closing, minimizing / maximizing windows, can be animated in Ubuntu. While this does give the appearance of a smoother and faster desktop, as something is always in motion, the animations themselves add precious milliseconds / seconds to your application launch times. Instead of prolonged animation durations, you can make your system both appear faster, and work faster by reducing these animation durations.

To change these settings and fully juice out your visual effects, you need to install the significantly more advanced Compiz configuration manager. It will let

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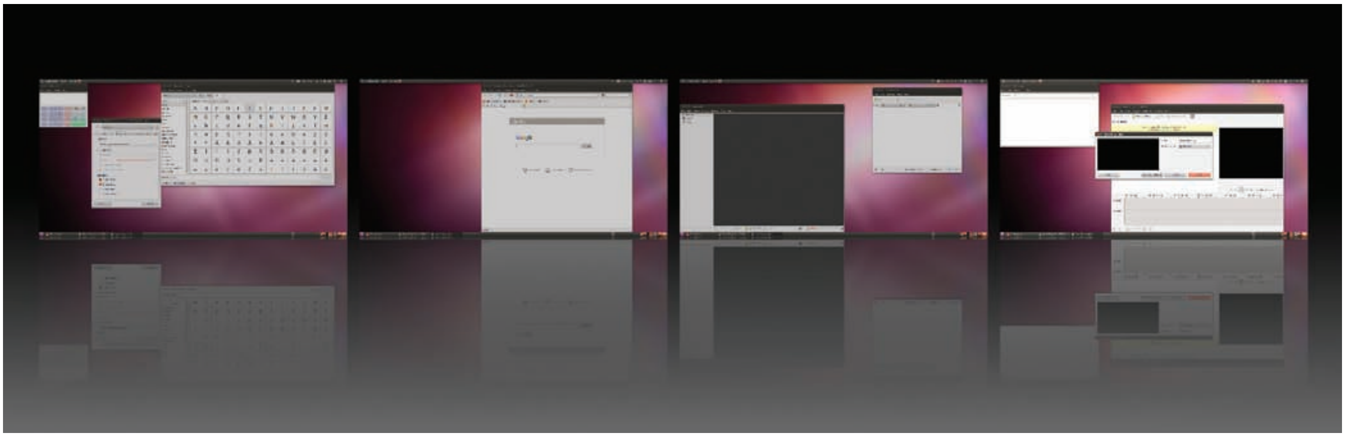


If you have visual effects enabled, this feature can be accessed by pressing [Windows] + [E]

your tweak these settings to your hearts content. You can install it by searching for “ccsm” in Ubuntu Software Center, and installing the “Advanced Desktop Effects Settings (ccsm)” package.

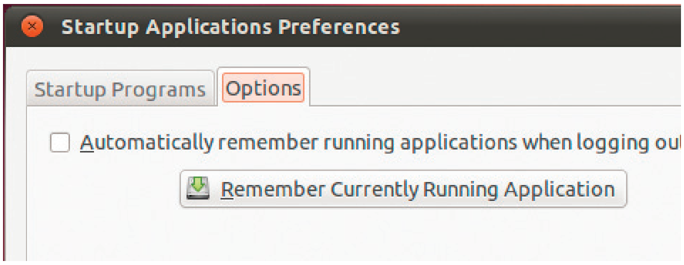
3. Remove system bloat

Bloat! In Linux! NO! We must be kidding!

Fact is, bloat has nothing to do with your OS, you can load up applications to the brimful, keep adding entries to your startup list, and end up slowing down your system considerably.

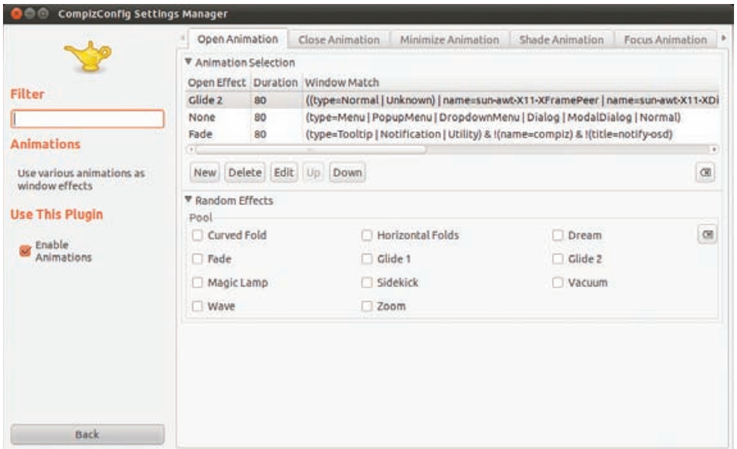
Some of these applications could be those that come preinstalled with Ubuntu. Some examples are UbuntuOne, and other Ubuntu social features. UbuntuOne is a great cloud storage solution, howevre it is a waste of resources if you are not using it, or using an alternative such as Dropbox or SpiderOak. If you are not using the bluetooth, or the social features of Ubuntu 10.10, turn them off!

Another way to cut on bloat is to remove bloaty software. For example you can remove OpenOffice.org and install Abiword and Gnumeric instead if you. While OpenOffice.org isn’t exactly bloat, but not everyone needs its extensive features, which add to its size and memory usage.


Startup Applications Preferences
Startup Programs
Options
Remember Currently Running Application

☐ Automatically remember running applications when logging ou

“System” Menu > Preferences > Startup Applications


CompizConfig Settings Manager
Open Animation
Close Animation
Minimize Animation
Shade Animation
Focus Animation
Filter
Animations
Use This Plugin
Animation Selection
New
Delete
Edit
Up
Down
Random Effects
Pool
Back

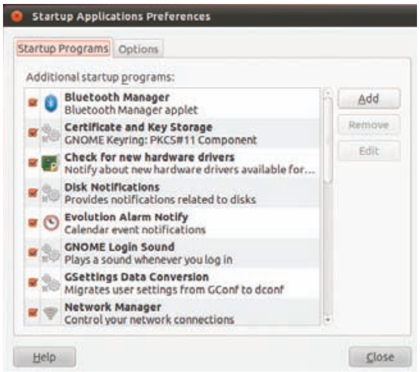
Use various animations as window effects

☑ Enable Animations

Open Effect	Duration	Window Match
Glide 2	80	((type=Normal | Unknown) | name=sun-awt-X11-XFramePeer | name=sun-awt-X11-XDi
None	80	(type=Menu | PopupMenu | DropdownMenu | Dialog | ModalDialog | Normal)
Fade	80	(type=Tooltip | Notification | Utility) & !(name=compiz) & !(title=notify-osd)

☐ Curved Fold
☐ Fade
☐ Magic Lamp
☐ Wave
☐ Horizontal Folds
☐ Glide 1
☐ Sidekick
☐ Zoom
☐ Dream
☐ Glide 2
☐ Vacuum

It might be a little complicated, but you can have extensive control over the timings using this setting dialog.


Startup Applications Preferences
Startup Programs
Options
Add
Remove
Edit
Help
Close

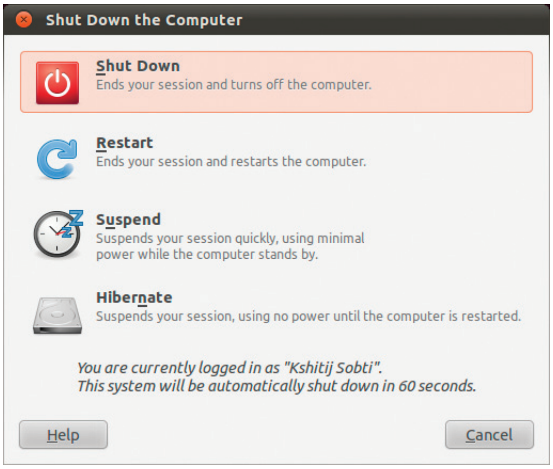
Additional startup programs:

☑ **Bluetooth Manager**
Bluetooth Manager applet
☑ **Certificate and Key Storage**
GNOME Keyring: PKCS#11 Component
☑ **Check for new hardware drivers**
Notify about new hardware drivers available for...
☑ **Disk Notifications**
Provides notifications related to disks
☑ **Evolution Alarm Notify**
Calendar event notifications
☑ **GNOME Login Sound**
Plays a sound whenever you log in
☑ **GSettings Data Conversion**
Migrates user settings from GConf to dconf
☑ **Network Manager**
Control your network connections

“System” Menu > Preferences > Startup Applications > ”Options” Tab

2. Make session management faster with Ubuntu

If you routinely find that every time you start your computer, you go about launching the same applications that were running when you shut down, you can turn on a feature in Ubuntu that will do this automatically for you. Using the “Options” tab on the same dialog used in (3).


Shut Down the Computer
Help
Cancel

Shut Down
Ends your session and turns off the computer.

Restart
Ends your session and restarts the computer.

Suspend
Suspends your session quickly, using minimal power while the computer stands by.

Hibernate
Suspends your session, using no power until the computer is restarted.

You are currently logged in as "Kshitij Sobti".
This system will be automatically shut down in 60 seconds.

[Ctrl]+[Alt]+[Delete]: The same options can be exercised using the menu in the Indicator applet

Or even better, why shut down your computer at all when you can suspend or hibernate it? Use these features generously as they will let you shut down and start up your computer nearly instantly.

Another thing you can do is turn on autologin for your account. Surely this is not advisable for everyone, however, those who are using their computer at home, in a single user environment, the boot process can be made just a little quicker if you don't have to type your password each time. Note that you do not need to remove your password entirely. Your password can still be used to lock your computer, during subsequent logins or while using "sudo", etc.

1. Use your pendrive as swap to emulate Windows ReadyBoost

Windows has a nice feature called ReadyBoost that allows your pendrive to be used as temporary swap space to boost the performance of you computer. Since pendrives have lower access times than hard disks, using your pendrive as swap can boost your performance. For this you will need to use a ReadyBoost-capable pendrive. Many pendrives available in the market today tout this support so you should be able to find out if you have one. While this will work with any pendrive, ReadyBoost capable pendrives work best.

There are two ways to do this. You can either use your entire pendrive as swap, or you can create a swap-file on your pendrive. We will assume you have mounted your pendrive at /media/disk

You might need to login as superuser or use sudo for these commands. First create a swap file using the "dd" command (if is input file, of is output file, bs is block size, count is block count):

```
dd if=/dev/zero of=/media/disk/extraswap bs=1M count=1024
```

This will create a 1024MB swap file on your pendrive.

Now you need to format this as swap:

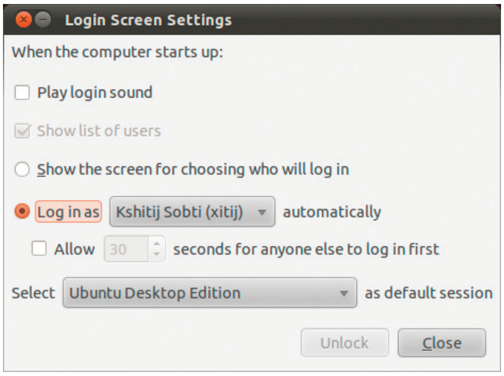
```
mkswap /media/disk/extraswap
```

Finally, we activate this swap-file to put it to use by typing:

```
swapon -p 32767 /media/disk/extraswap
```

Adding "-p 32767" gives this swap file the highest possible priority ensuring that it is put to use.

If you wanted to make your entire pendrive a swap drive, you can skip the first step, and simply use mkswap /dev/sdx1 where sdx1 is your pendrive device. In the last step you can again use this device instead of a file. Remember, this will destroy your data! It is better to create a large file instead, as the performance drop for not using the drive is not huge.



When the computer starts up:

☐ Play login sound

☑ Show list of users

○ Show the screen for choosing who will log in

● Log in as [Kshitij Sobti (xitij)] automatically

☐ Allow [30] seconds for anyone else to log in first

Select [Ubuntu Desktop Edition] as default session

"System" Menu > Administration > Login Screen

To turn the pendrive swap off in order to unplug the drive, use:

```
swapoff /media/disk/extraswap
```

0. Compile your own Linux kernel

Sooner or later you'll want to do the mother of all optimisations, a custom kernel compiled with your love. To get you started with this we have an entire article dedicated to the Linux kernel, and how to compile your own version. Turn over to page 135 in this issue for the article.

Now with your lean and mean Ubuntu 10.10 install you can boost your work output, as long as you don't let your Facebook addiction stand in the way. **d**

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"The BlackBerry Boys"

Speed up your BlackBerry-ing with 25 simple tips

Robert Sovereign-Smith
editor@thinkdigit.com

Although most BlackBerry (BB) users will praise their BBs to the high heavens, they will also secretly admit to being very frustrated at times with the inexplicable slowdowns, hangs and overall weird behaviours that BBs seem prone to.

We've thrown together a short list of tips and tweaks to help you get more out of your hardware, and yourself. The device we're using in our examples is the Curve 8520, which is probably the most popular BB out there today.

Speed up the device

1. Space has always been a problem with older BBs. Go to `Options > Status`, and see the amount of free memory. Typically, this should be at least 100 MB on modern Bbs, or at least 20 MB on older ones. It's displayed in bytes, so 100 MB is displayed as 102400000 bytes.
2. If you find that you're running out of space, go to `Options > Applications`, and look for third party applications that are no longer needed. Delete them. Also look for Add-ons, and delete the ones you don't need. Do not (and that's a big NOT) delete any core applications.
3. For some reason, RIM sets Memory Cleaning in BBs to "Disabled", by default. Go to `Options > Security Options > Advanced Security Options > Memory Cleaning`, and change the Status to Enabled. Also set the Idle Timeout to 2 minutes. Also set the Show Icon on home Screen setting to Yes. You will now see this icon, and can manually click it to clean memory when the BB starts acting sluggish.
4. Go to `Options > Memory`, and enable Compression. This may actually slow down a few things, like opening an attachment, but uses less memory, and results in a less sluggish phone.
5. Not many people know that BBs keep an event log of almost everything – quite useless for most of us. To access this log, hold down `[Alt]` and type out `[LGLG]`. Press the menu button and select Clear Log.
6. "Close. Seriously now, I mean CLOSE!" That's how you have to treat some apps in BBs. Instead of just navigating away from apps, press the `[BB]` button and select Close from the menu that pops up. This will prevent the app from just sitting in the background hogging memory.
7. If you surf a lot on your BB, remember to periodically clear the browser cache. In the browser, press the BB button and select Options. Go to Cache Operations and delete everything.
8. If all else fails, the three finger salute is needed. Most people will just pull out the battery and put it back in, but this is not necessary. Just hold down `[Alt] + (right) [Shift] + [Del]` together.

Speed up yourself

It's important to know some BB shortcuts:

9. `[Alt] + [Back Arrow]` = Application switcher – good for multitaskers, and seeing what apps are running, so you can close them.
10. `[T]` = Go to the top (of a page, a mail, almost anything)
11. `[B]` = go to the bottom of the page
12. `[Space]` = page down
13. `[Shift] + [Space]` = page up
14. Just hold down a letter for a second to capitalize it, instead of typing `[Shift] + [Letter]`
15. When typing, auto-correct can be used to avoid using `[Alt] + [M]` to get the fullstop. Just press `[Space]` twice instead.
16. In the browser, when certain pages just don't display correctly, just press `[Z]`. Switches between column view and page view.
17. `[Alt] + [Shift]` = Number lock. Good for typing numbers into an email or message.
18. In Messages, you can quickly use some codes to see only what you need. `[Alt] + [I]` = incoming items only; `[Alt] + [O]` = outgoing; `[Alt] + [P]` = Phone Calls; `[Alt] + [S]` = SMSes.
19. In Messages, again, use `[U]` to jump to oldest unread message. `[N]` = Next unread, `[P]` = Previous unread.
20. Press and hold a letter such as `[E]` and then scroll up or down to see the various characters associated with that letter. For example, when typing "déjà vu". No more boring Symbol menus.

Secret codes

Everyone knows `*#06#` to see their IMEI number, but BB has a few more tricks up their sleeves. Not very useful, these, but fun to try.

21. Hold down `[Alt]`, and type `[NMLL]`. This changes the network indicator from bars to actual decibel values.
22. Help Me! Hold `[Alt]` and `[Shift]` and press `[H]`.
23. In the Address Book, hold `[Alt]` and type `[VALD]`. This validates your address book. You can also use the code `[Alt] + [RBLD]` to rebuild your entire address book.
24. Want to view the source code of a web page? Hold `[Alt]` and type `[RBVS]`
25. Add the date in a message `[L] + [D] + [Space]`; Add current time = `[L] + [T] + [Space]`.

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Dealers enquires solicited

Regular firmware phones

Your old phone about to kick the bucket? Give it new life

Rudresh Jariwala
rudresh.j@thinkdigit.com

Your old firmware phone giving you too much trouble? Tired of waiting for it to respond when you simply push a button? Well it's time to end these petty annoyances once and for all. Follow these tips and you will have your firmware phone running as good as new.

Update to the latest firmware

The first thing you must do is get your phone on to the latest version of the operating system. Many a time, this is something ignored by most and hence miss out on important updates such as optimisations in memory usage and management. Updating to the latest firmware is pretty much a seamless experience these days with the software suite that comes bundled on a CD with your phone. Don't have the CD? Even better! Download the latest version of the software suite from the phone manufacturer's site and install it on your computer. The update will involve you backing up your phone first, followed by the download and installation of the firmware operating system on your phone. Something else you must bear in mind when performing the update is to keep your phone battery charged because a dead battery in the middle of your update can spell disaster for your device rendering it into a useless paperweight.

Get Ready to
SYNC!

Sync and update your phone regularly.

Delete what you don't need

SMS: Yes, we all love to hold on to wonderful memories with our significant other by storing each and every "Gnite" message they send us. Grow up! Doing so is only adding to the redundant storage on your already under-capacity device. Instead, why not use the software suite for your phone to back up all your SMS messages (forwards, romantic sonnets and all) on to your PC. This way you can keep your inbox free of clutter and keep it zippy!

SOMETHING WORTH TRYING

We stumbled upon this interesting post on a forum and thought as absurd as it sounds, it's definitely worth a shot. It's a speed up trick that apparently works on Nokia S60 phones and the people that tried it swear by it, Here's the link http://goo.gl/dMere try it out and let us know how it went.

Useless applcations: Many firmware phones like the ones running the Nokia S60 operating system have the ability to install third party applications. These applications, though handy when you first installed them are now just sitting on your phone hogging unnecessary space. What's more, there is the possiblilty that the applications will also slow down your startup time due to unnecessary calls to said applications. It's time to throw out all the junk.

Memory card: Quick tip, if you are not using the full memory provided by your memory card, then replacing it with a smaller capacity memory card will reduce the time required for your phone to index the card's content and will speed up access time to the data on the card itself. Other than that, we recommend you either browse the contents of your memory card on your computer (using the cable or a memory card reader) or on the phone itself and browse the directories one by one to remove any old files you left on there that are just hogging unnecessary space. This could be ringtones, photos or bluetooth file transfers that you have accumulated over the lifespan of your device.

Make it a habit

The updating and cleaning up of your phone is something you must slot into your monthly agenda if you want to keep it running in optimal condition. It may be a tedious process the first time you do it, but thereafter it's a simple process that will probably take only a half hour of your precious time. So while the upgrade to your newest phone is still in the pipeline, why not make your current phone's user experience an pleasant one?

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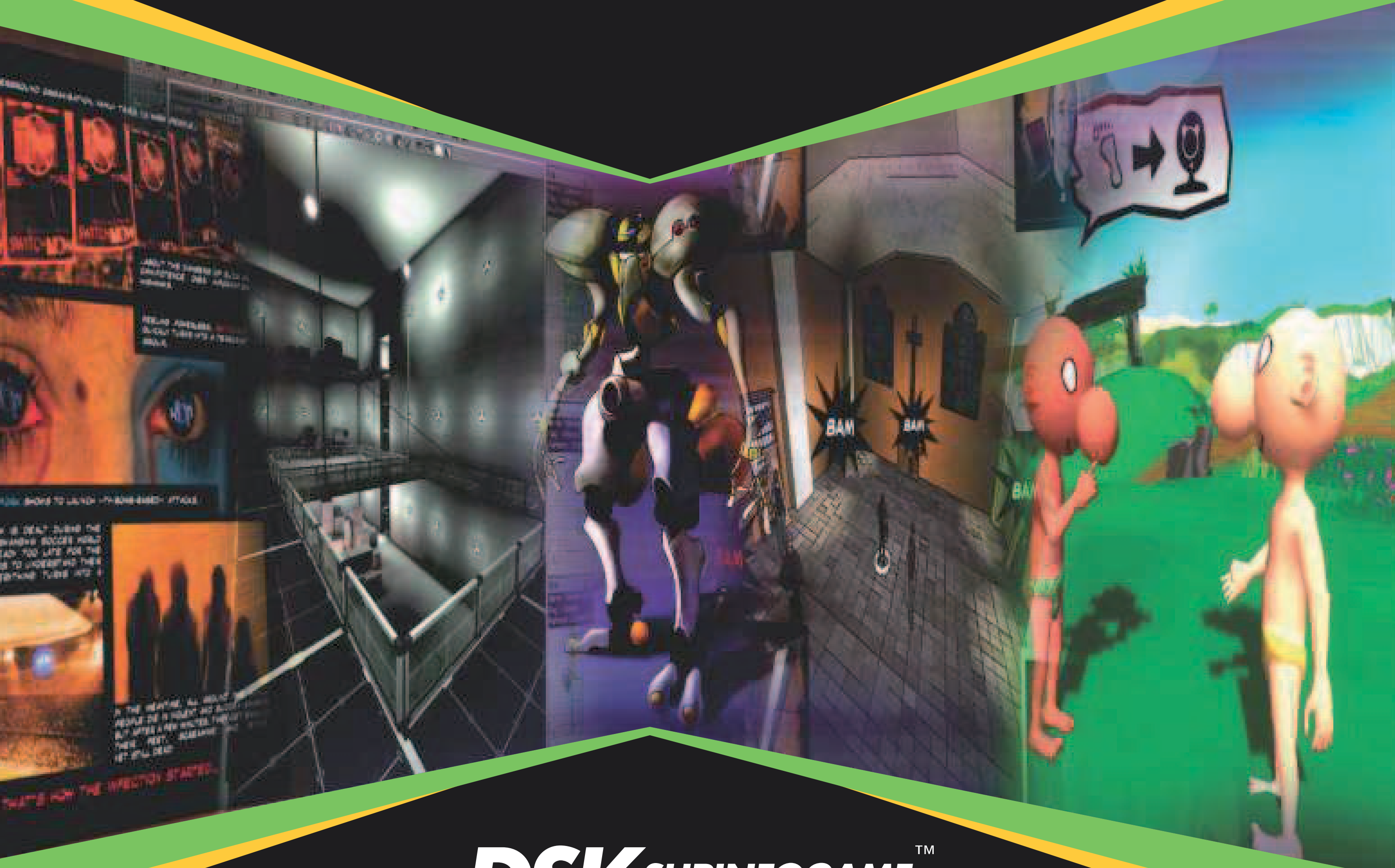

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Downloads

Eke every byte out of your connection

Getting a faster internet connection always helps in boosting your download speeds, however for those of us on slower connections, there is still some hope.

Tweak your manager

We'll use Free Download Manager (FDM) as our example. Go to `Options > Network`, set `Traffic usage mode` to `Heavy Mode`. Increase the maximum number of connections and maximum number of connections per server. Also increase the maximum number of mirrors. Remember to tick the "Automatically search for mirror URLs" option. If you use Windows XP and Orbit Download manager, go to `Tools > Preferences > Others` and check the "Increase connection limit for Windows XP SP2".

Speed up torrents

Before you start downloading from the torrent network, check your maximum upload speed settings using online speed tests. Set your client's upload rate to about eighty per cent of your maximum upload speed. For µtorrent Go to `Preferences > Bandwidth` and change the "Global Upload Rate". Use queuing and connection settings to download not more than two torrents at a time.

Use browser extensions

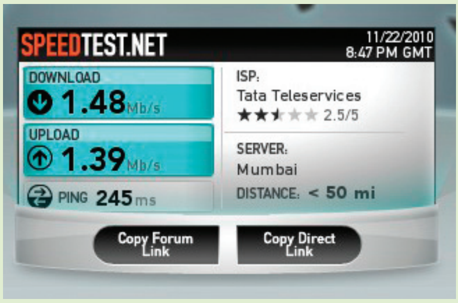
Using browser extensions for downloads certainly reduces your time. As you don't have to crunch through a number of steps before you start your downloads. Use "Down Them All" for Firefox, its developers boast that it increases download speeds by 400 per cent, but we would not necessarily go that far. It does a pretty good job though. Secondly, to grab any kind of media content currently playing in your browser use the "Download Helper" extension for Firefox to automatically catch it and download the file. Also try Download Master extension for Chrome. Activating Grab++ option in Orbit Download Manager also catches any viral video or flash files playing in your browser.

Download smartly

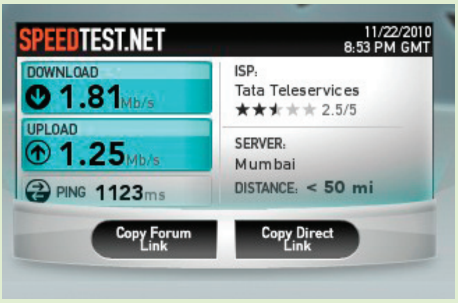
If you are downloading a file at a peak time when there is a lot of traffic, then you might get inconsistent or slow speeds, for this try downloading the file at different times of the day. The lower number of people on the network will mean better speeds for you. This is especially important for system admins in offices, who should set downloads for the night, when the bandwidth is freed up. Use queuing to ensure that no more than 2 downloads are running concurrently. Also clear your browser cache often, and help your PC get some much needed RAM back.

Net

Uncap your surfing speeds



SPEEDTEST.NET
11/22/2010
8:47 PM GMT
DOWNLOAD 1.48 Mb/s
UPLOAD 1.39 Mb/s
PING 245 ms
ISP: Tata Teleservices 2.5/5
SERVER: Mumbai
DISTANCE: < 50 mi



SPEEDTEST.NET
11/22/2010
8:53 PM GMT
DOWNLOAD 1.81 Mb/s
UPLOAD 1.25 Mb/s
PING 1123 ms
ISP: Tata Teleservices 2.5/5
SERVER: Mumbai
DISTANCE: < 50 mi

Uncap Windows

Windows allots 20 per cent of the bandwidth by default for various services like Windows update and spyware checks. The trick is fairly simple to get hold of the unused bandwidth. Here's what you do Go to `Start > Run` and type `gpedit.msc`. Go to `Administrative templates > Networks > QoS Packet Scheduler`. Click on Limit Reservable Bandwidth and check the enabled box and then change the Bandwidth limit from `20%` to `0%`. The screen shots above are the before and after results.

Limit bandwidth

To ensure that while browsing you get a fair amount of speed without disrupting your downloads, capping your bandwidth comes is handy. Developed to control and monitor internet traffic the Netlimiter application limits your bandwidth. So for example let's say you want to download a software and play CS at the same time, but do not want your game to lag. The download speed you get is, say, 4 Mbps; limit it in a 2:2 ratio so that your movie download continues while you play CS without any breaks. This is what you do when you start your download, go to Netlimiter you'll see DL speed on top which would show you your current download speeds lets say for example you're getting 300kbps change this to 150. Once you have changed the value you can start enjoying your game while the download happen in the background.

SG TCP Optimiser

A free application to enhance your Internet speed, weighing a mere 419 KB the SG TCP optimizer takes into account only the necessary registry parameters and tweaks the overall speed making browsing lighter and faster than before. Just run the .exe file and follow the instructions.

NEVER WAIT FOR THE OPPONENT TO STRIKE FIRST

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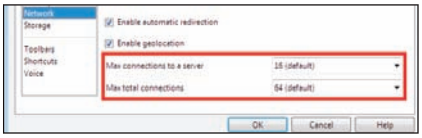
Browsing

Surfing faster than ever before

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

It's no secret that India is still light years behind when it comes to broadband speeds. We're pretty sure thousands of people reading this are nodding their heads right about now. There are large pockets where dial-up is the law of the land; where some sites only open after you've brewed a cup of tea. OK, fine, maybe that's an exaggeration, but you get the picture. Those of us who might have the good fortune of having a 512 or upwards line will be pretty smug about this write up – "meh I don't need it". Oh, but you do. Here we'll cover some tricks and tweaks that will help you optimise your browser for speed.

Network pipelining



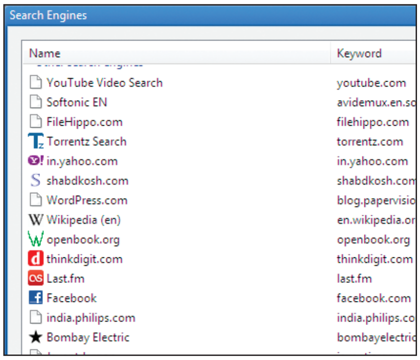
☑ Enable automatic redirection
☑ Enable geolocation
Max connections to a server 16 (default)
Max total connections 64 (default)

Tweaking connections to a server in Opera

This is a technique supported on HTTP v.1.1 wherein multiple requests are sent to a server. This option is usually turned on in browsers such as Opera, but if not, you can always do so. In Firefox type about:config in the address bar. In the filter type network.http.pipelining. Now double-click on the first result to make the value True from False. Now that you have enabled Pipelining you can increase the server requests to up to 8.

Tweak server requests

Server requests can be tweaked as per your browsing habits and connection quality. If you usually browse pages that have lots and lots of small images such as, say, Facebook, you might want to increase the server requests so that many of those small elements start loading simultaneously. If you browse pages that are vertically lengthy such as image-based forums then you'd want at least some images to load completely first before the others start loading. In which case you can reduce the server requests. In Opera you can change requests from the default value of 16 to whatever suits your usage scenario. If you are in the habit of opening lots of tabs at once at start up you can even increase the Max Total Connections. Find the option under the Network menu under Advanced Tab in Preferences `[CTRL] + [F12]`.



Name	Keyword
YouTube Video Search	youtube.com
Softonic EN	avidemux.en.so
FileHippo.com	filehippo.com
Torrentz Search	torrentz.com
in.yahoo.com	in.yahoo.com
shabdkosh.com	shabdkosh.com
WordPress.com	blog.papervisio
Wikipedia (en)	en.wikipedia.or
openbook.org	openbook.org
thinkdigit.com	thinkdigit.com
Last.fm	last.fm
Facebook	facebook.com
india.philips.com	india.philips.co
Bombay Electric	bombayelectric

SMARTTIP
Use an extension such as AdBlock Plus to block unnecessary flash content such as banner ads and save precious bandwidth

Create smart searches

One way of speeding up browsing is to get to what you're looking for quicker. Often from a search engine, there are only a couple of sites that we go to. You can program these into the address bar with an easily recallable keyword. For eg. typing wiki followed by "Barak Obama" will take you directly to the Wikipedia page on Obama. In Opera, right-click the text search box for which you want to create a smart search and click on Create Search. Give it a keyword you'll remember, click OK. In Chrome you can right click the address bar and go to "Edit search Engines...". Just remember to change the Keyword. For FireFox you can use an extension called Add to Search Bar 2.0 (http://bit.ly/aHOfh1)

RSS feeds and mobile sites

Who wouldn't want to browse the web in all its glory? But if you're hands are tied by a dial up or lets say a near dial up connection, you've got to make some compromises. Instead of viewing news on one of those heavy news sites simply use an RSS feed reader like Google Reader. Besides, its more organised too right? If all else fails, you can always browse on the mobile optimised web site which is probably ten times lighter. In most cases you can append `m` at the beginning of the URL or use Google's Moblizer service (http://www.google.com/gwt/n) that optimises any web page for mobile. d

Task management

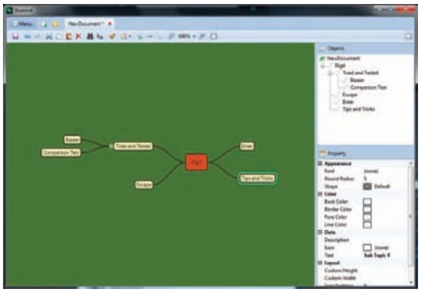
Speed up yourself

Rossi Fernandes
rossi.fernandes@thinkdigit.com

Most of our time is occupied with completing tasks – be it office work, paying the bills or scheduling meetings. While some might feel that technology is complicating things, with a few essential sites and software, it's possible to plot and plan out our lives to be a little more organised.

Mind mapping – Blumind

Use mind mapping software such as Blumind (www.hyfree.net/product/blumind) to help plot things out easily. Simply create topics and attach a subtopic to it. This could be a plan for a project, or even a daily schedule that you would like to follow.



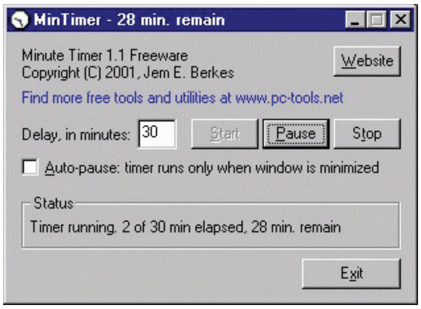
Blumind - Mind mapping made compact, simple and effortless

Alarms / Reminders

For urgent reminders, use apps such as Minute Timer on Windows – it pops up alerts and reminders. Stopwatch & Timer is just one example available in the Android marketplace.

Google Tasks

An easy way to keep track of a To-do list is use Google Tasks. It's available on Gmail on the sidebar.



MinTimer - 28 min. remain

Minute Timer 1.1 Freeware
Copyright (C) 2001, Jem E. Berkes

Find more free tools and utilities at www.pc-tools.net

Delay, in minutes: 30

☐ Auto-pause: timer runs only when window is minimized

Status
Timer running. 2 of 30 min elapsed, 28 min. remain

Minute Timer is a great timer app to keep your tasks on track

Accessing http://gmail.com/tasks from your mobile phone will show up the list of tasks. There is also very good integration with Google Calendar which makes things seamless. Astrid, a free app for the Android platform sync local tasks with Google Tasks. Priorities and reminders for tasks can also be set using it.

Make sure to try these tools, and let us know how much they helped you.

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Symbian phones

Get more from your Nokias

Vinod Yalburgi
vinod.y@thinkdigit.com

If you are a Nokia fan, you'll be happy to hear that it's possible to eke out much more from your phone than you can at factory settings.

Memory management

The most common cause of slowdowns is the cell phone's internal and external memory being used up. You should always store large files, such as pictures and videos on the external memory, and not on the phone. In order to make it easy to manage your memory, you can use software that takes control of the JVM (Java Virtual Machine), smartly analyses the J2ME programs running in the background (including hidden programs) and automatically recovering and allocating memory to boost the overall system performance.

You can download the 'Memory up' tool from http://tinyurl.com/35txmmz.

The Symbian tool

Here's a short explanation for the buttons you will see when you start up the software, which you can get from http://goodgest.com/kb/symbiantool-installer.exe:

1) Jubble - Cleans registry, applications, settings and cache memory.
2) Sterilize (Jubble++) - Cleans registry, applications, settings, index files, cache, maps, widget, personal folders, patches, thumbnails, dictionaries, demos, examples, downloads, games, backup settings.
3) Regkiller - quickly cleanup Symbian system registry and remove installed applications
4) Thumbkiller - remove image thumbnails and index files
5) Optimizer - remove registry invalid links, empty directories, etc.
6) Quick defrag - optimise Symbian mass storage file system
7) Quickbak: backup multimedia and personal files with a single-click
8) Quickres: restore multimedia and personal files with a single-click
9) Fullbak: take a backup image of the entire Symbian storage system
10) Fullres: restore the backup image of the entire Symbian storage system
11) Registry backup: take a backup of the entire Symbian registry
12) Registry restore: Restore the entire Symbian registry
13) Full Delete: permanently removes all traces of data and files from the Symbian storage system
14) Symfix: it scans the Symbian file system and fixes errors in the file structure
15) Juck: it allows you to safely disconnect the Symbian USB devices with a single-click
16) Snoop: a detailed analysis tool
15) Uninstaller: completely removes specified application software

Symbian S60 Easter-egg

If you're fed-up of third-party tools, you can try and tweak something yourself. The only pre-requisites you need are: a Nokia cellphone running on Symbian S60 platform.

Back in time

- Set the phone's date to: 01.05.2005
- Navigate to the Calendar application and create two new to-do's:
- Go to `Options > New entry > To-do`
- Now, set the following parameters for each of these to-do's:

```
  i)  To-do
      Subject: speed
      Due date: 04.08.2005
      Priority: High
  ii) To-do
      Subject: Quokie
      Due date: 04.08.2005
      Priority: Low
```

- Confirm both the to-do notes with "Done". However, leave the calendar application open.
- Then choose `Options > To-do view`, mark "speed" as done and then mark "Quokie" as done.
- Now, close the calendar and revert the phone's date back to the present day.
- That's it! You are ready to experience the performance boost on your Nokia cellphone. Although, the performance gain might seem to be marginal, you should still feel the difference.

Your Android phone

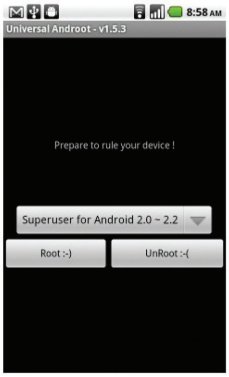
Although new, even Android needs some speeding-up

Rossi Fernandes
rossi.fernandes@thinkdigit.com

We're all excited about Android but unfortunately, not all the Android devices are powered by blazing quick hardware. This means that it only makes sense to tweak and push the existing hardware to its limits. Here a quick tutorial on how to overclock your Android phone.

Rooting first

Rooting an Android device is useful for a number of reasons. For overclocking specifically, you'll need to root your phone. Use a software such as Androot or 1-Click root to root the phone. Preferably, set the phone to be permanently rooted, so settings don't change when you reset the phone



Prepare to rule your device !

Androot makes rooting a phone a single-click task

Overclocking the phone

An app called SetCPU (http://bit.ly/9Fxzog) will let you overclock the processor. Overclocking the phone takes place in more or less the same way as you would a desktop PC. Once you have SetCPU downloaded and installed, start it. You'll be prompted to allow it superuser access. In the next step, SetCPU can autodetect your processor speed. You can choose your phone model manually as well.

In some cases, you won't be allowed to overclock. To add overclock speeds, create a text file in your SD card called setcpu.txt. Type in manual speeds that you would like to overclock to. eg. `250000,500000, 550000,600000,700000,800000`

The next time SetCPU starts, you can choose to access presets from a file. You can then use SetCPU to switch to higher clock speeds.

Testing the overclock

Linpack (http://bit.ly/a2uHmu) is a free benchmarking tool which can be used to gauge the performance benefits of overclocking. After every overclock, check to see the performance benefits. Over time, also watch the effect of the overclock on your battery life – it's obvious that battery life will go down, but try and find the right balance. d

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Your PC without over clocking

It's easy to overclock, but not everyone can...

Rossi Fernandes
rossi.fernanes@thinkdigit.com

Wouldn't it be great if you could speed up your PC without having to overclock your hardware, and risk damaging it all? With a few tweaks in the motherboard BIOS, you can speed up boot times as well as overall system performance. BIOS settings are easy to change, but the naming conventions used in them may vary from one board manufacturer to another. To boot into your BIOS, press `[Delete]`, `[F1]` or `[F2]` keys on your keyboard while the PC boots. Once you've made the changes, save the BIOS settings and reboot.

Note: In case of any problems with booting the system after changing settings, you can clear the CMOS settings by switching jumper positions on your motherboard or by pressing a reset CMOS switch. Refer to the motherboard manual for the position of this switch or jumper.

CPU and memory

Most modern motherboards are designed to slow down CPUs to keep temperatures in control and also to optimise power consumption. Use the CPU configuration menu and set the CPU multiplier and board bus speed as stated by the manufacturer. Be sure to enter accurate values. Any mistakes here, would overclock or underclock the processor. For example, a Core i7 965 runs at 3200 MHz (24 x 133). Similarly, in the memory configuration menu, set the memory speed and timings as per the specifications. If timings aren't available, set just the speed.

Disable CPU throttling

Features like EIST (better known as SpeedStep) from Intel and Cool 'n' Quiet from AMD are designed to lower speeds when the processor isn't in use. If you want the maximum possible performance all the time, turn off these features under the Advanced Settings option in the BIOS. Just keep in mind that the processor might run hotter than usual.

Boot orders

Selecting the right boot order of drives reduces boot times by a few seconds. Make sure you have no USB devices when you are booting your system. An option to disable USB boot devices is also present. Set the bootable hard drive to be the first drive to boot. Remember that you will have to set your CD/DVD drive as bootable if you want to install an operating system. Your primary boot drive should always be the drive to boot.

Enable Quick Boot

The Quick Boot feature boots the system without any of the splash screens from your motherboard appearing. Similarly, also disable any RAID controllers and network boot options. This saves a couple of seconds during the bootup.

Auto-detection of IDE drives

If you are still using IDE devices, the board by default, detects all the drives during bootup. There are a few valuable seconds that can be saved here. Boot into the BIOS and select the drive channels the drives are connected to, and manually enter the details for them. Disable the auto detection feature.

Integrated graphics memory

Motherboards with integrated graphics chipsets require a decent amount of memory to perform well. At the same time, too much memory should not be allotted to it. 128MB to 256MB should be sufficient for most integrated graphics. This would reduce the amount of system memory your operating system has. If you use a discrete graphics solution, disable the allocated memory completely if possible.

Boot loader timings

If you have two or more operating systems installed, you are bound to have a boot loader installed. The boot loader window appears on screen for 10 seconds by default. Set the operating system you use most as default, and reduce this time. d

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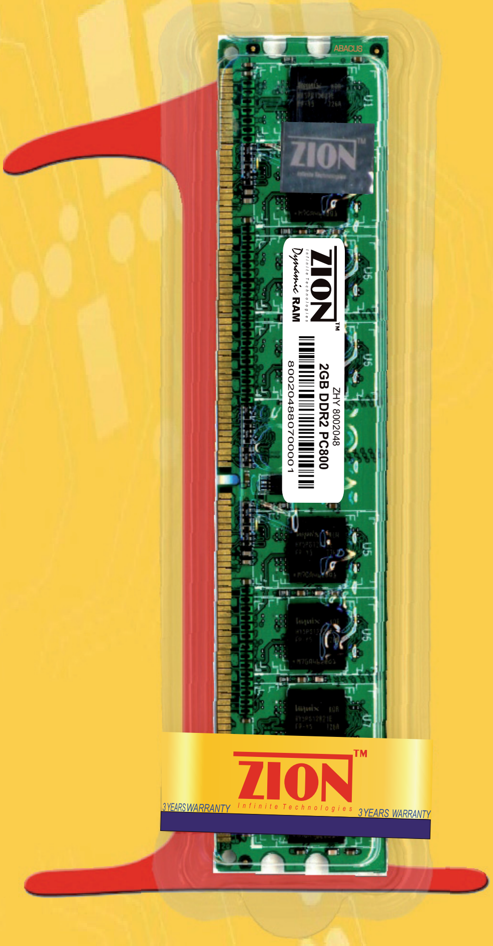
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Upgrading Smartly

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System performance is everything, and no one is ever content with what they have. For desktops especially, gaming has always been the driving force. In most cases, upgrades are necessary, but do you absolutely need to upgrade all the components in your PC?

Do you need to upgrade?

Most desktop users using their PC for office applications, browsing and email don't absolutely need a faster PC. Most of the time, fragmented drives, bloated software and malicious software bog down the the entire system. Upgrades will speed up your PC, but the benefits you'll notice will be just a second or two during load times or processing. Upgrades are recommended every two to three years at least.

What are the components to upgrade?

The processor, motherboard and RAM are components that are interdependent on each other. Very few people upgrade processors every few months. In fact, it's done every alternate year or so. A processor upgrade usually means a motherboard and memory upgrade as well. For example,if you've been using a Intel Core 2 Duo so far, you're very likely to upgrade to a Core i5 or i7, and a corresponding motherboard along with the DDR3 memory. Power supply and cabinets in comparison don't need to be upgraded very often, unless of course you upgrade to a really power hungry graphics card.

Bottlenecks - what are they?

Bottlenecks in PC hardware occur when you upgrade a particular component that is capable of performing much better, but is limited due to another slower components. Gamers commonly like to upgrade all PC components at once. Graphics cards are often bottlenecked by slower processors (for example, if you use a five-year old processor and a fast Radeon 5970). There are certain games which are more CPU dependent while some others depend more on the GPU. If you play only those few specific games, then just a simple graphics card upgrade should be sufficient.

Similarly, if you use an old 5400 rpm IDE drive on a modern system, you're likely to see a big drop in read and write performance, which inadvertently will affect real-time PC performance.

Does adding a graphics card on an old system make sense?

Many graphics card manufacturers claim that adding a graphics card can speed up performance. It's partly true, but it's only possible on certain applications and the performance benefits are often negligible.

Should I upgrade to an SSD?

SSD (solid state drives) come in different sizes and speeds. The cheapest of SSDs are still several times more expensive than standard hard drives. The read speeds of most SSDs are the same or slightly better than hard drives but the write speeds aren't still much better. If you're thinking value for money, they aren't the ideal choice. Now isn't the time to upgrade to one.

Upgrading to SSD might not always mean much higher disc transfer speeds

More than 4 GB RAM make sense?

Most 32-bit operating systems can only utilise around 3.25 GB of memory. 4 GB these days is the sweet spot when it comes to memory. Any more, and you should upgrade to a 64-bit operating system. Most memory intensive games will only use around 1.5 to 2 GB of memory.

More core vs more speed?

A minimum of two or three cores per processor is always desirable for performance. In applications that can fully utilize all cores on a processor, more cores makes more sense. At present, 3d modeling and rendering software are applications which can do this well. Most games do not use all cores fully. A faster core speed processor is often better performing in games. For example in some games, a 2-core processor at 3.2GHz is more likely to perform faster than a 2.4 GHz quad core. If you're just using a single core processor, then its recommended that you upgrade to at least a three or four core one. For basic desktop applications, a simple dual core is still good enough. At the same time, a really slow core speed six-core processor isn't much good either. **d**

FASTER CORE SPEED?

So is your system isn't fast enough for games? Look up the Overclocking your CPU and GPU stories in this issue, and also the Overclocking Guide in the November 2010 of Digit.

CINEBENCH
RELEASE 11.5
MAXON

3d modelling software are optimized to use cores to the fullest

Team Management

Use GCal to speed up your tasks

Today
June 2008
Sun
Mon
Rob Goldman's Birth
Jordan Golson's Birt
Jory Stiefel's Birthda
Zola Jones's Birthda
Mozilla Weave?
George Kelly's Birth
Add
My Calendars
Calendars

Rudresh Jariwala
rudresh.j@thinkdigit.com

Google Calendar (aka "GCal") as you may already know is a free web-based time management utility available from Google. Rather than having all your tasks planned out in Excel, do the same planning on Google Spreadsheets and you'll be able to share all your developments, with your team, on the go. With `tasks`, you're not too far from schedules. As hard as we try not to, that's the part we all hate. Whether you manage a team, or are accountable for specific responsibilities yourself, you can synchronise your tasks and deadlines that you have set in your spreadsheet and jot down tasks in your Gmail inbox with your GCal.

This way you can set reminders to inform not just yourself, but also your team members about upcoming tasks, targets, deadlines or events and ensure that your plan doesn't clash with others in your team. For example, if you plan to conduct a meeting to discuss the targets for the month, you can avoid doing that if there is a festival, or if prominent members of your team are on leave. Also, team members can specify the days they are on leave, so that critical team meetings can be planned accordingly.

As is the case with most Google offerings, you'll need a Gmail account to access GCal to its true potential.

Events

Events creation in GCal is pretty straightforward with the clickable items on the top left of your screen. A quick add (keyboard shortcut `q`) will show a dialog box where you can enter your event in simple text with the date and time in free flow text. The engine is smart enough to detect dates and time and automatically creates your event in the desired date and time. If the time is not specified, the event is created as an all day event. This is a great feature especially when clubbed with SMS reminders (see `Settings>Calendar Settings`). All you need to do is validate your mobile number and then any event you add will be sent as an SMS reminder to you at the required time. Nifty eh?

Explore

There are countless other possibilities of using GCal to improve your productivity and features. One possibility is to have a simple dedicated Wordpress-based blog that lets your team share events and comments, and yet stay synchronised using Google Calendar! Don't be afraid to explore the myriad host of features that are made possible using Google Calendar since the topics covered here are merely the tip of the iceberg.

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Speed up your Mac

Simple tricks for those who appreciate simplicity

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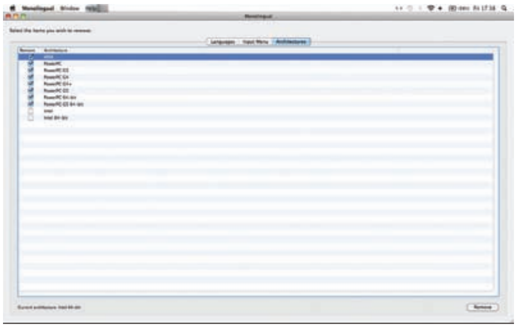
Whether you're running OS X 10.5 or the much faster Snow Leopard OS X 10.6, there's quite a bit you can do to further speed up your OS X-based systems. This is especially for those people whose Mac Books and IMacs have become slower over time. Many of these tricks will garner a lot of speed out of older Macs, especially Panther and Leopard, although smaller speed benefits under Snow Leopard will also be noticed.

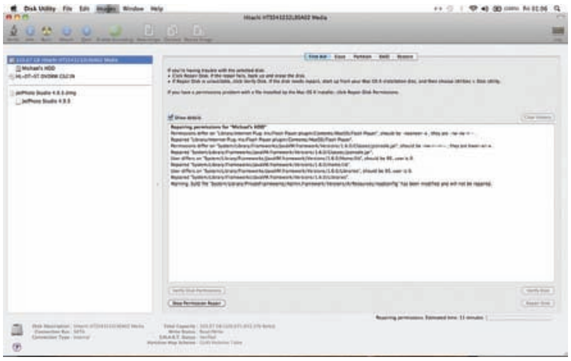
Disable dashboard widgets

While widgets are fun, and a funky way to attain information at a button press, each dashboard widget you enable, consumes both processing power and valuable memory. To disable widgets and speed up OS X you need to: open up terminal.app located in Applications > Utilities > Terminal. Alternatively you can enter "Terminal" in spotlight to open it. Select, then copy/paste the following into the terminal and hit Enter: <defaults write com.apple.dashboard mcx-disabled -boolean YES> (without cascades). Then type the following: <killall Dock>. Hit Enter again, and your Dashboard widgets are now disabled.



Here's a simple one

This will speed up your boot time and



even performance. Any manually run applications should also open faster. You simply remove all extra menus like the display menu, iChat menu and so on. Also remove extra icons from the dock. Although this is a small tip, it does help improve performance on older Macs, and will help reduce boot time on any OS X-based system.

This one is even simpler

If you're the type that has a mess of files on your desktop, simply organising them and putting them into folders makes a huge difference. Since OS X has a visually rich interface and this implies to desktop icons as well, simply putting them into appropriate folders will do wonders, particularly for older Mac systems and particularly those with less than 2 GB of memory.

Permissions

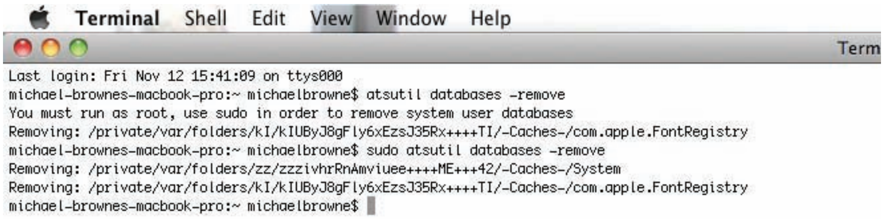
This involves checking permissions for files and folders on a Mac partition and comparing them against a correct list, and correcting discrepancies if any. Run Disk Util from Spotlight, or under Applications > Utilities > Disk Utility. Navigate to the necessary volume and simply run Verify Disk Permissions and Repair Disk Permissions (in that order).

Clear caches

Although this is less of a problem on Snow Leopard, one of the common slow downs in Mac systems is caused by temporary files, particularly user font and font caches, and overflowing system files. A simple terminal command will flush the cache, clearing this waste out. Access the terminal by entering it in the spotlight window, or navigating to Applications -> Utilities -> Terminal. Once here, enter this command <sudo atsutil databases -remove>

Removing languages

Another task you can undertake that will add a bit of speed, while freeing up a lot of hard drive space is removing languages you do not use, and architecture-specific binary code that is built into OS X to support previous architectures like PowerPC G3, G4, G5 etc. If you are on an Intel-based Mac, these are of no use to you. Additionally removing extra language options from the Input Menu will also free up quite a bit of space. The easiest way to do this is to use software called Monolingual, available for download at http://monolingual.sourceforge.net/. There are three separate tabs, and you'll need to select all the stuff you want to remove under each tab and click "remove". The tabs are Languages, Input Menu and Architectures. We saved a total of 2660 megabytes by running Monolingual, and you need to run it only once, and never again, unless you reinstall OS X..



```
Last login: Fri Nov 12 15:41:09 on ttys000
michael-brownes-macbook-pro:~ michaelbrowne$ atsutil databases -remove
You must run as root, use sudo in order to remove system user databases
Removing: /private/var/folders/kI/kIUByJ8gFly6xEzsJ35Rx++++TI/-Caches-/com.apple.FontRegistry
michael-brownes-macbook-pro:~ michaelbrowne$ sudo atsutil databases -remove
Removing: /private/var/folders/zz/zzzivhrRnAmviuee++++ME+++42/-Caches-/System
Removing: /private/var/folders/kI/kIUByJ8gFly6xEzsJ35Rx++++TI/-Caches-/com.apple.FontRegistry
michael-brownes-macbook-pro:~ michaelbrowne$
```

Google Gmail

Blaze through your daily Gmail

Nash David
nash.david@thinkdigit.com

These days anything Google is synonymous with the web in the same way that Gmail is email as we now know it. Debates and responses could go on, but why waste time. Let's get our work done, and let's get it done fast! There's more to Gmail than the regular search bar.

What's wrong with the connection?

If you're stuck with a slow connection and realise that most of your time goes refreshing your browser before you get to see your inbox, a nifty `Lab` feature called `Inbox Preview` will bail you out. Although it wouldn't make your Gmail any faster, it would certainly let you know whether you have any new email before you access your inbox. That means a lot in peak traffic, low bandwidth scenarios.

Keyboard shortcuts

Yeah, Gmail's keyboard shortcuts are an often ignored feature that could save you significant amounts time doing those same mundane tasks in your inbox. To enable keyboard shortcuts, go to `Settings>General` and turn `Keyboard shortcuts` on. To see a complete list of keyboard shortcuts just hit the `?` on your keyboard. You no longer need to click on compose, just hit [`C`]. You can access the previous and next messages by pressing [`P`] and [`N`], respectively. There are shortcuts for more tasks than you would normally use. So go ahead and explore this Gmail feature to the fullest.

Mouse gestures

Go to `Settings>Labs`, enable `Mouse Gestures`. If you're comfortable with mouse gestures in Opera, then you'll find Gmail's mouse gestures quite familiar. Hold the right button of the mouse and drag to the right to move to the next message. Similarly, drag to the left to go to the previous message. If you are in a message, then drag up and left to go to the inbox.

Gmail straight to your browser

If you're a Firefox user, you can use "Gmail Manager" plugin to speed up access to your Gmail. Install this add-on and you get a notification in the bottom tray with the number of unread messages, and quick shortcuts to Compose. The same goes for Chrome with their "Google Mail Checker Plus" extension.

Clean up clutter

Most of the time, we end up deleting spam, or archiving repetitive email that we may need sometime in the future. Gmail lets you automate several tasks at once. You could use Gmail's effective filters to segregate your email into the right folders (labels in Gmail). This way, you could do away with the usual clutter you would normally have wasted a significant percentage of your time reading through. If you know the sender, just go to `Settings>Filters`, click on `Create a new filter`. You can sort email according to the sender, recipient, subject, or body. Enter the criteria relevant to your need. You can test the results if you want to. Click Next and select the action. You can delete unwanted email or archive necessary but repetitive email, in addition to other actions.

Use Labels

Another useful feature with Gmail is Labels. Unlike Folders in most email clients, you can have an email appearing in multiple locations. This comes in handy to fetch your email when you require it the most. For example if you're planning a new PC configuration and have several conversations going on with 3 vendors, you could label the relevant email with the vendor's name as well as a name for the PC configuration, say Star Computers and Gaming PC. Similarly, you can have Bombay Electronics and Gaming PC, and so on. This way, whenever you want to relook at the quotes, you can click on Gaming PC to get all conversations related to your PC. If all you remember is one of the vendors, you can click on the Label and you will see email labelled with the vendor name and the other labels applied to the same conversation. Select that label to view all the conversations you ever had on this topic.

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Overclocking your processor

Stretching your system performance for free

Nimish Sawant
nimish.sawant@thinkdigit.com

Overclocking is a process which allows you to make your processor run at a faster clock rate than what it is rated at, so that you can derive more performance out of your processor at no extra cost.

Overclocking does come with its share of risks as you are making it run at a faster speed. If done with patience and care, overclocking can boost your system's performance quite a bit, for free. Also, nowadays most of the processors come with lots of fail safes. For instance, if you have overclocked your system beyond its threshold, then it will throw up errors or hang or cause artefacts to appear in your games. These are signs that you should pay attention to and reduce the processor clock speeds.

While overclocking you need to keep four things in mind – the base clock speed, the multiplier, the latency timings and the temperature. Base clock speed is the speed at which the processor runs and when multiplied with the multiplier, will give you the core clock speed of the processor.

To read a detailed article on the process, we would like you all to read the Overclocking Guide we had published in November 2010 (also found here http://bit.ly/b0XYMw). We will refrain from repeating what was already said. In fact, we thought of making this article more practical and overclocked an Intel processor. So this is a step-by-step guide to it.

Overclocking Intel Core i7-875K

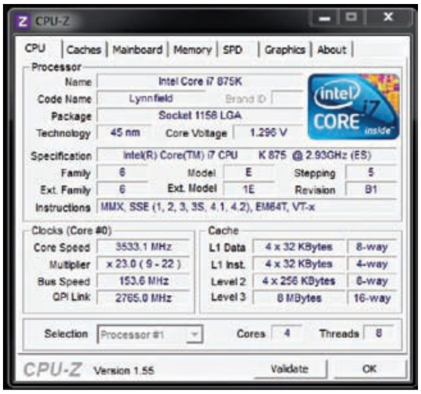
Step 1

After setting the rig, we enter the BIOS by pressing Del. As we are using the MSI P55 motherboard, we will have to enter the Cell Menu to tweak the processor settings. For ASUS Motherboards you will have to enter Ai Tweaker and so on.

We disable the Turbo Boost, as we do not want the processor to overclock on its own, as it will not give us a clear idea of the performance jump we can expect. Similarly SpeedStep (EIST) was also disabled as it is not really needed for overclocking. The Base Clock (BCLK) in our case was 133 MHz and Multiplier was 22x. The RAM timings were set to 7-7-7-20 for the 2x2GB Corsair XMS3 DDR3 memory.

Step 2

As we were just doing basic overclocking, using only stock components, we did not touch the voltages. We started with increasing the multiplier count from 22x to 23x, which pushed the processor frequency to 3.06 GHz. We saved these settings by pressing F10. On rebooting the system, we checked all the temperatures in the idle state as well as on load. We ran a few benchmarks. At no point did we notice any crashing or blue screen. The system was certified stable at 3.06 GHz.



Processor
Name: Intel Core i7 875K
Code Name: Lynnfield
Brand ID:
Package: Socket 1156 LGA
Technology: 45 nm
Core Voltage: 1.296 V
Specification: Intel(R) Core(TM) i7 CPU K 875 @ 2.93GHz (ES)
Family: 6
Model: E
Stepping: 5
Ext. Family: 6
Ext. Model: 1E
Revision: B1
Instructions: MMX, SSE (1, 2, 3, 3S, 4.1, 4.2), EM64T, VT-x

Clocks (Core #0)
Core Speed: 3533.1 MHz
Multiplier: x 23.0 (9 - 22)
Bus Speed: 153.6 MHz
QPI Link: 2765.0 MHz

Cache
L1 Data: 4 x 32 KBytes, 8-way
L1 Inst.: 4 x 32 KBytes, 4-way
Level 2: 4 x 256 KBytes, 8-way
Level 3: 8 MBytes, 16-way

Selection: Processor #1
Cores: 4
Threads: 8

Version 1.55

Overclocked status

Step 3

We repeated Step 2 and this time increased the multiplier to 24x. This process continued, till we reached a point where increasing the multiplier beyond 26x resulted in a unstable system. So on the next reboot, we reduced the multiplier to the last stable setting and started playing with the base clock frequency. For the purpose of this article, we stretched the core clock to 3.53 GHz and ran all the benchmarks at this frequency. The table below will give you an idea of the readings

Step 4

Be sure to keep a tab on the temperatures. It should not overheat at any point of time, as the transistors working at faster clock speeds will generate more heat than at stock speeds.

Finally, just mere overclocking is not enough. The system should run comfortably at the overclocked settings. Only then can it be called a successful overclock.

As you see we got quite a performance boost not just with games, but with productivity tasks like rendering, encoding, etc. So what are you waiting for?

Remember, you can even overclock a multiplier locked processor by tweaking the base clock frequency. But remember that running a stable system is more important than extreme overclocking. d

Processor: Intel Core i7 875K @ 2.93 GHz
Memory: Corsair XMS 2x2GB DDR3 @ 1666MHz
Motherboard: MSI P55A GD65
Graphic Card: Palit GTX 460
Power Supply: Corsair HX620W
Monitor: Viewsonic VX2250mw
Hard Disk: WD Velociraptor 300GB

Benchmarks	Stock Speed (2.93 GHz)	Overclocked (3.53 GHz)
Cinebench R10 (multiple CPU)	11615	13718
Unigine Heaven 2.0	35 fps	37.8 fps
DixX Encoding (100 MB VOB to DivX conversion)	32 seconds	23 seconds
Doom 3	310 fps	367.4 fps
Resident Evil 5	99 fps	103 fps

Speeding the system

Optimise your system for gaming without overclocking CPU or GPU

Nimish Sawant
nimish.sawant@thinkdigit.com

Gaming performance is improved by overclocking the CPU and the GPU, but there are a few other things that you can and should do to get more boost out of your gaming system. Sometime making some changes to the system before tweaking the in-game settings can go a long way in improving your system for gaming.

Driver Updates

Driver updates are critical to gaming performance for the simple reason that new features and bug fixes are introduced in them. So if you have a card that is running on driver that probably was installed a year ago, it is running at 10-20 per cent slower than normal.

Patches

Visit the game publishers website in case you are facing a problem which is known. There could be a patch or hot-fix for that problem which can solve the problem and improve your gaming speeds.

Game Booster

As the name suggests this is one nifty software that every gamer should have on their PC. It is a free-to-use software (http://goo.gl/9Ytp). Game Booster optimises your system for gaming by disabling various services temporarily that can affect gaming performance. There are other options in Game Booster like Game Drivers, which checks for latest updates of your graphic card, sound and network drivers. Having the latest driver is critical to gaming performance. Then there is Game Defrag menu which will defrag your gaming directories, so that games load faster. Game Tools has features that can be customised by the user such as mouse settings, power settings, controller settings, etc.

Adjusting your system for Best Performance

As you are looking at better performance in gaming and all your graphic details are being taken care of by the GPU, you should set your system for best performance by following the steps below.

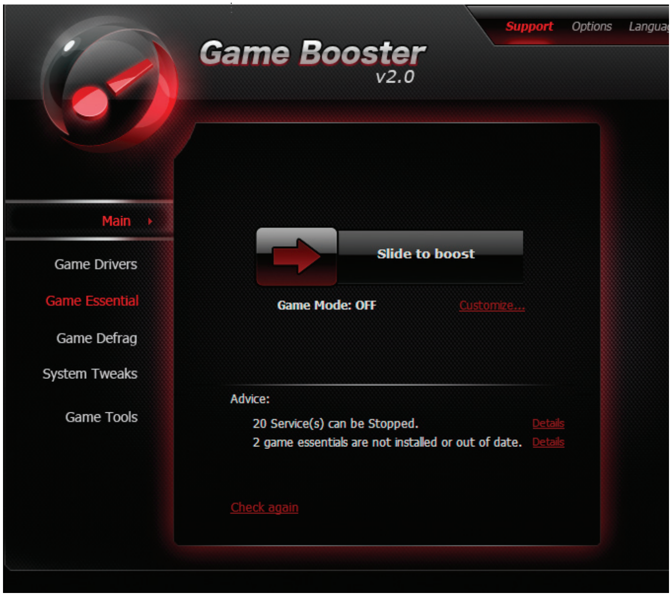
Click Start, right-click Computer, click Properties, and then click Advanced system settings.

On the Advanced tab, click Settings under Performance.

On the Visual Effects tab, click Adjust for best performance, and then click OK.

Click OK to close the System Properties dialog box.

Test your game.



Game Mode: OFF

Advice:

20 Service(s) can be Stopped.

2 game essentials are not installed or out of date.

User interface of Game Booster

Changing Game Settings

Lowering the shadow detail

This can have a huge impact on improving your gaming performance as it uses a lot of your processing power.

Disable V-Sync

V-Sync if enabled, prevents the next frame from being displayed unless the present one has been fully rendered. This is not desirable in games that require fast responses.

Disabling Gaming details

Many games give you the option to improve details like dynamic lighting, water ripples, etc., for giving you a richer gaming experience. While it all sounds good, it does use up your cards processing power. So unless you have a very fast or high spec card, it is best to keep these fine adjustments disabled.

Disable Anti-aliasing (AA)

Anti-aliasing is a process which helps in smoothening the jagged edges. For instance, while gaming we come across lots of sharp objects which look pixellated at the edges such as leaves, wires, etc which is called aliasing. So anti-aliasing will try to work on those pixels on the edge to give you smooth edges and better image quality. But this will reduce the performance of your graphic card to some extent. So unless you have a very powerful graphic card, it is pointless to crank up the anti-aliasing filter to an extent where your gameplay is affected.

Disable Anisotropic Filtering (AF)

After anti-aliasing, you will come across this term - Anisotropic filtering (AF) - a lot in your game settings menu. Anisotropic filtering tries to enhance the sharpness and clarity of textured object. Textured objects consist of different types of data such as colour, transparency, among others. It is best to keep it disabled unless you have a powerful graphics solution. d

Overclocking your GPU

Want higher frame rates at no extra cost? Read on to find out how

Nimish Sawant
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After having seen how you can overclock your processor to make it run at a frequency higher than the stock frequency, we will try to look at how you can overclock your graphics processing unit.

Graphic cards have two main parameters namely: core clock and memory clock. Core clock is the speed at which the graphics processor in the card operates. Memory clock is the speed at which data is transferred between the processor unit and the VRAM – the graphics memory. Memory clock along with the memory bus determines the memory bandwidth of a card. Higher memory bandwidth means you can crank up the anti-aliasing and anisotropic filters. Overclocking the GPU involves playing around with the clock speeds of the core clock and memory clock.

Unlike processors, graphic cards, although manufactured by giants like NVIDIA and ATI, are sold by third party resellers. Many resellers like XFX, Zotac, etc, play around with the clock settings to make their products stand out. So, although there may be reference settings for a particular GPU, you will find various flavours in the form of different video RAMs, different clock speeds, etc.

We will take a look at how you can overclock your GPU from its stock clock speeds to extract more performance out of it. Coming back to the limitations part that we spoke of earlier, there are certain things we would like to state at the outset. Overclocking will void your graphic card's warranty as you are trying to make the card work at a setting which is higher than what you were offered. Overclocking is a risky sport and may end up harming your graphics card if not done with care. The main reason why manufacturers rate the card at lesser their maximum performance limits is to allow the card to work under the worst possible conditions stably.

There are two ways to go about overclocking your GPU: by using software utilities or by flashing the BIOS. We would suggest you try overclocking by using software utilities as it is a completely reversible process, unlike flashing the BIOS which is a bit complicated and should not be attempted without determining the card's threshold using software utilities.

RivaTuner, ATI Tray Tools, MSI Afterburner are the software utilities that allow you to overclock your GPU.

Software utilities for overclocking Graphic cards

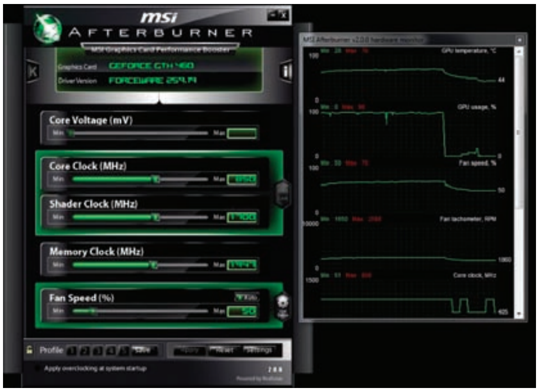
RivaTuner
MSI Afterburner
ATI Tray Tools
nTune
Catalyst

RivaTuner works with both NVIDIA and ATI cards whereas ATI Tray Tools works with ATI cards. All card manufacturers also come out with their own software CDs which have utilities for overclocking like Catalyst (for ATI cards) and nTune (for NVIDIA cards).

Start off by installing the utilities on your system. We are using the MSI Afterburner. In the NVIDIA cards you have an option to slide the core clock, shader clock and the memory clock. In an ATI card you can only adjust core clock and memory clock. In both the cards, one can also adjust the fan speed. Keeping the temperatures under check is important as overclocking will lead to a rise in temperature. So in order to crank up your clock settings, your temperature needs to be under check.

First move the core clock slider on the right hand side in small increments of 10 MHz each and stress test the system. This can be done by running benchmarks like your favourite games or synthetic benchmarks like 3D Mark Vantage, etc. Keep doing this till you reach a value where the stress test either crashes or shows some unwanted colours or artifacts or the system simply does not boot up. Try reducing the core clock and then start increasing the memory clock in increments of upto 20 MHz.

Repeat the process that you did previously till you reach a level beyond which you start facing any problems. Perform all your stress tests again and get readings and see the improvement in your card's performance.



MSI Afterburner showing the sliders for the clock speeds. Card used : Palit GeForce GTX 460

Now note that since you are overclocking your card using a software utility, unless you save the overclocked Core and Memory clock, the card will start from the stock speeds when you restart your system. MSI Afterburner and so do other utilities allow you to save your clock speeds in the form of profiles. So next time when you restart your system, all you have to do is go in the software utility and enable your preset profile.

This is the basic way to overclock your GPU. There are advanced ways to get even more performance out of your GPU by using external cooling solutions or hard modding your graphics card – by adding resistors and other components on the card. We will cover that some other time. For now, go ahead and get more frames per second and enhanced gaming by overclocking your GPU. d

Social Networking

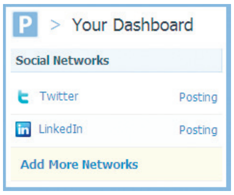
We show you the quickest ways to keep connected

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

We're going to make a not-so-shocking revelation. "For an average user, social networking accounts for the most time spent online!" So here's how you can get even better at it.

Use all in one messengers

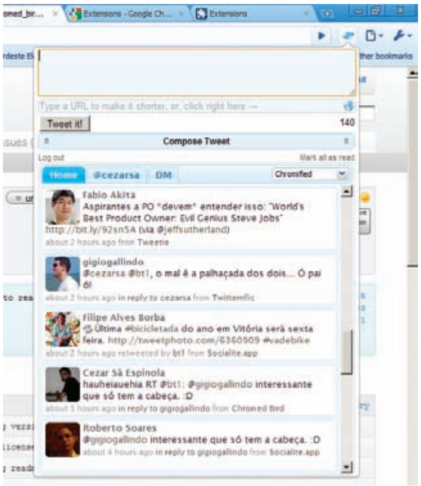
Why use separate instances of Gtalk, Yahoo!, MSN, IRC, Facebook chat etc? Instead you can use a multi-protocol messenger such as Digsby (http://www.digsby.com/) or Miranda (http://www.miranda-im.org/) to aggregate all your chat and social networks into one place. Of these Digsby is more visually appealing while Miranda is robust, offering pluggin support and customisation.



Ping.fm dash board

Use extensions

Extensions, especially on Google Chrome allow you to do a lot more and a lot faster when it comes to keeping track of updates and updating your social networks. Social networking, be it Facebook, Twitter, LinkedIn or any other network, is all about now. You need access to updates all the time. Chrome extensions such as "Chromed Bird", "Facebook for Google Chrome." etc give you notifications for comments, updates, and replies. They'll also allow you to update status right from a pop-up bubble without ever changing tabs. Head over to https://chrome.google.com/extensions/ for a wide array of extensions.



Fabio Akita
Aspirantes a PO "devem" entender isso: "World's Best Product Owner: Evil Genius Steve Jobs" http://bit.ly/92snSA (via @jeffsutherland)
about 2 hours ago from Tweetie

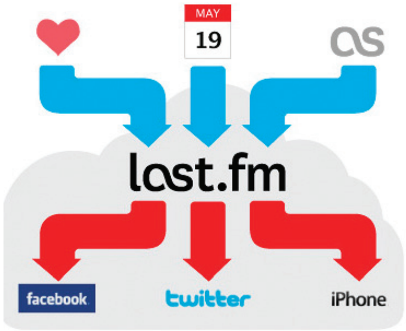
gigiogallindo
@cezarsa @bt1, o mal é a palhaçada dos dois... Ó pai ó!
about 2 hours ago in reply to cezarsa from Twitterrific

Filipe Alves Borba
Última #bicicletada do ano em Vitória será sexta feira. http://tweetphoto.com/6360909 #vadebike
about 2 hours ago retweeted by bt1 from Socialite.app

Cezar Sá Espinola
hauheiauehia RT @bt1: @gigiogallindo interessante que só tem a cabeça. :D
about 3 hours ago in reply to gigiogallindo from Chromed Bird

Roberto Soares
@gigiogallindo interessante que só tem a cabeça. :D
about 4 hours ago in reply to gigiogallindo from Socialite.app

Chromed Bird extension in action



Linking networks

Phone apps all the way

If you're not using your phone to network on the go, you're loosing out on a lot of precious moments in your daily commute where you could be catching up on a lot of happenings. iPhone and Android will have a host of apps but when it comes to lesser mortals like J2ME and Symbian we've found Snaptu to be a very good performer. It's light and fast on the slowest of phones.

Use one-to-many updaters

One of the painful and time consuming aspects of social networking ironically is updating your status on all of those social networks you so enthusiastically joined. Fret not, services such as www.ping.fm will help you update your status in a jiffy on all of your social networks at once. The webapp has an amazing number of services under its umbrella; from common ones like Facebook, Twitter, MySpace to obscure ones such as Identi.ca, Tumblr, and StatusNet. We lost count at 34! Of course, if you don't like ping.fm there's always www.hellotxt.com

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Let it off the leash

Here are a few tips on how to speed up your wireless connection

Robert Sovereign-Smith
editor@thinkdigit.com

Thanks to plummeting router prices, everyone has a wireless network at home or office. However, not all of us are getting the most out of our routers.

Buy right

You can't really assess a router's performance based on its price alone – because some high performance routers based on the 802.11g standard are much more expensive than, say, entry-level 802.11n routers – but if you have 802.11n devices, they'd perform better on an entry level n-based router.

The 802.11n standard offers a peak throughput rate of 150 Mbps, while the older 802.11g offers rates of just 54 Mbps. Although you'd still need your laptop or hardware to be 802.11n capable to make full use of such routers, it's not a bad idea to plan for the future and invest in one. Most W-Fi-enabled products now come with 802.11n support.

If you want to just share the internet connection, any Wi-Fi router will handle internet speeds with ease, but the minute you try and transfer large files over the air, from, say, your laptop to your PC, the slow speeds of 802.11g routers is apparent.

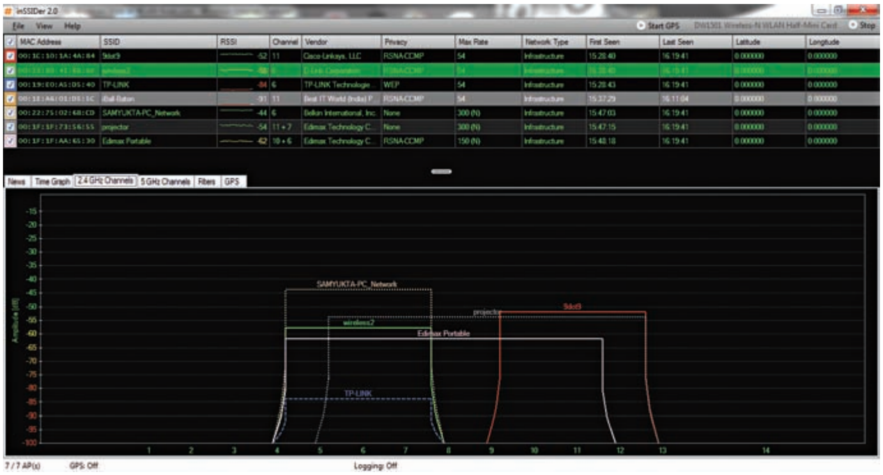
Channel surfing

Download inSSIDer from MetaGeek (metageek.net/products/inssider) and run it on a laptop. This will list all of the channels that other people's routers are broadcasting on. Find the most unused channel, and set your router to use that one. In city buildings, where a lot of people have wireless routers, certain channels (usually the manufacturer-set default) can get congested, and this results in slower network speeds.

Card settings

Just as with the router, most people leave their PC's wireless settings at default, which is not always optimal. Instead, look at the settings and change them to whatever "sounds faster". We say this because the actual settings depend on the card you have – each manufacturer details their settings differently. In general though, look for the following settings:

1. Roaming: This setting determines how often your card will look for new networks, in order to try and connect to the one with the strongest signal. In a home setup, this should be set to the lowest setting possible.
2. Power: Unless you're bothered about battery life, set this to the setting that uses the highest power. This is usually displayed in two very different ways – some cards directly ask you to choose between "Max power" or "Best Performance", whilst others may choose to mention this setting in terms of power consumption savings, in which case you should "Disable" this setting.
3. If you have a 802.11n router, and your laptop is 802.11n-capable, make sure to use the setting that forces n-mode.
4. Make sure to look-up your card manufacturer's site, and understand what the settings mean, and accordingly change them to whatever translates to maximum performance.



☑	MAC Address	SSID	RSSI	Channel	Vendor	Privacy	Max Rate	Network Type	First Seen	Last Seen	Latitude	Longitude
☑	00:1C:10:1A:4A:84	9dot9	-52	11	Cisco-Linksys, LLC	RSNA-CCMP	54	Infrastructure	15:28:40	16:19:41	0.000000	0.000000
☑	[illegible]	wireless2	[illegible]	[illegible]	D-Link Corporation	RSNA-CCMP	54	Infrastructure	[illegible]	16:19:41	0.000000	0.000000
☑	00:19:E0:A5:05:40	TP-LINK	-84	6	TP-LINK Technologie...	WEP	54	Infrastructure	15:28:43	16:19:41	0.000000	0.000000
☑	00:1E:A6:01:D8:1C	iBall-Baton	-91	11	Best IT World (India) P...	RSNA-CCMP	54	Infrastructure	15:37:29	16:11:04	0.000000	0.000000
☑	00:22:75:02:68:CD	SAMYUKTA-PC_Network	-44	6	Belkin International, Inc.	None	300 (N)	Infrastructure	15:47:03	16:19:41	0.000000	0.000000
☑	00:1F:1F:73:56:55	projector	-54	11 + 7	Edimax Technology C...	None	300 (N)	Infrastructure	15:47:15	16:19:41	0.000000	0.000000
☑	00:1F:1F:AA:65:30	Edimax Portable	-62	10 + 6	Edimax Technology C...	RSNA-CCMP	150 (N)	Infrastructure	15:48:18	16:19:41	0.000000	0.000000

InSSIDer – congestion check

Placement

You can use inSSIDer to also test the placement of the router in your home or office. The best way to do so is to walk around with your laptop, and look at the signal strength in the areas you're likely to be sitting in. Maximum signal strength translates to better throughput performance, so make sure your router is placed in an ideal location.

Drivers and Firmware

You should ensure that you always have the latest drivers installed for your network card, and also keep checking your router manufacturer's site to ensure that you have the latest firmware. Very often, updated drivers and firmware translate to more performance tweaks. But keep a copy of your current firmware handy too, and ensure that you don't lose power during the update procedure, or you might brick your router.

Too many devices

Don't make everything connect wirelessly! For example, a lot of the time people will keep a gaming console (PS3/XBox/Wii) right next to the router, but use Wi-Fi instead of LAN cables to connect them. The fewer devices connecting to the router, the faster the speeds, it's that simple a rule!

Follow these simple tips and you can easily increase your wireless network, for free. However, in office setups, it might be advisable to invest in repeaters and signal boosters to improve performance, and thus, increase productivity. d

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Photo: Jiten Gandhi

We built a REALLY fast system, and made it even faster!

A Beast is Born

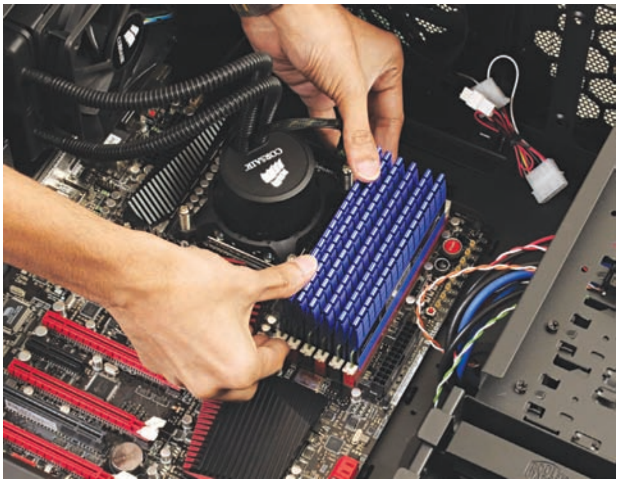
Rossi Fernandes
rossi.fernandes@thinkdigit.com

We've seen a lot of people build fast performance systems but with the kind of hardware that is available today, we at Digit aren't the kind to say "that's good enough". So just when this year is about to end, we decided that we wanted to build something quick. We wanted to build what most definitely was going to be India's Fastest PC!

Now, there are plenty of people who set up nitrogen cooling rigs and hold records for the fastest processor. But can those systems be run for more than a couple of hours. We wanted to build a rig that was going to be hopefully, one of the fastest in the world, but yet practical and could be run for long periods of time without having to be refuelled with liquid nitrogen.

The machine

We wanted to be sure we got the best we could find. After considering a lot, we finalised on a list. The fastest desktop processor, a 6-core Intel Core i7 980X would be at the heart of the system. The Extreme class processor would ensure we had enough flexibility when we got started with the overclocking. The motherboard, an ASUS Rampage III Extreme was one of the best X58 boards around. There are tons of BIOS tweaking options to help get the best possible performance out of the processor. To ensure there weren't any bottlenecks, we chose to go with 12 GB



In go the six sticks of 12 GB DDR3 memory

TEST SCORES

	Stock Speed (3325MHz)	Overclocked (4123MHz)	Overclocked (4412MHz)
3DMark Vantage			
Overall Score	34674	39494	41399
GPU Score	36138	40099	41828
CPU Score	30916	37785	40161
HAWX			
1920x1200 / DX10 / 4x FSAA / Max Detail	148	154	165
1920x1200 / DX10 / 8x FSAA / Max Detail	139	146	151
Far Cry 2			
1920x1200 / DX10 / Ultra High	146.21	162.56	181.95
1920x1200 / DX10 / Ultra High – 4x AA	143.51	160.22	178.26
1920x1200 / DX10 / Ultra High – 8x AA	143.75	156.79	167.56
Cinebench 10			
OpenGL	8711	9934	10158
Multiple CPU Render Test	21546	26861	28249

of Kingston DDR3 HyperX RAM. Our faithful WD Velociraptor would be the drive of choice for this supreme system. One Velociraptor would suffice, but we thought we'd push the envelope. We went with a RAID 0 configuration with two WD Velociraptors.

The grand gaming performance would have to come from a really powerful graphics card. Once again, the fastest card had to be procured. XFX's Radeon 5970 was the card. But wait, one card wouldn't be enough, so we got two of them. XFX sent us their Black Edition Radeon 5970s cards. To power this mammoth of a system, we needed a reliable power supply and of course, a chassis. Cooler Master's Silent Pro 1200W Gold rated power supply was used to power the two power hungry Radeon 5970s. The Cooler Master HAF X chassis would have ample space, plenty of fans and it would be sturdy for our needs.

Corsair sent us their H50 liquid cooling unit. Keep in mind that we were looking to build a stable, everyday use system. The H50 might not be the ultimate water cooling kit in the world, but it sure is compact, easy to setup and it does the job rather well. Monitoring the Intel Core i7 980X idle at 33C gave us a good feeling.

A few Velociraptor drives for the RAID

We weren't going to be using a silly 17-inch CRT for this system, so we called in for a Viewsonic VP2655WB, a 26-inch IPS panel LCD from the Pro series of displays. Just the sight of the desktop made most of us hate the TN panel LCDs we're so used to seeing. The Razer Lachesis was brought in for the gaming that might occur post-overclocking.

BEAT OUR SCORE..

...and you and your rig could be featured in one of our upcoming issues!

Let's start assembling

We put together the entire rig one piece at the time. We started by mounting the processor on the board and applying a thin layer of thermal paste on it. The mounting for the H50 cooler hooked on to the board easily and then went the main block. We then connected the radiator unit to the back of the cabinet.

The memory went in next, followed by the two Radeon 5970 graphics cards. The installation was a close fit with the two cards hugging each other. The Velociraptor drives and the power supply followed. Quite honestly, the cable setup was not the ideal setup. We're talking of two auxillary power connections, four power connections for the power supplies. Two more for the hard drives, one for the optical drive, and a large 24-pin power connector for the mainboard.

We booted up with fingers crossed to see if it would be one of those starts without hiccups. It proved to be so. The idle temperature of the processor didn't cross 33 to 35C, which was a good sign. A quick run to 4 GHz was successful in a matter of seconds. Remember that the stock speed for the Core i7 980X is 3.33 GHz (133 x 25). We left the settings to the defaults, and went ahead with the Windows installation.

The tests and benchmarks

Testing of the system was no different from other products. We installed the latest drivers for the graphics card and the motherboard along with the RAID controller. The drives were setup in RAID 0 configuration for the best performance. The plan was to note down a few scores and then overclock the other components.

A couple of benchmarks were installed and we were on our way. The initial scores we received were all very promising. The scores of the initial and final runs are given in the table.

Let the overclocking commence!

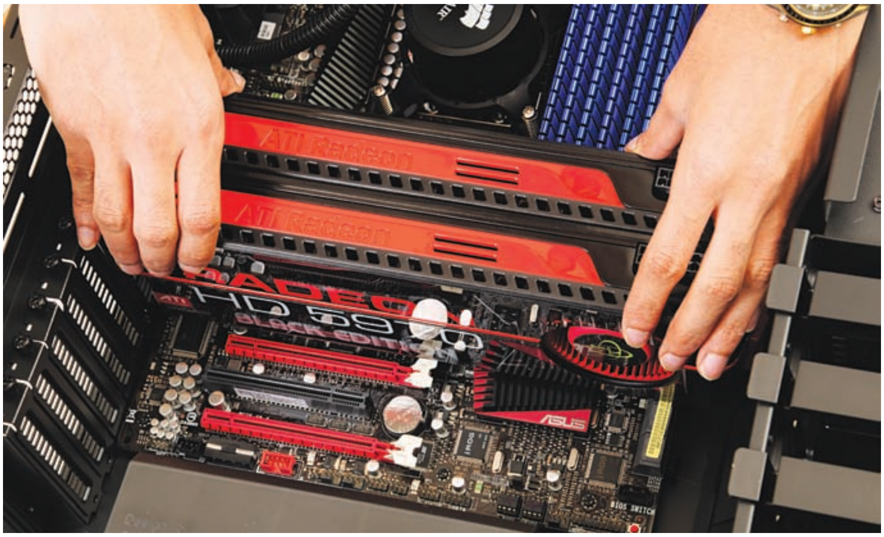
The setting up of the rig went on

into the early hours of the morning. Overclocking only began after that. The first trial run showed us that we could cross 4GHz without any issues. This was only in the BIOS. We would have no issues with posting. The BIOS was setup to disable any thermal protection and alerts. There would be no throttling down of the CPU, so we would know immediately if we were going to face instability. Throughout our exercise we noticed BSODs during bootup, and sometimes while running benchmarks.

We would use CPU-Z, GPU-Z and SpeedFan to monitor the various statistics of the graphics card and processor. Cinebench was our stress test for the processor once we over-clocked it a step higher. A 100 per cent load on the CPU for more than 30 seconds would result in an instant bluescreen of death or a lockup.

Finally, we started our overclocking run. Initially, the clocks were pushed higher by simply switching multipliers and we were easily able to touch around 4.1GHz without much effort. Once we reached 4.2 GHz or so, we hit a road-block. Depending more on the board's clock frequency was the way to go. We cut down on the multiplier and started focussing on incrementing the FSB. Finally around 4.3GHz, we hit another roadblock. The overclock was stable till we booted into Windows. Benchmarks would throw up BSODs and sometimes even just a CPU-Z or SpeedFan application would cause instability.

Attaching the mount for the Corsair H50 cooler



The two Radeon 5970s ready for action

It was time to tweak the voltages to improve stability. We went with over-volting the processor by a bit to get that stability. After multiple combinations, tweaks and reboots, we hit our magical figure of 4.4 GHz or 4412 MHz to be precise. We were able to cross 4.5GHz and boot into Windows, but not enough to achieve stability for benchmarks.

The Results

The results of the overclock and build are nothing short of impressive, even for us. Majority of the overclockers online don't cross 4.1 GHz overclocks on a 980X. The 4.4 GHz overclock we achieved, lets the processor idle at around 40 C and under load, it peaks out at around 63 C. We can assume this setup to be stable enough to run day and night without any problems.

The Corsair H50 does a great job of cooling the Core i7 and although compact and simplistic, it isn't far behind large heavy duty cooling units.

Coming to scores, the stock setup itself was the fastest we had seen and the likelihood of anyone using such a system is pretty slim. The stock frame rates in Far Cry 2 at the absolutely highest quality settings, was mind boggling. Turning on FSAA to 4x or 8x hardly made a difference to the scores.

Overclocking only boosted this performance by a lot. The overclocked processor ran 32 per cent faster. For the fastest desktop processor that Intel sells, it's a lot. The performance wasn't only limited to processing and graphics rendering either. The RAID setup drives were churning out numbers not reachable by standard drives. To give you a gist, we were seeing 200 MB/s read speeds . The graphics cards we used were extremely hot. Fortunately, they were factory overclocked but we would have liked to push them a little bit further. It would have helped us reach the 44,000 figure in 3DMark Vantage.

What we've managed to do is build the fastest gaming PC in the country. It doesn't look like this kind of performance will be available on a single graphics card for at least a year to come. The approximate cost of the entire system was around 2.5 lac rupees. We've achieved what we set out to build, and most of the guys at Digit should be occupied with playing games at the most ridiculous quality settings ever. d

CONFIGURATION	
Processor	Intel Core i7 980X
Motherboard	ASUS Rampage III Extreme
Graphics Card	XFX Radeon 5970 Black Edition (x2)
Memory	Kingston HyperX DDR3 (6 x 2 GB)
Hard Drives	WD Velociraptor 300 GB (x2)
Power Supply	Cooler Master's Silent Pro 1200W
Chassis	Cooler Master HAF X
Mouse	Razer Lachesis

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It's funny how we begin to take some things for granted. Like huge malls, mobile phones or expressways. It's funny because till a few years back we could only dream about such things happening to us. But there's another turning point which we often overlook, something which changed our lives forever. The power to travel. From waiting endlessly in queues to reserving seats to dealing with shady touts, preparing to travel was a thoroughly unpleasant experience. Before online travel bookings. Before, need we say, MakeMyTrip.com. A pioneer in the online travel and hospitality space, MakeMyTrip.com blew a draught of fresh air into the musty world of travel. From ease of bookings to convenience of planning your travel plans and from secure online payments to providing multiple choices of venue, MakeMyTrip.com opened a new world to the people of India. And the people of India took us to their heart. Making us the country's leading online travel portal. A lot of people ask us how we managed so much in such a short time. And we always say it's our people and the way we work. With integrity, respect for another and above all, having fun at work. Exactly the qualities our customers experience. As we celebrate yet another milestone in our short history, we would like to thank everyone who helped us go places so we can continue to help you go places.

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Lightning fast computing

Siddharth Parwatay
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Technology on the nigh horizon will make computers faster than ever before. Read on and get a glimpse into a blazing future

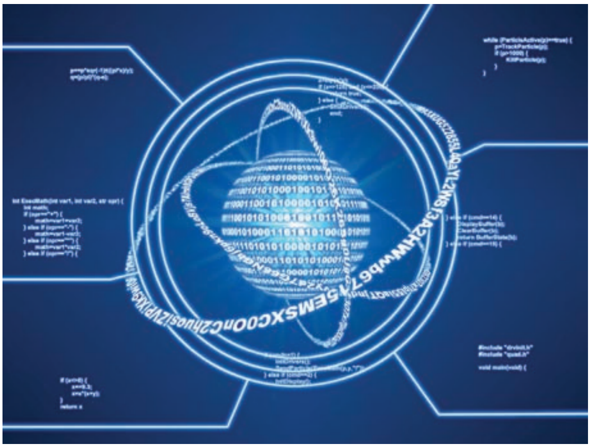
From the bygone era of early computing, when clunky behemoths of first generation computers were considered fast, to the pocketable miracles of today; we have come a long way. Computers have grown to be faster, smaller, and more energy efficient almost exponentially, and keeping in tune with Moore's Law. But as chip sizes go smaller, in an effort to pack in more and more circuitry to speed things up, fundamental physical restrictions come in the way. The chips start leaking signals and won't hold digital information anymore. So then, are we at the frontiers of what can be done? Not at all. We've just barely begun to scratch the surface to unlock the secrets that computing can unfold. Bottlenecks will be a thing of the past, internal data speeds will increase beyond our wildest imagination, computers will be able to keep up with our thoughts, and the very definition of computing will change. Here's a look at some of the technologies on the drawing board which inventors, scientists and futurists alike are excited about that will make computing faster than ever before.

DNA computers

A fusion of technology and bionics has for long been the holy grail for science. One of the explorations in this field is the possibility of using DNA to perform complex calculations. If you look at conventional computers, they're at their heart machines, that perform calculations; even when they're playing your favourite MP3 track. These calculations are performed via electronic impulses that run across silicon circuitry. Again, the limitations of silicon prompted researchers to look at alternate materials. And they couldn't have come up with a more absurd one – DNA – essentially the building blocks of life. When you give it further thought, it's but natural. After all, genes do store a hell of a lot of data and can perform millions of calculations every minute throughout an organism's life. In theory we're walking around with billions of supercomputers inside us. In DNA computers, DNA molecules can be used to perform calculations using enzymes. When they undergo reactions at a molecular level, calculations and simple operations are a byproduct. To demonstrate this in 2002 scientists from the Weizmann Institute of Science in Rehovot, Israel created a computing machine based on this principle to solve simple mathematical problems. The composition of the DNA can be manipulated to control the type of output. The speed advantage here is that unlike conventional computers that operate linearly, billions of molecules will attack the problem parallelly. The problem that such computers could solve are those that involve infinitely large number of possibilities such as weather prediction for instance. Problems that conventional computers might take years to perform would be solved in a couple of hours. Wonder if they'll play a 3D blu-ray though?

Quantum Computers

Just like DNA-based computers the idea of Quantum Computers has been around for some time now, but with each passing year, it comes closer to reality. Quantum mechanics is all about entering the subatomic world of particles such as neutrons and electrons. These computers will make use of



Adam Novagen

quantum properties of electrons to exist in a dual state to perform calculations. Recent experiments have shown that the spin of electrons can be controlled to go in either one direction or the other, thereby giving them a particular state (either one or zero) just like in regular computing. The difference here is that the change in state will let electrons occupy these two states and any positions in between all at once – thanks to the quantum property of superposition i.e the ability of particles to behave as waves. Think of a taut piece of wire attached at two ends. If you give it a pull and if the vibration is right, you will find that one end is going up while the other is going down. As a wave it'll appear to cover every position in between too. As opposed to a binary bit, this makes qubits (quantum bits), represent exponential values. Two qubits can represent four, three could represent eight and so on. A finite number of qubits can represent 2^n states. This power can be harnessed to solve huge problems such as decryption exceedingly quickly. Quantum computers are still largely theoretical. A sixteen qubit computer created by Canadian company D-Wave was used to solve sudoku and other pattern recognition problems. But the day won't be far when these computers move out of playing silly games, and start cracking codes or searching all of the world's databases in the blink of an eye.

Interfaces of the future

What's the use of lightning fast computers if they still have to wait on slow pokes like us (humans) for instructions? This is where newer methods of interacting with our computing better halves come into the picture. Recently researchers in Israel developed a software that could replace expensive retinal scanners. The company ID-U, believes that every person has a uniquely identifiable pattern of eye movements. Using a simple webcam they aim to create an authentication tool. This technology however has some fascinating corollaries that can be drawn. If eye movement can be mapped with such accuracy, its not hard to imagine eye movement controlled interfaces. In fact this latest find comes in a long line of projects intended to assist the handicapped or paralysed. If such technology were to reach the mainstream, we could completely eliminate the lag which occurs when your hand moves slowly to catch up with what your eyes have seen ages ago.

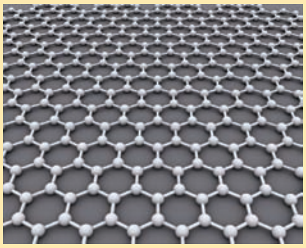
A step further would be thought controlled computers. Flawlessly interfacing with computers in real time with perhaps not just the input commands but the resultant output being directly beamed to the optic nerve to form an augmented reality overlay. In our last issue we pointed you to an article on Gizmodo that featured a rat that controlled a car with its thoughts. But of course no one would want implants and electrodes sticking out of their cranium. Fear not research is ongoing to send impulses to the brain via ultrasonic sound waves.

Artificial Intelligence

Envision a scenario, a few decades from now, where many of these experimental technologies have been put into place. You know, those Sci-fi scenarios that futurists often dream of: You get up from bed, and as your feet touch the floor, it illuminates, signalling embedded systems to initiate sequences to prepare you for your departure. Your morning news gets displayed on the bathroom mirror while you brush. Your clothes for the day, carefully picked based on your itinerary and appointments (digitally analysed beforehand), swing into view on a carousel as you open your closet. Meanwhile your car switches on and keeps the AC on to just the right temperature after checking with the weather forecasts. These scenarios require two important things – one is tremendous computational power (which will come from some of the computing advances described earlier) and the other is the ability for computers to 'think'. The latter is where AI kicks in . You're probably thinking this scenario is too far fetched. How will it help speed things up in the near future? Soon when AI achieves a certain level of maturity, you will find that it will keep one step ahead of you to make things easier for you on your PC. Your daily usage patterns from boot up will be analysed, the context of what your reading will be analysed. The calm reassuring voice of 'Jarvis' will tell you "I'm already on it sir". So the next time you select text and hit Ctrl+C a notepad file will already be open and waiting. Combine this with thought computing and you won't even have to talk to your computer's AI persona – that's computing at the speed of thought.

DID YOU KNOW?

Graphene - carbon that is as think as one atom - could be used to make electronic circuitry that would be much faster than silicon. The advantage is that silicon becomes unstable below 10 nanometers, but Graphene makes it possible to carve transistors that a just about a nanometer wide. Incidentally Graphene is the world's thinnest material and could have applications in quantum computing. The two scientists from Manchester University who discovered Graphene (Professor Andre Geim and Professor Konstantin Novoselov) were awarded the nobel prize in physics last month.



Graphene - the one atom thick lattice of carbon

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3G SERVICES

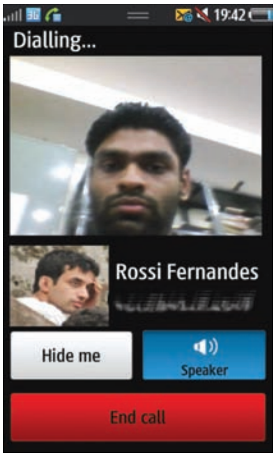
Is it really here? Or do we wait and watch?

That India's telecom industry is among the fastest growing in the world is no secret. To add to it, as Indians, we enjoy the lowest telephone tariffs in the world. Attesting the significance of telecommunications in emerging India, the recently concluded 3G spectrum auction boosted the exchequer by approximately ₹67,719 crores ($15.12 billion). What consumers don't realise readily is that this $15 billion will be recovered indirectly in the form of access fee, and primarily tarriffs. If your mobile operator paid ₹10,000 crore to be able to give you 3G services, there's no way it would be able to let you stream video and have video call conferences with the cheapest tariffs in the world.

In early 2010, Sunil Mittal, Chairman, Bharti Airtel, had commented, "Take the example of Delhi itself, or Mumbai. The amount for spectrum that has been charged is close to ₹3,500 crore each... just to recover licence fees and input cost, it works out to be ₹700-900 per month," ₹700-900 per month doesn't really sound cheap by Indian standards. We're price conscious! However, while unveiling Airtel's new logo late in November 2010, all he had to say was that Airtel would ensure that 3G services are "affordable" (with no further elaboration).

It must be quite a nightmare for telcos that have paid large premiums to be able to be eligible to operate 3G services in a few circles. A tricky scenario is that owing to complications and rising costs, no single operator has been able to bag a nationwide licence. Only three operators (Airtel, Vodafone and Reliance Communications) have bagged licences in the most number of circles – 13. In case you didn't know, the state of India is divided into nearly 24 telecom circles. A direct implication of this is that in case you are critically dependent on 3G for voice-data convergent communications, while on the move your operator needs to have significant tie-ups with fellow operators for roaming.

The only operators to effectively execute this synergy between the urban and rural divide in India are state-owned operators MTNL and BSNL. Where they do take a beating is customer service. As far service availability is concerned, you should go on a road trip through the highways across the nation and experience BSNL's vast and deeply penetrated cellular network. Not very long ago, BSNL used to be 7th largest telecom operator in the world. If you are an existing 2G subcriber with any of the remaining private operators you wouldn't have access to this wide network in rural India. Also given that no operator has a pan-India licence, your 3G licence will not be seamless when on roaming. Comparatively, GPRS and EDGE services are available in networks across the country.



Holding the phone in front of you doesn't feel very comfortable for long

First hand experience

State-owned operators MTNL and BSNL were the first to launch 3G services. In Mumbai, MTNL has been offering 3G services for over a year, yet the response has been mixed. To get a feel of user experience, we asked our readers about GSM 3G services.

We wanted to know for sure, so we got ourselves an MTNL SIM card. All said and done, we had our share of hiccups in the beginning. It began with the initial recharge. When we called up customer care to activate 3G, we got an announcement that said, "the number you have dialled does not exist." May be that was not the exact start we were looking forward to!

According to Tata DOCOMO's latest pricing, all calls are on a per-second pulse with a validity of one month.

Price ₹	Monthly minutes Local + STD	3G Data Units
500	750	250MB
750	1250	500 MB
1000	2000	1 GB
2000	5000	2 GB

When we sent the required message, we waited for a couple of hours to receive the necessary setting, but nothing happened.

Similarly, Digit community member Prasanna Vathanan adds, "I'm using BSNL 3G services on my HTC Hero. I'm able to view all mails easily and attachments and downloading is fast. It saves me time as I can view and respond to customer queries instantly, which is painful even on an EDGE network. I tried video calling, but it has a major disadvantage as you need to keep the phone in front of you and talk with everyone around able to hear you. There's no privacy in video calls. BSNL customer support and data plans are very bad. So

HOW DOES SPECTRUM AFFECT US?

A spectrum is a range of electromagnetic frequencies that your mobile company needs to own to be able to beam the network to your handset. This is similar to the FM frequency owned by radio companies. Owning a frequency involves payments of hefty amounts and thereby involves humungous investments even before implementation of costly infrastructure required to begin operations. Given the critical and strategic commercial significance of allotting spectrum, increasingly governments around the globe prefer auctions rather than an apply-and-alocate approach and install time.

awaiting for private players to jump-in."

Even our own experience with MTNL seemed to invoke the very same sentiments shared by Vathanan. We would like the Quality of Service to improve drastically, or at least be offered better services by other providers that are waiting to make an entry in this vast market.

The whole nation is watching over this one sector that eased our fiscal deficit by the revenue it generated earlier in the year. It should have been an out-of-this-world experience with video calling and video streaming. We began using 3G services with enthusiasm that was soon washed away as we got used to the technology. We tried asking operators about their plans and tariffs. Surprisingly, 3G announcements were not on their priority. If you'd take a closer look at all developments in the 3G space, it's primarily the same old story – the most you'll get to hear is bragging about winning licences in x,y, z circles across India.

THE FUTURE?

Around the end of 2009, Sweden's Telia-Sonera implemented 4G networks in Oslo and Stockholm. With current GSM networks, you can download at a maximum of 236.8 kbps. Migrating to 3G, you'd get a boost to a maximum of 2 Mbps. With 4G, it's a mammoth 100 Mbps on your device. That's close to a ten-fold increase than your best mobile experience ever

So far, DoCoMo is the only operator that has gone ahead, launched its services and also announced tariffs that will follow a pay-per-use model. The rest of them seem to be waiting and gauging the market before commenting or even making announcements. They better be worried for once, so that we as consumers could benefit in the long run. There were other events, or plans that seemed far more important. Seems like they're all apprehensive about your reaction to their pricing and it turns out that all operators are following a wait and watch policy. Certainly, if you are one of those that don't mind opting for an operator that doesn't let you connect to customer care when you need it the most (and if you get through to someone who can't really answer your queries) then MTNL is your safe bet.

We spoke to **DPS Seth**, Member, Telecom Regulatory Authority of India (TRAI) to get a feel of what lies ahead with all the hype surrounding 3G

Q. Tell us about number portability. Will it be a game changer with customers switching operators to get better 3G deals?

A. The general trend the world over is that when you introduce number portability, there is usually a lot of enthusiasm and substantial shift, which later settles down. When that is happening there has to be something which will promote the desire in the heart of the consumer to change. The change itself can also be something that makes the subscriber unhappy about the quality of service. On this front, all operators are in poor shape and on equal footing.

You can expect users to go in for 3G services because these networks will be relatively new networks that are recently installed and will not be congested. Also in order to use 3G services, subscribers will have to procure newer handsets. High-end customers will definitely migrate to 3G, resulting in higher average revenue per user (ARPU). This is something even operators would want, so that they can create some space in the 2G network – enabling them to add more customers or ensure better quality of service.

Q. What kind of 3G tariffs do you expect?

A. I do not expect 3G tariffs to be more than the existing 2G tariffs, for the simple reason that at least for the next couple of years, the traffic on existing 3G networks will essentially be voice traffic. As data applications develop, only then will the add-on data charges really contribute towards the ARPU for 3G, over and above the voice contributing component. Essentially, if it's going to be voice-based traffic, tariffs can't be higher than 2G. Otherwise there won't be any incentive for anyone to go in for 3G services. In fact, we have a parallel in the UK. An English telecom operator had begun 3G services with tariffs lower than existing 2G tariffs to popularise 3G services.

Q. Practically, how long do you think it would take for a pan-India implementation of 3G services?

A. The telecom sector is a highly capital-intensive sector. Therefore, operators need to generate revenues and in turn invest capital in further geographical expansions. At least for the next couple of years, operators would be busy with the implementation of 3G across states. But, there needs to be some incentive for widespread adoption of 3G, especially in rural areas because there is a dearth of disposable income available for spending on telecom.

Q. Have we taken long to switch to 3G? On a global scale, how would you place India as far as 3G is concerned?

A. "Have we taken long enough" is an understatement. The transition should have happened long ago. We should have migrated to 3G at least four to five years ago.

Q. Several other countries are now moving beyond 3G, by upgrading the data component to HSPA+. Where do you see India going forward? How long do you think India would stay with 3G before moving on to LTE or 4G?

A. It is really not a question of one or the other. The general thinking now is that 3G and LTE will be complementing each other. Both technologies are good for certain purposes. First of all, LTE is not 4G. It is rather 3G+ or 4G- (anything but 4G). The trend is moving towards IP capabilities with focus on data networks. While HSPA networks are optimised for voice, LTE networks are more suitable for data. Unless, there are reasons for users to use exceptionally large bandwidths, there is still a long way to go. What we would eventually witness is a scenario where 3G would handle the voice segment while LTE would handle the data segment. There could really be a harmony or sorts.

Linux vs. Windows Perspective from the Fence

From greybeards to newbies, what do you think?

Rudresh Jariwala
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Let us get this clear from the start! This is NOT your run of the mill Linux vs. Windows “which is better then the other” comparison. Think of this as an aggregation of thoughts from user’s with varying years of expeirence, all bundled into one clean, up to date package. And with speed being the theme of the month, we are also throwing in some bonus stats from some speed tests we conducted.

Do you have ten minutes?

Our approach to what you – the user’s think was pretty straightforward. We asked a whole bunch of user’s who had been exposed to the two computing environments what their thoughts were on certain aspects of each OS and asked for a vote on which they thought was a winner (or a tie). This questionnaire first spammed inboxes in our office and then grew into the community (thinkdigit.com/forum) where it recieved a fairly good response as well.

We found that all users who particiapted in the feedback had a minimum of 6 years of Windows experience and the *nix experience ranged from 10 days to 14 years! User’s were then categorised based on number of years of computer related experience and we brought on the onslought.

The consensus

Let’s take it from the top where almost everyone thought one edged out the other. 88% of users agreed that Linux provides better default programs post installation and frankly, we agree. Then again, there are two sides to every story. Though Linux user’s may have the benefit of better post install applications like an image editor, pdf reader, email client, Bittorrent client, office suite and Firefox as the browser, Windows boasts the best 3rd party support with powerful applications like the Adobe/Corel suite, a more powerful Microsoft Office (if you have the money) suite and here’s the trump card – GAMES! Linux has simply not seen the plethora of games that are available at the Windows’ users disposal, which deters many from considering the open source alternative.

> Speaking of browsers, the poll showed that almost all users found Firefox a better alternative to Internet Explorer. With the new and much improved version (IE 9) now though, Misrosoft seems to have a better grip on security than before. Overall, Firefox has been recieving a lot of flak off late and Microsoft is trying to regain lost ground so we recommend you read up on the latest buzz on browsers before you take a call on your browser of choice. Also check out a feature in Connections regarding what’s going wrong with the open source browser.

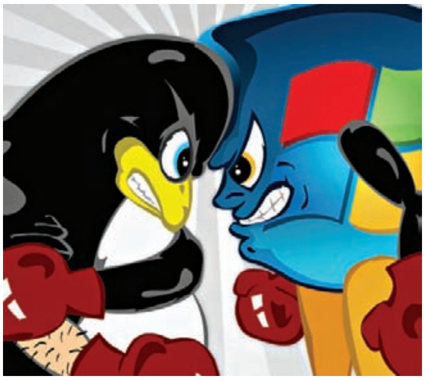
65% of the users that voted either Windows or Linux in the customisation section felt that though Windows had a much better overall audio visual appeal, the customisation options that Linux software like Compiz Fusion and TweakUI offered were better. Some users reported that giving so many choices was confusing. Networking was another place where users felt Windows was easier

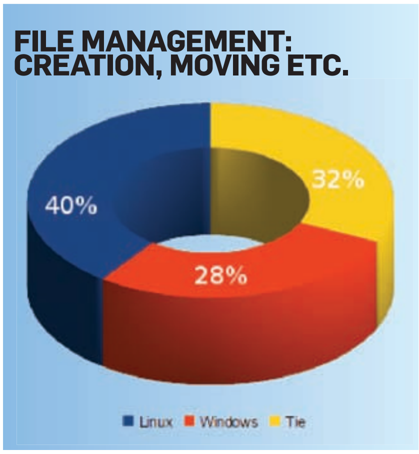
when it came to setting up of a LAN, printer and overall functionality with 74% of the votes going Windows' way.

System maintenance was strictly dominated by Linux (81% of votes were in favour of Linux) where users mostly agreed that the lack of too many Linux based malware when combined with the file system (ext4) not requiring defragmenting made their lives a lot easier. But maintenance did not cover the aspect of troubleshoting where users (65% to be exact) felt that resolving a problem by themselves in Windows was a much simpler task when compared to Linux, simply because they were familiar with the innards of the OS like the registry. Hardware support (rather lack of it) was another problem faced by Linux adopters especially the ones running legacy hardware. Windows picked this one up due to the simple fact that hardware vendors write Windows drivers but don't always do the same for Linux, leaving the open source community to put their heads together and make the driver available to users looking for compatibility. Though this is not such a rampant problem now with newer hardware, it is a point to note if you plan on running Linux on old hardware (sound drivers get special mention for the problems they face on Linux).

Points of contention

By votes, 46% of the people thought that Windows had a simpler installer whereas 35% of the votes went to Linux, with the remaining 19% saying that they are both in equal footing. The user Liverpool_fan in the forum felt very strongly about the Windows installer. "... it's HORRIBLE. It wipes out the boot loader of a previously installed Linux OS." Though we don't share his views on the former, he did bring up a valid point for those considering a dual boot (there are simple workarounds to restore your boot sequence). Some other users were defending Linux in saying that it could even be installed inside of Windows (true) but what deterred most was the fact that Linux was confusing because it offered too many choices (is that a bad thing?) in the file system, swap space etc., so we guess we should not even bother trying to explain the benefits of using a seperate root (/) and home (/home).





FILE MANAGEMENT: CREATION, MOVING ETC.

The ablity to search for and install new software also had the users pretty much splitting their opinion. Users of Ubuntu were right to point out the ease of using the Software Center whereas the counter arguement of the ease with which Windows accomplishes this task was fairly compelling as well. File management was another such criterion with users going both ways equally on tasks such as creation, deletion, search and copying.

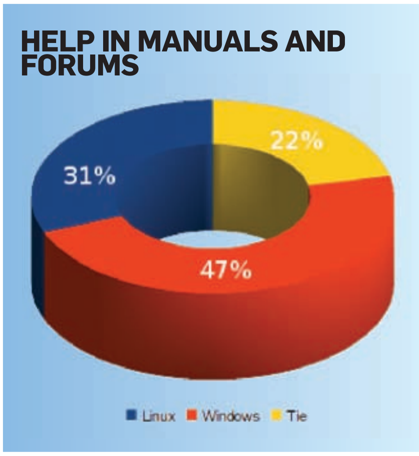
OUR TEST!

We did a fresh install of Microsoft Windows 7, Ubuntu and Mint on a PC and here are the install times of the 3 operating systems.
Windows 7 Ultimate Edition: 17m 15s
Ubuntu: 19m 35s
Mint: 23m 46s
Considering you will need to perform additional installs on your operating system of choice, we recommend you add an additional 30-60 minutes for the updating and install time.

The abililty to gain help from manuals or online forums also was a fair contest as both platforms are very well documented and have very active communities participating in the aid of someone facing a problem they can't get around.

Our Stand

In our opinion, don't be bias or too hasty to dismiss either of these operating systems. They follow different models and the open system has its pros and cons as does a closed one. Give both a fair try and then decide based upon which one suits your needs best. More importantly, keep an open mind and don't be swayed by opinions of other user's. You never know, maybe your ideal config would be a dual boot? d



HELP IN MANUALS AND FORUMS

FASTER ADOBE

Speed up Adobe products and quick Photoshop tutorials

Some tips to speed up Adobe products

Allocating Scratch Disks

Scratch disks are portions of the hard disk used by Photoshop or Premier Pro to run itself. When working with large image files, for instance, when you add layers and perform editing operations on it, these states are stored in this virtual memory called Scratch Disk. To set you scratch disk select `Edit > Preferences > Plug-Ins` and select Scratch Disks. You should choose a drive which has the most free space, as you do not want Photoshop or Premier Pro to prevent you from doing your work, if your scratch disk is full. Majority of the professionals install specific fast access drives just to be used as scratch disks.

Defragmenting your drives

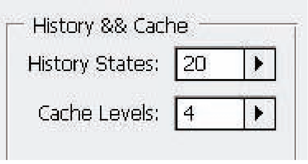
When images are saved and resaved on the disk they get fragmented which means that instead of being stored in one single location, the information is broken into bits and stored in several locations. This file fragmentation slows down the opening and saving of files which affects the performance. So it is imperative to defrag your hard drive every once in a while.

To defragment a drive in Windows XP: Click `Start>All Programs>Accessories>System Tools>Disk Defragmenter`. Choose the drive to be defragmented and then select the `Defragment` button.

To defragment a drive in Mac OS X: Despite the fact that the latest version of Mac OS X contains automatic defragmentation of files smaller than 20MB, most Apple users prefer to defrag their drives with third-party utilities.

RAM percentages

Photoshop will share the system RAM with the underlying OS and programs running at that point of time when Photoshop is open. Under `Edit>Preferences`, there is a slider which allows you to select the amount of RAM Photoshop can use. Under ideal conditions setting a higher percentage should translate into speedier Photoshop, right? Not really.

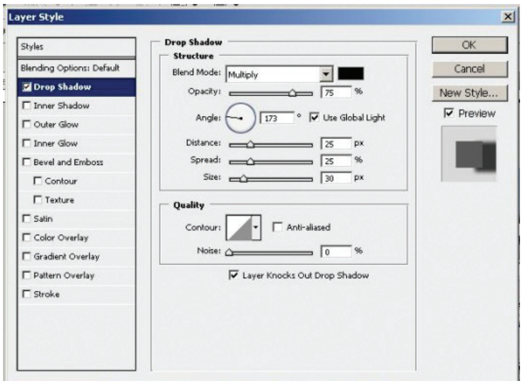

History && Cache

History States: 20

Cache Levels: 4

History states

If the percentage is kept higher, then Photoshop and your OS may need to move information between the faster RAM memory and slower hard drive memory. This is called



Drop Shadow

Structure

Blend Mode: Multiply

Opacity: 75 %

Angle: 173 ° ☑ Use Global Light

Distance: 25 px

Spread: 25 %

Size: 30 px

Quality

Contour: ☐ Anti-aliased

Noise: 0 %

☑ Layer Knocks Out Drop Shadow

Tweak the Angle, Distance and Speed of the Drop shadow in Layer Style dialog box

page swapping and that can end up slowing down Photoshop.

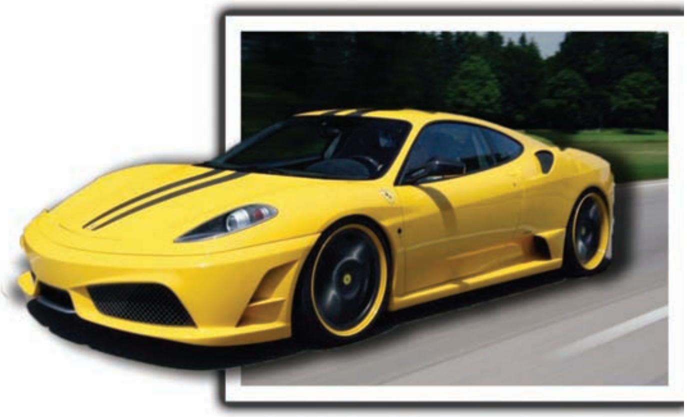
If you have 2GB of RAM keep the the allocation at 50 to 60 per cent whereas anything more than 2GB you can go upto 70 per cent.

Other quick tips

Always have only Photoshop open while using it and close all other applications that run in the background as they will tend to slow down the performance of Photoshop since they sip a lot of the CPU processing power.

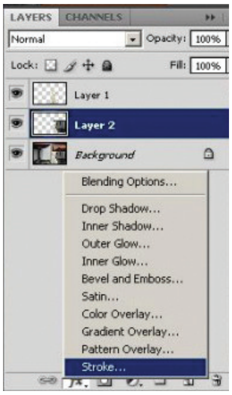
Minimise the number of history states as each successive edit in the history state is stored in the palette. It uses some memory resources. Go to `Edit>Preferences` and under the

Before : Just a car speeding down the highway


After : The car seems to come out of the photo

`Performances` tab, you will notice the default `History` states kept to 20. If you are working on high resolution images, and the number of history states is something like 30-40, then you do get lots of opportunities to undo a step that was done sometime back, but Photoshop performance will take a hit. So ideally, try to keep the `History States` to the minimum level to free up some memory resources.

Finally, though this may seem like stating the obvious, only keep those files open on which you are currently performing any tasks for the simple reason that each open image will use up some memory. More so if you perform some operation and then forget about the image, the `History` and layers palette will use up more memory.



Normal
Opacity: 100%
Fill: 100%

Adding the effects such as Stroke and Drop Shadow by clicking on the FX icon

Faster Adobe Reader

Opening PDF files may take ages for some and this has prompted many users to switch to other readers like Foxit. But you can speed up the opening up of Adobe Reader quite easily. All you have to do is disable all the plug-ins.

Go to the `plug_ins` folder in Reader. The path in our case was something like this

`C drive > Program Files > Adobe > Reader 9.0 > Reader > plug_ins`

Move all the contents of your plug_ins folder to a backup folder somewhere on your hard drive. After the plug_ins folder is empty, try restarting that PDF file which took ages to open and notice how quick the reader opens that PDF file. Don't worry, the absence of default plug-ins will not affect your Reader performance. You can always paste back the plug_ins from the backup folder into its original folder, in case you notice any problems.

Creating a 3D pop out image

Using this tutorial you can make your subject stand out from the background. This 3D effect also looks very good in images that have some action going on like a moving car, sports etc. It makes use of a very good tool found in all version of Photoshop from CS3 onwards. Its called the `Quick Selection Tool` and is present along with the `Magic Wand Tool`. So without further ado, lets jump straight into the tutorial.

Step One : Open the image. Using the `Quick Selection Tool (W)`, select the subject from the image that you want to make more prominent and want to give a 3D pop out effect. In our case our subject was the speeding car. We want to make it appear as if it is coming out of the scenery.

Once you have selected the subject, you may notice the selection tending to go beyond your subject. Hold on to the `Alt` key and try to clear the excess selection.

Step Two : Once the selection is made use `Ctrl+J` to put the selected image onto its own layer. (Layer 1)

Step Three : Select the background layer and click on the `Rectangular Marquee Tool`. Make a selection on the image, such that some portion of your subject is left outside the rectangular selection. This type of selection is will get the subject out of the selected rectangular frame to which we will add some more effects to give it a 3D look.

After selecting the rectangular area, hit `Ctrl+J` to put this new selection on to its own layer. (Layer 2)

Step Four : Now staying on the Layer 2 as above click on the `FX` icon to open the `Layer Style Menu`. Then select the `Stroke` menu which can be found at the bottom of the list.

In the window that opens, keep the colour selected to white, increase the Size of pixel and keep `Position` on `Inside`.

Go to the `Outer Glow` option in the `Layer Style` dialog box and increase `Spread` and `Size`. Keep the colour black. `Blend Mode` should be set to `Mutiply`.

Step Five : After getting the frame around your subject select Layer 1. Go to `FX icon > Drop Shadow.` Apply the settings as seen in the `Layers Style` dialogue box on the previous page.

Step Six : Select the background layer and fill it with white colour. Press `D+Ctrl+Backspace`. This is the final result as seen on the previous page.

Colouring smoke in three quick steps

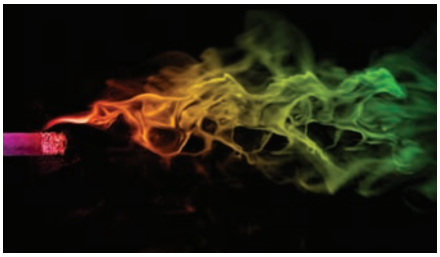
Smoke photography is quite a hobby and you will find lots of groups who post photographs of smoke and their editing with it. Adding colour to smoke is just one of the many things you can do with smoke. Instead of having a flat monotone in the smoke, you can have a range of colours as we will tell you how.

Step One : Take a photograph of image which has smoke element in it, such that the smoke is the main subject. Open a new file and drag your image file onto the new file, such that you have 2 layers.

Step Two : Now go to `Image > Adjustments > Gradient Map`. Select the black to white transition map such that your image appears like any other black and white image.

Step Three : Create a `New Layer`. Select `Gradient Tool.` Make your own preset in the `Gradient Editor` with the colours of your choice. The frame will be filled with the gradient colours. Select the `Color` mode for Layer 2, which will result in the image below. Create a duplicate layer and add `Soft Light` effect for an enhanced image. d

The original image of the smoke


Psychedelic smoke after post processing

SPEED UP OFFICE

Some handy tips to speed up your Office experience

Even before you begin using Microsoft Office, the best way to speed it up would be to clear the temp files on your system. If you are using Windows 7, go to `Start > Run`, type `%temp%` in the search bar and press Enter. XP users can go to `Start >Run`. In the text box type `%temp%`. Delete all the files that you see.

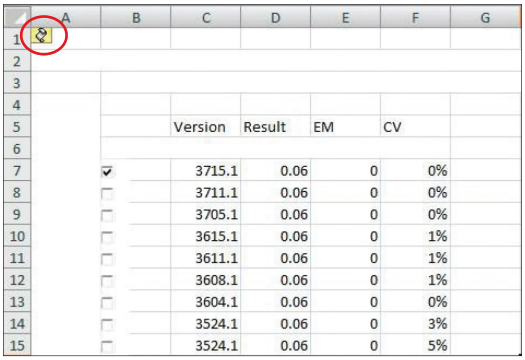
Speed up the Help dialog box in Office 2007 and 2010

The Help setting in Office 2007 and 2010 is set to Online Help by default. This means that every time you need to refer to the Help guide, Microsoft Office will connect you to Online Help page. This might take a while if you have a slow internet connection and can be irritating when you are in a hurry to finish your work.

There is a simple setting to fix this. Press F1 key in Word, a dialog box would appear. In Office 2010 Click on the 'Connected to Office.com' or select 'Connected to Office Online' button in 2007. Now click on "Show content only from this computer" from the menu.

Block unnecessary add-ins from loading

If MS Word takes way too long for start up then it maybe because it loads templates and other add-ins which you might never use. Blocking these would reduce the start-up time and your Word document would launch much faster. A quick way to do this is to move the start-up files that Word loads up each time, here's what you do. First you need to make sure that your hidden files are visible. Go to `Tools > Folder Options > View.` Under the Hidden Folders and Files select 'Show hidden files, folders and drive'. Once your hidden folders are visible, follow this path `C:\Documents and Settings\username\Application Data\Microsoft\Word\STARTUP`, from here move all the files which have a .dot extension to `C:\Documents and Settings\username\Application Data\Microsoft\Templates`. The add-ins will not load at start up now. You can choose to put the .dot files back in its respective folder if the need arises.

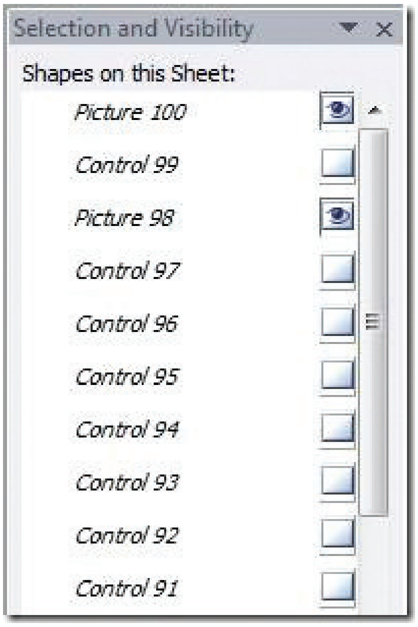


	A	B	C	D	E	F	G
1							
2							
3							
4							
5			Version	Result	EM	CV	
6							
7		☑	3715.1	0.06	0	0%	
8		☐	3711.1	0.06	0	0%	
9		☐	3705.1	0.06	0	0%	
10		☐	3615.1	0.06	0	1%	
11		☐	3611.1	0.06	0	1%	
12		☐	3608.1	0.06	0	1%	
13		☐	3604.1	0.06	0	0%	
14		☐	3524.1	0.06	0	3%	
15		☐	3524.1	0.06	0	5%	

Unnecessary data sets copied in Excel worksheet

Get more undos

Wouldn't it have been great if life had an unlimited Undo button? Only if the guys at Microsoft had designed it, we surely would have. Anyway, to clear the mistakes in your PowerPoint presentation with upto 150 undos this is what you do. Select the `File` tab in the ribbon. The Microsoft Office Backstage View appears. Click the `Options` button. The `PowerPoint Options` dialog box appears. Click `Advanced` in the left pane. Underneath `Editing options`, next to `Maximum number of undos`, click the box and enter the maximum number of edits you wish PowerPoint to remember ie. from 3 to 150. Click OK on the bottom-right of the dialog box to close it. Now you can afford to make a few more goof ups.



Selection and Visibility

Shapes on this Sheet:

Picture 100

Control 99

Picture 98

Control 97

Control 96

Control 95

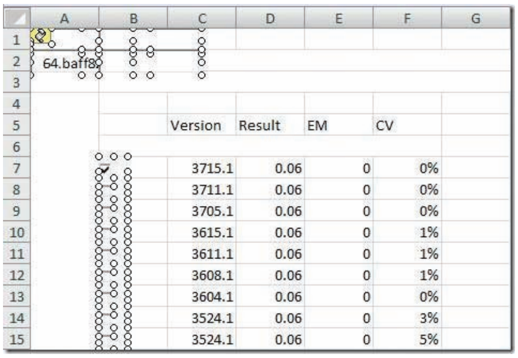
Control 94

Control 93

Control 92

Control 91

Selection Pane showing 100 items got pasted



	A	B	C	D	E	F	G
1							
2	64.baff8						
3							
4							
5			Version	Result	EM	CV	
6							
7			3715.1	0.06	0	0%	
8			3711.1	0.06	0	0%	
9			3705.1	0.06	0	0%	
10			3615.1	0.06	0	1%	
11			3611.1	0.06	0	1%	
12			3608.1	0.06	0	1%	
13			3604.1	0.06	0	0%	
14			3524.1	0.06	0	3%	
15			3524.1	0.06	0	5%	

Select objects to remove using Ctrl+G

Remove hidden and invisible objects

Many a times while pasting objects in your Excel file you tend to paste some unwanted content as well. This may be unintentional, as we copy figures, text boxes, etc., from source without being aware that its copied on to your workbook. All the unnecessary data copied makes your file heavier and increases its start up time. Fig.1 shows a screenshot where a data set has 35 rows of data but only a few are visible. As you may notice that there is an image at the top left corner of the screenshot and some check boxes in column B which indicate that additional items were copied. Now, to make sure that any important data doesn't get deleted, the first step is to verify that you have additional data pasted on your sheet which you are not going to use, you can do this by viewing the Selection Pane, to turn on the selection pane (on the Home Tab go to the `Editing Chunk > Find Dropdown > Selection Pane` option making the pane visible) looking at the Selection Pane you'll get to know the list of objects on the current sheet. If this list is empty then you do not have any additional items.

The next step is to turn on the Design mode. If you do not have the Developer Tab visible in the ribbon, you can enable it with the following steps: `Office Button > Excel Options`. Check the "Show Developer tab in the Ribbon" checkbox on the default Popular tab. You are now ready to select objects using the Go to Special dialog. To select all the objects in the box `Ctrl+G` to open the `Go To dialog > Special button > Object`. Click OK.

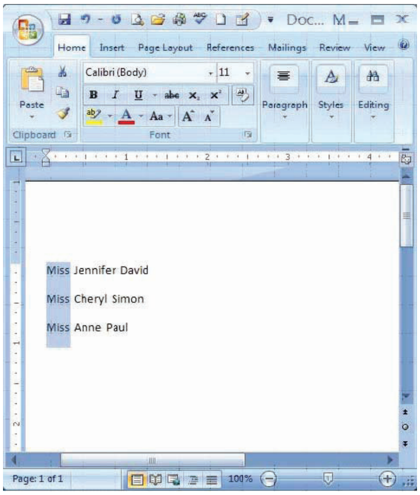
EXCEL KEYBOARD SHORTCUTS

Shortcut	Action
Ctrl+F	Find
Ctrl+H	Find&Replace
Ctrl+Arrow	Move to edge of region
Ctrl+*	Select current region
Ctrl+Home	Select
Ctrl+End	A1 Select last cell in used range
Ctrl+Shift+End	Select from active cell to last cell in used range
Ctrl+Shift+Home	Select from active cell to A1
Ctrl+Page Down	Move to the next sheet
Ctrl+Page Up	Move to the previous sheet
Ctrl+Tab	Move to next open workbook
Ctrl+N	Open new workbook
Shift+F11	Insert new worksheet
Shift+F3	Paste function window
=+FunctionName+Ctrl+A	Insert new function
Alt+F11	Open VBE
Ctrl+Shift+Enter	Array formula
Ctrl+F3, F3	Define name, Paste name
Ctrl+Spacebar	Select
Shift+Spacebar	columns, Select rows
Ctrl+1	Format
Ctrl+;	Current date
Ctrl+shift+:	Current time

The objects are all fitted now within their selection handles visible. Now all you have to do is to hit the Delete key to remove unwanted objects. Removing the objects will make your file smaller in size and it'll have better start up time.

View two workbooks at the same time

To save ourselves the trouble of viewing two Excel sheets back and forth, it's always efficient and easier if both the worksheets are aligned side by side, this makes the data-comparison easy. Excel has a built-in way with which you can view two workbooks at the same time. You can use this to avoid having to constantly check two Excel files or without the need to copy data from one workbook to the other. This is useful when you are comparing similar values or graphs between workbooks. Open both workbooks you want to compare side by side. `Window > Compare Side by Side` with [workbook2]. There are two options for viewing the data of the two workbooks you are now comparing Click 'Synchronous Scrolling' to scroll



Miss Jennifer David

Miss Cheryl Simon

Miss Anne Paul

Select text vertically in Word

LCD MONITOR VG236H
NVIDIA 3D VISION READY
120Hz Double-frame Rate
2ms Trace Free
Full HD 1080
HDMI
COLOR Shine Technology
Splendid
Height Adjustment
Swivel
Tilt
JUST CAUSE 2

ASUS VG236H 3D LCD MONITOR

IMMERSE YOURSELF IN ULTRA-SMOOTH AND VIVID 3D ACTION

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WORD KEYBOARD SHORTCUTS

Shortcut	Action
Alt+Shift+D	Date Field
Ctrl+Backspace	Delete Back Word
Ctrl+Delete	Delete Word
Alt+Shift+F7	Dictionary
Alt+Shift+F9	Do Field Click
Ctrl+W or Ctrl+F4	Doc Close
Ctrl+F10	Doc Maximize
Ctrl+F7	Doc Move
Ctrl+F5	Doc Restore
Ctrl+F8	Doc Size
Alt+Ctrl+S	Doc Split
Ctrl+Shift+D	Double Underline
Alt+Page Down	End of Column
Alt+Shift+Page Down	End of Column
Ctrl+Shift+End	End of Doc Extend
Ctrl+End	End of Document
End	End of Line
Shift+End	End of Line Extend
Alt+End	End of Row
Alt+Shift+End	End of Row
Alt+Ctrl+Page Down	End of Window
Alt+Ctrl+Shift+Page Down	End of Window Extend

through both documents at the same time. Uncheck independent scrolling. You can also reset the scrolling position to the starting position by clicking the button 'Reset Window Position'. When you are finished with your comparison, click Close Side by Side to return to the normal worksheet view.

Rearrange paragraphs

It's fairly easy to rearrange paragraphs in Word, this speeds up your work and all it takes is just three mouse clicks. All you have to is to select the paragraph you want to move by triple-clicking on it. Once you have selected the desired paragraph, click and hold your mouse button and drag it to the place where you would like the text to appear. Release the mouse button.

Select text vertically

Most of us know how to select text horizontally in Word, but many a times text aligned vertically needs to selected for reformatting. Here is a simple trick to help you out. Point the mouse pointer in front of the text you want to select, now press the Alt button while holding down the Alt button and select the text vertically.

Transpose the contents of your table

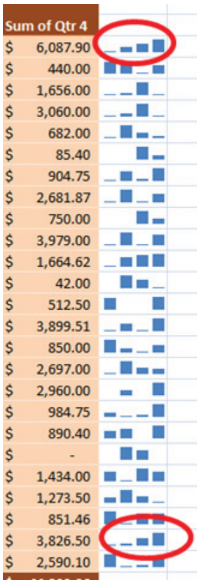
If you are one of those who use a lot of tables in your Word document, you might have felt the need to transpose the rows and columns which basically means that your rows become columns and the columns become rows. Interchanging the two can prove to be quite useful and time efficient. Here's what you can do

Create your table in MS Word. Select the entire table and copy it to the Clipboard. In MS Excel, use `Paste Special` to paste the table as text. Select the cells you would like to transpose. Click on `Edit > Copy.` Right-click on the upper left-hand corner of a range of empty cells that can accommodate the transposed result. Select Paste Special and check the transpose checkbox. Your values have been shifted and are now placed in their respective rows and columns.

Turn off email notifications

While working on an important assignment you suddenly receive an email message which eats up your time and does not let you progress further with your work. We all get tempted to look at our mail, distracting us from the work we were doing. To make sure your efficiency is not cut down you can choose to temporarily disable or turn off notifications in MS Outlook. This is what you can do Click on `Tools > Options > E-mail Options > Advanced E-mail Options`. In the middle of the dialog box, under `When new items appear in my Inbox`, clear the `Display a New Mail, Desktop Alert check box`. Click on OK.

Sparklines in Excel 2010



Sum of Qtr 4	
$	6,087.90
$	440.00
$	1,656.00
$	3,060.00
$	682.00
$	85.40
$	904.75
$	2,681.87
$	750.00
$	3,979.00
$	1,664.62
$	42.00
$	512.50
$	3,899.51
$	850.00
$	2,697.00
$	2,960.00
$	984.75
$	890.40
$	-
$	1,434.00
$	1,273.50
$	851.46
$	3,826.50
$	2,590.10

Sparklines adds graph bars to your worksheet

The Sparklines feature in Excel 2010 is a very handy option when you have multiple columns of data to look at, Sparklines creates a visual breakup of the columns in form of bar graphs making it easier for you to look and understand the figures. It tracks and highlights the important data trends in a rather complex work sheet. Sparklines are mini-charts that you could place inside the cells along with the figures so that you can view the data and the chart on the same table. To create one, begin with a regular spreadsheet document, any Excel sheet with tabular numeric data can be used. Select the cells where you want the Sparklines to appear. You can choose to put it at the side of the table for easier viewing. Click the Insert menu from the ribbon then choose Column under the Sparklines group. Select or enter the range of cells that will be the source of the data for the charts. The charts should appear at the side of the table. You would now be able to glance at the trends of growth or decline. The ones in circles have growing trend. With proper use of Sparklines, data analysis and breakup is quicker and more direct and to the point.

You now just need to look at the right most column to figure out the trends in this worksheet without spending hours minutely analyzing each figure.

Zoom only selected cells

Zooming only a part of your excel sheet certainly helps in acquiring only the required figures quickly. In order to select only a specific part on your excel sheet use the Selection option with Zoom. This option not only chooses just the right percentage to see the selection as large as possible, it also allows you to select the cells you would like to zoom in on. Select the range you would like to enlarge. Using the Zoom drop-down arrow, select `View > Zoom > Fit selection`. When you are finished, select 100% (or the appropriate percentage) from the Zoom control in the Toolbar or select `Edit > Undo Zoom` or click on Ctrl + Z.

MEDIA PLAYER SHORTCUTS

Moving a mouse to change a song can be irritating. Here are a list of essential keyboard shortcuts for all the popular media players out there, to help you speed up your entertainment.

REAL PLAYER

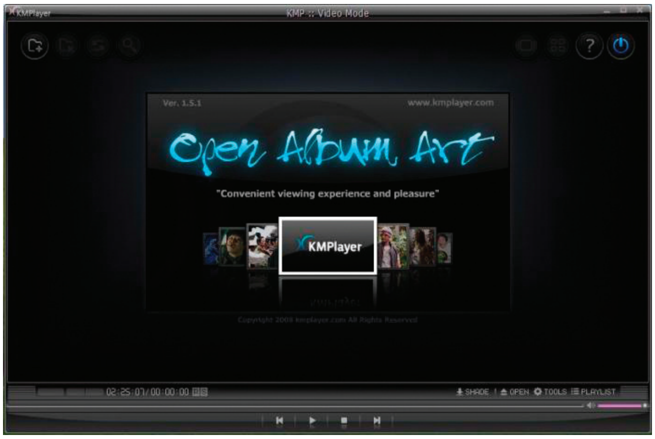
Shortcut	Action
[Ctrl] + [Shift] + [F4]	Fast Forward
[Ctrl] + [Shift] + [F3]	Rewind
Hold down [Ctrl] + [	Seek Back
Hold down [Alt] + [	10X Seek Back
Hold down [Ctrl] +]	Seek Forward
Hold down [Alt] +]	10X Seek Forward
[Ctrl] + Up arrow	Volume Up
[Ctrl] + Down arrow	Volume Down
[Ctrl] + [P]	Play/Pause
[Ctrl] + Left arrow	Previous Clip
[Ctrl] + Right arrow	Next Clip
[Ctrl] + [S]	Stop
[F11]	Mute
[Ctrl] + [R]	Record
[Ctrl] + [Shift] + [S]	Set record start point
[Ctrl] + [Shift] + [E]	Set record end point

MEDIA PLAYER CLASSIC

Shortcut	Action
NumPad [1] to [9]	Resize, aspect ratio (5 = default)
[Space]	Pause/Continue
[Ctrl] + Arrow left/right	Jump forward/backward 5 sec
[Alt] + Arrow left/right	Jump forward/backward 20 sec
[Ctrl] + Arrow up/dwn	Speed adjustment (x2/x4)
NumPad [+] or [-]	Audio delay +/-
[Alt] + [Enter]	Full screen
Mouse Wheel / Arrow up/down	Audio volume

KM PLAYER

Shortcut	Action
[Ctrl] + [O] (Oh)	Open File(s)
[Ctrl] + [U]	Open URL
[Ctrl] + [F]	Open Folder
[Ctrl] + [J]	Open File(s) for TV-Out
[Ctrl] + [I]	Open URL Extracted from IE
[Ctrl] + [R]	Open Recent File
[Ctrl] + [P]	Reopen after changing settings
[Ctrl] + [M]	Open WDM (TV) Device...
[Ctrl] + [W]	Open WDM (TV) as Default Device...
[Ctrl] + [D]	Open DVD Standard Device
[Ctrl] + [V]	Open DVD File
[Ctrl] + [K]	Open Video CD
[Tab]	Playback info (on OSC)
[Shift] + [Tab]	Playback Message
[Ctrl] + [Tab]	Advanced Playback Info
[Ctrl] + [']	Advanced Filter Info
[Page Up]	Previous
[Space]	Play
[Ctrl] + [Z]	Stop
[Page Down]	Next
[Alt] + [G]	Control Box
[Alt] + [E]	Playlist
[M]	Mute
[Alt] + [F4]	Exit
[1]	Half Size (50%)
[2]	Normal Size (100%)
[3]	One and a Half Size (150%)
[4]	Double Size (200%)
[5]	Full Screen (Normal)
[6]	Full Screen (Stretch)
[7]	Full Screen (Overscan)
[8]	Maximize Window
[9]	Desktop Mode



VLC MEDIA PLAYER - MOUSE GESTURES

Task	Mouse gesture
Skip backward by 10 seconds	Left
Fast forward by 10 seconds	Right
Switch to previous playlist entry	Left-down
Switch to next playlist entry	Right-down
Play or Pause	Left-right or Right-left
Volume up	Up
Volume down	Down
Mute	Up-down or Down-up
Switch to fullscreen mode	Up-left
Quit VLC	Down-left

VLC MEDIA PLAYER - KEYBOARD SHORTCUTS

Shortcut	Task
[Space]	Play/Pause
[S]	Stop
[+]	Play faster
[-]	Play Slower
[T]	Position
[N]	Next Item
[P]	Previous Item
[F]	Fullscreen
[M]	Mute
[Shift] + Right Arrow	Forward 3 seconds
[Shift] + Left Arrow	Backward 3 seconds
[Alt] + Right Arrow	Forward 10 seconds
[Alt] + Left Arrow	Backward 10 seconds
[Ctrl] + [Q]	Quit
[Ctrl] + Up Arrow	Volume up
[Ctrl] + Down Arrow	Volume down
[Ctrl] + Right Arrow	Forward 1 minute
[Ctrl] + Left Arrow	Backward 1 minute
[Ctrl] + [R]	Record
[Alt] + [Ctrl] + [S]	Video Snapshot
[Ctrl] + [M]	"DVD Menu"
[Ctrl] + [P]	Select Previous DVD Title
[Ctrl] + [N]	Select Next DVD Title
[Ctrl] + [B]	Bookmarks
[Ctrl] + [P]	Playlist
[Ctrl] + [I]	Stream, Media Info
[Ctrl] + [S]	Preferences
[Ctrl] + [G]	Extended GUI

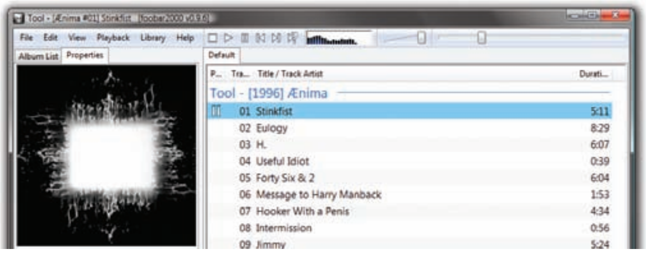
VLC media player
Archivo: E Ver Opciones Audio Video Navegación Ayuda: H
0:00:37 / 0:01:17
x1.00
C:\Documents and Settings\julian.gomez\Mis documentos\- Material -\Videos DivX\IceAge2_Trailer.divx

WINAMP

Shortcut Keys	Task
[Ctrl] + [O] (Oh)	Open Playlist
[Ctrl] + [S]	Save Playlist
[Alt] + [F3]	View File Info
[Ctrl] + [A]	Select all file
[L]	Open file location
[Ctrl] + [L]	Open URL
[Shift] + [L]	Open folder
[Ctrl] + [Alt] + [I]	Edit Bookmarks
[Ctrl] + [Alt] + [B]	Add current as bookmark
[X]	Play
[C]	Pause
[V]	Stop
[Z]	Previous
[B]	Next
Left Arrow	Back 5 second
Right Arrow	Forward 5 second
[R]	Repeat
[S]	Suffle
Up Arrow	Volume up
Down Arrow	Volume down
[Ctrl] + [V]	Stop after current play
[Alt] + [S]	Skin browser
[Ctrl] + [Shift] + [K]	Start/Stop visualization
[Alt] + [K]	Visualization setting
[Ctrl] + [K]	Select plug-ins
[Alt] + [G]	Equalizer
[Ctrl] + [T]	Time elapse/remain
[Ctrl] + [Alt] + [B]	Always on top
[Alt] + [E]	Playlist Editor
[Alt] + [V]	Video
[Alt] + [L]	Media Library
[Alt] + [X]	Web Browser
[Alt] + [C]	Skin Settings
[F1]	Open Help
[Ctrl] + [F1]	About Box
[Ctrl] + [A]	Always on top
[Ctrl] + [W]	Minimal view
[Ctrl] + [D]	Doublesize mode
[Alt] + [W]	Toggle main window
[Alt] + [F]	Open main menu
[Ctrl] + [J]	Jump to time in current track
[J]	Jump to file
[Ctrl] + [Alt] + [N]	Spawn new Winamp
[Alt] + [M]	Minimize Winamp
[Ctrl] + [H]	Played history
[Shift] + [V]	Stop with fadeout
[Alt] + [Delete]	Remove file from playlist
[Ctrl] + [F]	Explore item folder
[Ctrl] + [P]	Preferences
Global Hotkeys	
[Ctrl] + [X]	Autofill portable device
[Ctrl] + [E]	Eject portable
[Ctrl] + [Shift] + [S]	Sync portable
[Ctrl] + [Q]	Quit
[Ctrl] + [I]	About Winamp
[Ctrl] + [Shift] + [P]	Copy file path
[Ctrl] + [Shift] + [T]	Copy title

FOOBAR

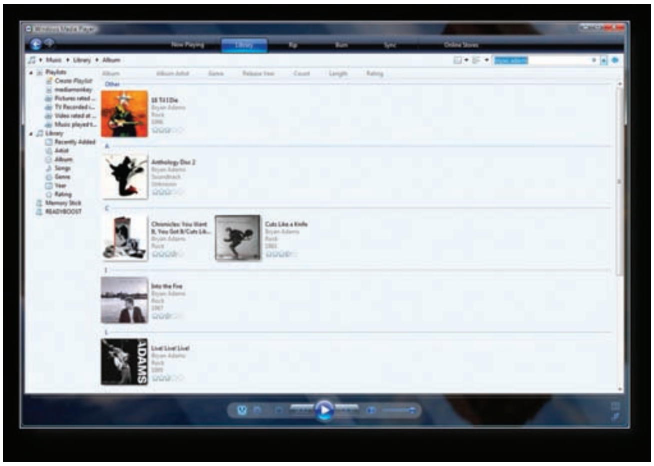
Shortcut	Task
NumPad [4]	Seek back by 10 seconds
[Ctrl] + NumPad [4]	Seek back by 1 minute
NumPad [6]	Seek ahead by 10 seconds
[Ctrl] + NumPad [6]	Seek ahead by 1 minute
NumPad [.] (or [Del])	Remove
[Z]	Stop
[X]	Pause
[C]	Play
[V]	Next
[Shift] + [V]	Previous
[Ctrl] + [P]	Preferences
[Ctrl] + [C]	Copy Name (s)
[Ctrl] + [A]	Select All
[Ctrl] + [Z]	Undo
[Shift] + [Ctrl] + [Z]	Redo
[F3]	Search
[Ctrl] + [F]	Search
[Alt] + [A]	Always on Top
NumPad [+]	Volume up
NumPad [-]	Volume down
[=]	Volume up
[Shift] + [=]	Volume up
[-]	Volume down
[Ctrl] + [Tab]	Next Playlist
[Shift] + [Ctrl] + [Tab]	Previous Playlist
[Ctrl] + [N]	New Playlist
[Ctrl] + [W]	Remove Playlist
[Ctrl] + [F4]	Remove Playlist
[Ctrl] + [O] (Oh)	Open ...
[Ctrl] + [S]	Save Playlist ...
[Ctrl] + [U]	Add Location ...



P...	Tra...	Title / Track Artist	Durati...
		Tool - [1996] Ænima	
	01	Stinkfist	5:11
	02	Eulogy	8:29
	03	H.	6:07
	04	Useful Idiot	0:39
	05	Forty Six & 2	6:04
	06	Message to Harry Manback	1:53
	07	Hooker With a Penis	4:34
	08	Intermission	0:56
	09	Jimmy	5:24

WINDOWS MEDIA PLAYER

Shortcut	Task
[Alt] + [1]	Zoom to 50%
[Alt] + [2]	Zoom at 100%
[Alt] + [3]	Zoom to 200%
[Alt] + [Enter]	Toggle display for full-screen video
[Alt] + Left Arrow	Retrace your steps back through your most recent views in the Player
[Alt] + Right Arrow	Retrace your steps forward through your most recent views in the Player
[Ctrl] + [1]	Switch to full-screen mode
[Ctrl] + [2]	Switch to skin mode
[Ctrl] + [7]	Switch to the first view in a media category after Recently Added (such as Artist in Music)
[Ctrl] + [8]	Switch to the second view in a media category after Recently Added (such as Album in Music)
[Ctrl] + [9]	Switch to the third view in a media category after Recently Added (such as Songs in Music)
[Ctrl] + [B]	Previous (item or chapter)
[Ctrl] + [E]	Put the focus on the search box in the library
[Ctrl] + [F]	Next (item or chapter)
[Ctrl] + [H]	Turn shuffle on or off
[Ctrl] + [J]	Eject CD or DVD (note that this does not work on computers equipped with two or more CD or DVD disc drives)
[Ctrl] + [M]	In full mode, show or hide the Classic Menus (menu bar)
[Ctrl] + [N]	Create a new playlist
[Ctrl] + [O]	Open a file
[Ctrl] + [P]	Play or pause playing
[Ctrl] + [Q]	Add selected item to sync list
[Ctrl] + [S]	Stop playing
[Ctrl] + [T]	In audio playback, turn repeat on or off
[Ctrl] + [U]	Specify a URL or path to a file
[Ctrl] + [W]	Close or stop playing a file
[Ctrl] + [Shift] + [B]	Rewind video
[Ctrl] + [Shift] + [C]	Turn captions and subtitles on or off
[Ctrl] + [Shift] + [F]	Fast forward through video or music
[Ctrl] + [Shift] + [G]	Use a fast play speed
[Ctrl] + [Shift] + [N]	Play at normal speed
[Ctrl] + [Shift] + [S]	Use a slow play speed
[Esc]	Return to full mode from full screen
[F1]	Display Windows Media Player Help
[F2]	Edit media information on a selected item in the library
[F3]	Add media files to the library
[F4]	Switches the view of items in the Details pane using the options available with the View Options button
[F5]	Refresh information in the panes
[F6]	Increase the size of album art
[Shift] + [F6]	Decrease the size of album art
[F7]	Mute the volume
[F8]	Decrease the volume
[F9]	Increase the volume
[F10]	Show the Classic Menus (menu bar)
[F11]	Switch to full-screen mode



Digit Collector's Edition Special

Participate online @ thinkdigit.com/appup

Digit App Developer Contest

Show your understanding of the Intel AppUpSM developer program and win exciting prizes like Netbooks, MP3 Players, 8GB Pen Drives, Board Games, T-Shirts, and a lot more. Answer 3 simple questions and fill in your personal details for the prizes.

Which OS runtime support is currently available on Intel AppUpSM developer program?

☐ C/ C++ and .Net
☐ Moblin / MeeGo
☐ Adobe Air
☐ All of the above

Which of the below statements is not true about the Intel AppUpSM developer program?

☐ Intel AppUpSM developer program does not accept free apps
☐ You get to decide the prize of your application
☐ Intel has set up a Million Dollar Fund to incentivize developers
☐ You earn 70% as revenue for every sale of your app

What prize can you win by submitting apps on Intel AppUpSM developer challenge?

☐ A custom-ordered BMW - plus a trip to Germany to pick it up
☐ A $60,000 dream travel experience of their choice
☐ $60,000 cash
☐ Any of the above

To be eligible to win prizes, create a Intel Login Id by visiting goo.gl/XLYka and fill the personal details here:

Intel Login Id ______________________________
Intel Display Name __________________________
Email ______________________________________
Mobile No. __________________________________

Get Secure Challenge

Answer 4 simple questions and win one-year licences of Norton Antivirus 2011

Why choose Norton anti-virus 2011?

☐ Protects against viruses, spyware, and other threats
☐ Fast, powerful online protection to keep you a step ahead of cyber attacks
☐ Automatic updates, easy-to-use features and free customer support
☐ All of above

Norton Internet Security 2011 protects:

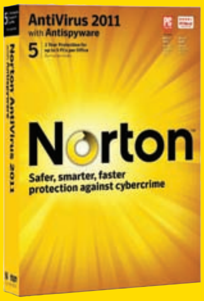
☐ Your computers from viruses, spyware and other threats
☐ Your identity when you surf, bank, shop online
☐ Your kids when they go online with parental control management
☐ Fix severely infected PCs with rescue tools
☐ All of the above

Norton 360 is known for its All-in-one protection as it includes:

☐ AntiVirus
☐ Internet Security
☐ Optimise PC performance with disk tuneup
☐ 2 GB Online Backup (with an option to purchase more)
☐ All of the above

Norton Internet Security is known as industry's fastest, lightest security software because

☐ As per 3rd party lab test done by Passmark Software compared to competition, it gained the highest overall score
☐ Takes the least time to install
☐ Has the fastest scan time
☐ Uses the least memory
☐ All of the above



Fill the personal details to be eligible for prizes

Email ______________________________
Mobile No. __________________________

Send your entries to:

"DIGIT COLLECTOR'S EDITION CONTEST"
Kakson House, 2nd Floor, A & B Wing, 80 Sion-Trombay Road,
Opposite RK Studio, Chembur, Mumbai 400 071.

PLAY 3 Exciting Contests

SMC Challenge

Participate online @
thinkdigit.com/
SMC/Challenge

Win exciting prizes!

COMPACT FLASH
2GB
Kingston
CF/2GB

Answer the questions about Kingston Memory products and win exciting prizes including 64 GB flash drive, 32GB, 16GB and 4GB pen drives, 9-in-1 card readers and more...

What are key advantages of using a Kingston CompactFlash Ultimate card over a traditional Compact Flash card?

- ☐ Get ultra-fast rates of up to 90MB/sec. read and write
- ☐ Recover lost or deleted files and restore corrupt files on Windows/Mac systems
- ☐ Get storage capacity of upto 32GB
- ☐ All of above

Which of these brands can use Kingston System Specific Memory on their computer system?

- ☐ Apple
- ☐ HP
- ☐ Lenovo
- ☐ All of above

Kingston
64GB
SSDNOW V+

What makes SSDNow faster than standard hard disk drives?

- ☐ Zero rotational latency
- ☐ High clock frequency
- ☐ Low overhead area
- ☐ None of above

For which of the following product-lines can the Kingston ValueRAM memory be used?

- ☐ Servers
- ☐ Desktops
- ☐ Laptops
- ☐ All of above

What is the highest speed you can achieve with Kingston HyperX Memory?

- ☐ 533 MHz
- ☐ 2333 MHz
- ☐ 2000 MHz
- ☐ 1066 MHz

2GB
Kingston
SD

What is the highest capacity flash drive from Kingston?

- ☐ DT 200 with 128 GB
- ☐ DT 200 with 128 GB
- ☐ DT 310 with 256 GB
- ☐ DT 310 with 128 GB

Why should a photographer prefer using a Kingston SDHC Ultimate Class 10 over any other SD card?

- ☐ Get speeds of up to 22MB/sec. read and 18MB/sec. write, ideal for anyone who uses their digital equipment for serious photography
- ☐ 32GB storage to capture up to 252 minutes of HD video
- ☐ Get lifetime warranty, 24/7 tech support and legendary Kingston® reliability
- ☐ All of above

What are the highlights of Kingston Media Reader?

- ☐ Support 19 popular types of Flash memory cards
- ☐ Supports up to 480 Mbps data transfer speed
- ☐ Includes an additional three-foot USB cable for stationary use
- ☐ All of above

What are the advantages of using a Kingston microSD card with your mobile?

- ☐ Share your content collections - your mobile content is no longer tied to your phone
- ☐ Easily transfer phone lists, settings, music, video games or ring tones when changing service or upgrading your handset
- ☐ Gives you longer battery life on your phone as its ultra-small size consumes very little power from your handset
- ☐ All of the above

Fill the personal details to be eligible for prizes

Email ______________________________ Mobile No. ______________________________

Terms and Conditions

Contests open to Indian nationals only • Prizes are non-transferable, cannot be exchanged or redeemed for cash • Models and images of prizes shown are for illustration purposes only • Only entries received before December 31, 2010 would be eligible • 9.9 Media would not be responsible for any entries lost or damaged or not reaching before the due date • Photocopies of this form would also be entertained • Decision of 9.9 Media is final & binding on all parties, in case of any disputes • Disputes, if any, is subject to Mumbai jurisdiction only.

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EARN
LEARN

READ

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- Select the Digit issue or Fast Track you want to purchase.
- On the payment page, enter the unique code shown on the bottom right

digit
ENTERTAINMENT @ HOME

Terms and Conditions:

- Every unique code can be redeemed twice
- Vouchers valid till **June 30, 2011**

EARN

Digit Advertising Voucher worth ₹500

Use the voucher to advertise your skills and get business, or save money by placing a wanted ad – the sky's the limit. You can also collaborate with friends and use multiple vouchers to place bigger ads and reach out to India's largest technology community

REDEMPTION OPTIONS

- Text-ad of maximum 20 words in Fast Track Classified Section – ₹500
- Display-ad of 6 cm width X 2cm height in Fast Track Classified Section – ₹5,000
- Display-ad of 6 cm width X 2cm height in Digit Classified Section – ₹7,500
- Text-ad of 25 words on thinkdigit.com/digital_market.php ₹250, for a period of 30 days

HOW TO REDEEM

- Fill in your name and contact details in the advertising voucher on the back page of the **Fast Track**
- Cut out the voucher and send it with the ad-material to the address mentioned on the voucher
- For display ads, send the ad-material on a CD/DVD, for text ads, just print the ad on paper and send it in

Terms and Conditions: • Vouchers valid till **December 31,2011** • Any number of vouchers can be clubbed together for higher value ads • Placement of ad would be at the discretion of Digit Editorial Team • Timing of ad would depend on availability of the space in the magazine or the web site (first come, first serve)

LEARN

Use the unique code printed below to win one of the following prizes:

- 3-months Digit Subscription worth ₹500
- Digit Store voucher worth ₹500 redemable against Digit copies
- Voucher worth ₹500 redeemable on any Training.com course*

* Valid for any course worth ₹790 or more
* Valid for redemption requests sent by **December 31, 2010** only

HOW TO REDEEM

- SMS <DIGIT> followed by your <7-digit unique code> to 92200 92200
- Visit **thinkdigit.com/prize** to fill your 7-digit unique code

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Use the unique code above to get your guaranteed gifts

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worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(MUST READS)

TECH BLUNDERS

We came out with our own list of tech flops back in November last year. Check out Mashable's list of 9 Notable Tech Flops complete with video footage for each device:
http://on.mash.to/crYRnT

ARE YOU TWINTERESTED?

A company called Gravity recently launched a service that attempts to chart out your interests and create an interest graph that will eventually help you personalise the web for yourself.
http://bit.ly/9xICJl

IS IT TIME FOR A SWO?

With most real time and relevant data being served up on sites like Twitter, Facebook and other social media, is it time for a new Google-like 'Social Web Optimisation'?
http://goo.gl/5FPon

WHATEVER HAPPENED TO CHROME OS?

From early reports that announced the death of other operating systems, the project seems to have gone into hiding. Read this report on ZDnet to find out what's happening..
http://zd.net/bKrcW7

(TechCrunchCorner) THE FUTURE OF MEDIA

Flipboard
FLIP
toy car
BofA's Secret of Success: Real Estate

News Corp is taking the iPad very seriously as a new way to distribute the news and have gone on a hiring spree of epic proportions in an effort to create a new iPad only digital publication. They taking on journalists as well as engineers on loan from Apple. In this feature TechCrunch looks at what a newspaper of the future should have
http://tcrn.ch/bepKvh

DISTRACTION
JUST ANOTHER MEANINGLESS MESSAGE TO KEEP
YOU FROM PAYING ATTENTION TO ALL OF THE ISSUES THAT REALLY MATTER
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DISTRACTION
JUST ANOTHER MEANINGLESS MESSAGE TO KEEP
YOU FROM PAYING ATTENTION TO ALL OF THE ISSUES THAT REALLY MATTER

A Distracting Article About Digital Distraction

How do you read online nowadays? A few hundred words and you post a tweet, a few more and you share it on Facebook, a few thousand further and some notification or the other pops up!
http://tcrn.ch/cATm56

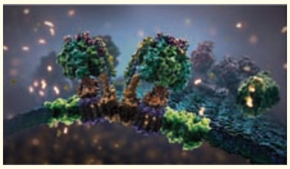
Point and shoot cameras commit suicide

A 10 megapixel, point and shoot is superior when compared to a phone camera. Smartphones are always connected. Point & shoots never are. Read on for a stats enhanced account of the death of this enhanced species.
http://tcrn.ch/9JHvWZ

Facebook's Modern Messaging System

"This is not an email killer. This is a messaging experience that includes email as one part of it," Zuckerberg said at the launch of Facebook email. A killer this is not. Read on to find out more
http://tcrn.ch/bAx4Js

WHERE HOLLYWOOD MEETS BIOLOGY



A new breed of multimedia scientists are emerging.
http://goo.gl/mwMwg

LEAVE ME THE $#%K ALONE!

Just kidding. What you should know about though is the brand new social browser called Rockmelt that's creating waves in Silicon Valley (California). It's invitation based only right now, but looks very promising in the social space.
http://goo.gl/uWN46

WORKSPACES OF THE RICH AND FAMOUS

From the creator of Dilbert to Steve Jobs, take a sneak peek into the private workspaces of these famous people. Who knows, maybe you could pick up a tip or two and have your own 'famous workspace' featured in this space in the future.
http://goo.gl/mStQ3

EXPORT YOUR FACEBOOK FRIENDS

Facebook not as appealing anymore? Breaches in privacy not your cup of tea? Want to break free without losing all your friends?
http://goo.gl/fw8Ug

How Many Cores Is Too Many?

- By Matthew Murray

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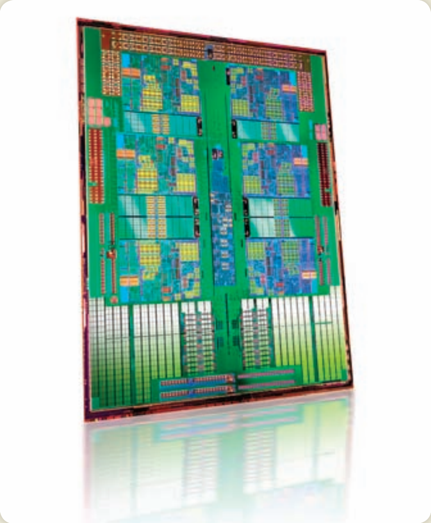
Ever since the first dual- and quad-core CPUs were released several years ago, the procedure for buying processors has involved counting the number of cores in the CPU, counting the number of dollars in your wallet, and then doing your best to match up the values. After all, chips that haven't been overclocked haven't gotten much faster than 3.3 GHz or 3.4 GHz, so despite a bit of variance here and there, you've generally been able to feel secure that the more cores your CPU contained, the faster it would perform overall.

This has been acceptable thinking up until now—after all, it's only this year, with the release of Intel's Core i7-980X and Core i7-970 and AMD's Phenom II X6 series (including the 1090T, the 1055T, and the1075T), that the number of cores on consumer CPUs has outgrown what you can count using just the fingers on one hand. But technology never stops advancing, and some recent research is showing that current advice to buy the most cores you can afford may not remain practical for much longer.

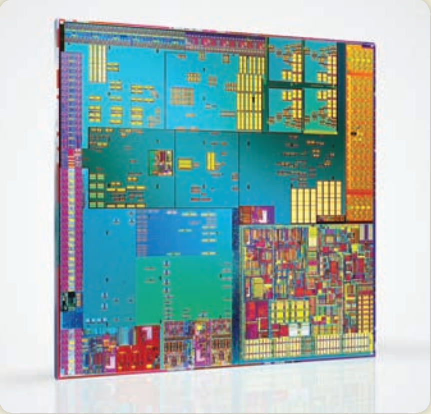


A group of MIT researchers are presenting a paper today at the USENIX Symposium on Operating Systems Design and Implementation in Toronto, titled "An Analysis of Linux Scalability to Many Cores," that details research about how very large numbers of cores affect processing performance. The paper may deal with Linux specifically, but it's a helpful reminder to everyone about the challenges facing hardware and software design in today's computing world—and how important it is that these problems get solved soon.

The problem, according to the researchers, starts appearing with systems bearing numbers of cores in the dozens. They built a system in which eight six-core chips effectively mimicked one 48-core chip, then observed what happened in a lengthy series of tests. The large number of cores may have made for a blazing-fast system, but it was still slower than it should have been. The reason? This story from MITnews explains:

In a multicore system, multiple cores often perform calculations that involve the same chunk of data. As long as the data is still required by some core, it shouldn't be deleted from memory. So when a core begins to work on the data, it ratchets up a counter stored at a central location, and when it finishes its task, it ratchets the counter down. The counter thus keeps a running tally of the total number of cores using the data. When the tally gets to zero, the operating system knows that it can erase the data, freeing up memory for other procedures.

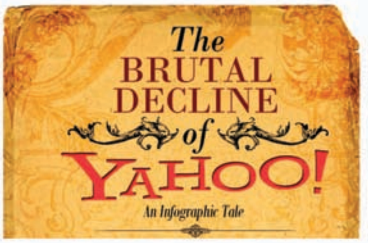
As the number of cores increases, however, tasks that depend on the same data get split up into smaller and smaller chunks. The MIT researchers found that the separate cores were spending so much time ratcheting the counter up and down that they weren't getting nearly enough work done.



According to the paper, the problems were often to due to issues with cache:

Many scaling problems manifest themselves as delays caused by cache misses when a core uses data that other cores have written. This is the usual symptom both for lock contention and for contention on lock-free mutable data. The details depend on the hardware cache coherence protocol, but the following is typical. Each core has a data cache for its own use. When a core writes data that other cores have cached, the cache coherence protocol forces the write to wait while the protocol finds the cached copies

YAHOO! - THE RISE AND FALL OF AN INTERNET GIANT



http://goo.gl/xd4ge

MT.EVEREST GETS 3G MOBILE NETWORK

The highest point on planet Earth has now gone 3G. The mobile operator Ncell in Nepal has made this move to cater to the 30,000+ tourists that the peak attracts every year. The race is on: wonder who is going to become the mayor of the mountain by checking in to Foursquare first.

http://goo.gl/Lv7vZ

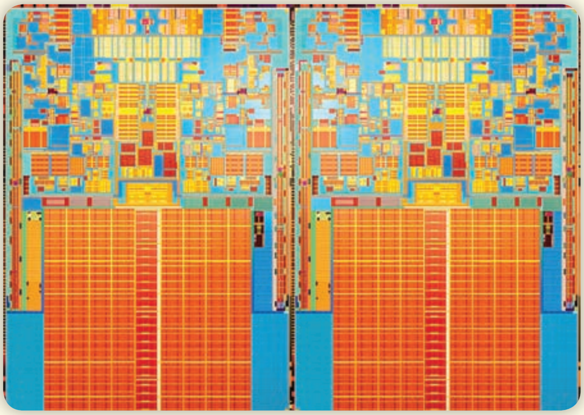
GROWING UP DIGITAL, WIRED FOR DISTRACTION

A new age look at how the next generation is growing up in a world that is now smaller than ever and where learning online is probably more productive than sitting in a classroom. With technology thrown into the mix of peer pressure and homework, how are the young-lings of the Google-age coping?

http://goo.gl/ibZ9v

and invalidates them. When a core reads data that another core has just written, the cache coherence protocol doesn't return the data until it finds the cache that holds the modified data, annotates that cache to indicate there is a copy of the data, and fetches the data to the reading core. These operations take about the same time as loading data from off-chip RAM (hundreds of cycles), so sharing mutable data can have a disproportionate effect on performance.

The conclusion, according to the MIT-news story, is that "[s]lightly rewriting the Linux code so that each core kept a local count, which was only occasionally synchronized with those of the other cores, greatly improved the system's overall performance." But will what works for modern-day Linux, and other operating systems, also work when the number of cores goes up even more? Past 48, according to one of the researchers, "new architectures and operating systems may become necessary."



Software and Hardware Solutions

It would seem that Intel and AMD are already working on separate ways to meet this challenge. As this ConceivablyTech.com story says:

Intel has said in the past that, beyond 16 cores, it appears that much of the performance gain efficiency from the pure addition of cores may be gone and improving software that takes advantages of these cores may become much more important. That appears to be still true and we are actually seeing both processor makers buying themselves some time with the strategy of integrating GPUs into the processor package, which will provide a path to cost savings, but also a way to increase overall application speed as far as floating-point performance is concerned.

This has particularly applicability to Intel's recently announced next-generation processor microarchitecture, Sandy Bridge, which includes design features specifically aimed at helping it scale to machines with large numbers of cores. And AMD's own upcoming Fusion APUs, which seem intended to fully consummate the marriage that began when AMD acquired video powerhouse ATI a few years back, represent another step in the process.. But will the software be ready? That's another question altogether. Years after two- and four-core CPUs became commonplace in the market, even popular software apps were struggling to take full advantage of their capabilities. We've worked with some popular apps in our lab tests that profess multicore support, but don't show significant performance improvements when run on a six-core chip as compared to a quad-core CPU with a similar clock speed. Things have gotten better in this area just over the last year and a half or so, but there's still a long way to go. So we're a little skeptical that software development will keep pace with the available hardware. (That it rarely has since the inception of the personal computing industry some 30-odd years ago makes it seem likely the trend will continue.)

Of course, there are lots of questions about this whole situation it's still too early to answer. Chief among them: Is 48 cores simply too many for any application, because the amount of time reassembling all the individual pieces of work will cancel out any benefit you may have gotten from doing them all at the same time? We have to hit that ceiling sometime—and if we're near it, how much of a difference can the software make, whether it's Linux, Windows, or anything else? In that case, we'll need even more inventive solutions to keep increasing performance. Let's hope that hardware and software companies alike are keeping that in mind as well, even as they're working to maximize the performance they can derive from systems with 48—or even six—cores.

SHORTS

RISK REDUCTION STRATEGIES - FOR FACEBOOK?

Did you know you can do something known as a "super log out" on Facebook? It's not a feature, but rather a hack. Harvard fellow and PhD Danah Boyd talks about 'Risk Reduction Strategies' on Facebook.

http://goo.gl/bkTpT

INTRODUCING THE DIGITAL UNDERCLASS

A look into the world that will be should the publishers stop printing books. Not only will it spell the death of the public library, but would also mark the coming of a new age in the digital realm where the less privileged will be the ones who choose not to adopt digital media.

http://goo.gl/2ee0O

H@CK3R IN WONDERLAND

The Microsoft Kinect is opening Pandora's box for hackers worldwide. Check out some of the cool stuff they have done already!

http://goo.gl/K1Nxp

FIGHT FOR YOUR E-RIGHTS

This is a call to arms to all users of the Internet! The world wide web, much like a democracy represents freedom to it's users who cannot be strong armed into submission. Not if the big corporations have their way though. So let's all join hands and fight for our new birth right!

http://goo.gl/axl1j

Fusion vs. Sandy Bridge: The Pregame Report

- By Matthew Murray

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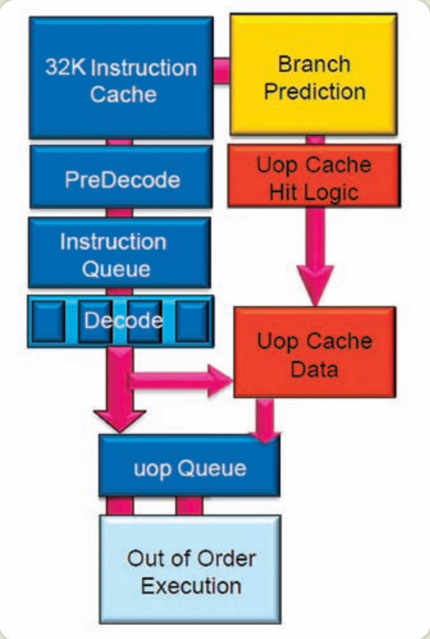
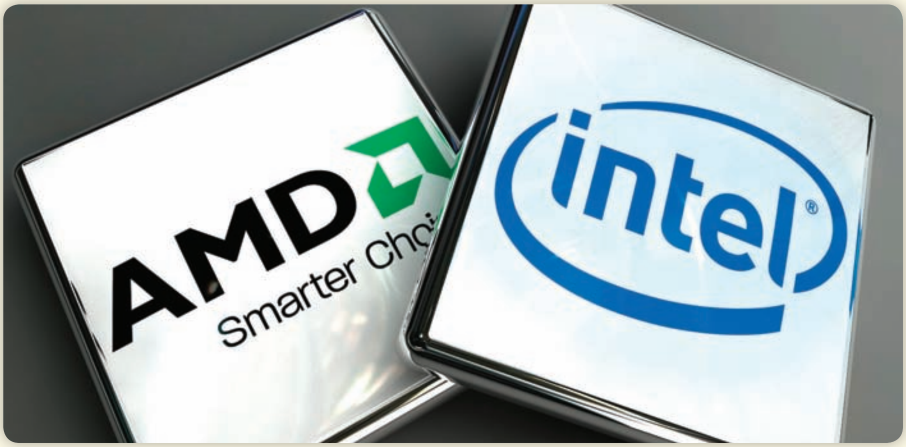
Everything you know about PCs is going to change in 2011. That's because AMD and Intel, the two largest and most influential processor makers, are set to shatter the final remaining barriers between the CPU and the GPU with their upcoming products. AMD's Fusion and Intel's Sandy Bridge will unite processing and graphics on the same silicon die for the first time ever. Both companies are claiming that this will yield outstanding performance and power benefits, as well as improve the quality of integrated graphics.

So the question becomes: What are the differences between Fusion and Sandy Bridge? Neither has yet been released to the public, so it's still difficult to cut through all the hype, rumors, and halfway-acknowledged specs and arrive at the most salient facts. Luckily, both AMD and Intel have released enough information about their upcoming platforms to give us at least a speculative idea of what the future holds. We still have a lot to learn about both Fusion and Sandy Bridge, but whatever the cold realities, they could represent two of the most important technology marriages we've seen in years.

How They're the Same

General audience. This could change in the future—in fact, we expect it to—but to start with, Fusion and Sandy Bridge have very modest aspirations. Both are primarily targeting budget and mainstreamdesktop and laptop users, rather than the gamers and enthusiasts that are usually the earliest beneficiaries of major technology developments. The reason is simple: The union of processing and graphics is still so young that the integrated GPU won't be able to deliver the blistering performance power users demand. (AMD, for example, is claiming that its inaugural Fusion accelerated processing units, or APUs, will deliver video on par with its ATI Radeon HD 5450 card—its lowest-level discrete offering from the previous generation.) Capabilities may someday increase to the point that bleeding-edgers will be satisfied, but for now they'll want to hang on to their standalone cards.





Improved technologies and waste reduction. Though AMD's and Intel's specific approaches differ, both companies are

BLAST FROM THE PAST

Will Apple do a repeat performance of 1984 where the Macintosh shot to stardom and then failed miserably after or will the iPhone continue to hold it's own and tease consumers for generations to come? An interesting read for those in need of a refresher history lesson and how the time that was compares to the twenty first century we live in today.

http://goo.gl/ll9zq

48 CORES? TELL ME SOMETHING I DON'T KNOW!

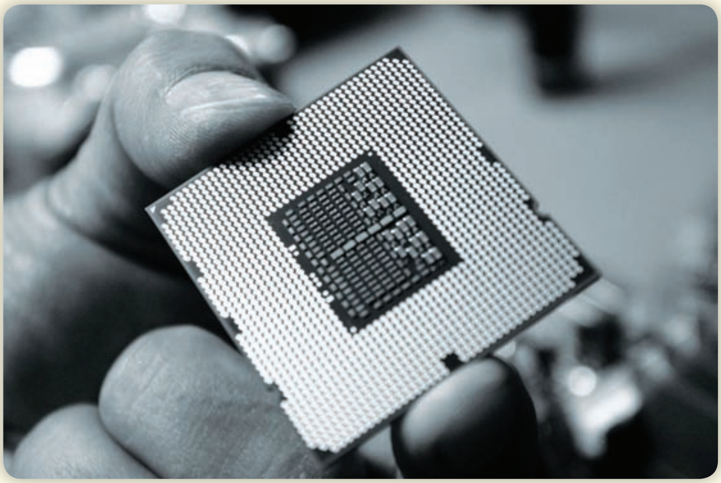
AMD talked about 48 cores? Big whoop! Intel touts the ability to scale their processors up to 1,000 cores. No kidding! Now we can't possibly fathom why there is a even a need for such a computing beast to materialise but who are we to stop technology from taking an evolutionary leap?

http://goo.gl/04zvP

WHY SAMSUNG'S BADA COULD WIN BIG

According to some numbers Samsung's bada smartphone operating system is the most successful launch of a new mobile OS since the original iPhone. It has now claimed 1.3 million users, or 2 percent of the worldwide smartphone market already. Read on to find out more...

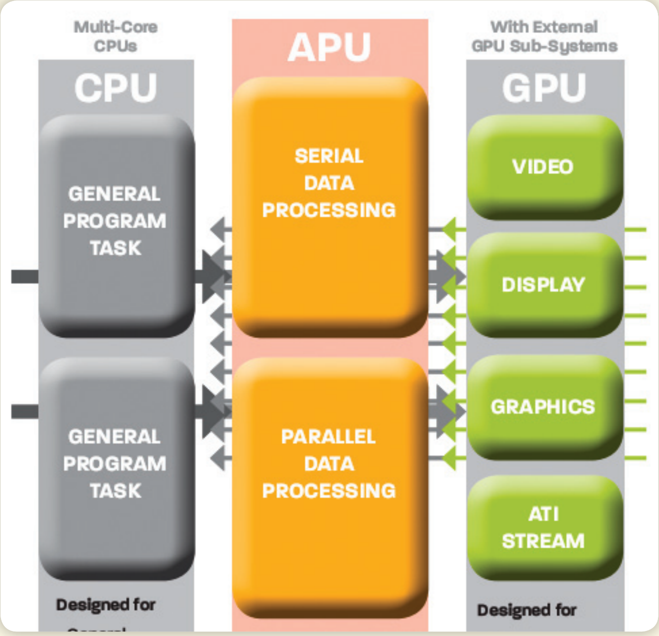
http://bit.ly/9PYDn4



rethinking and streamlining the processing process. Both improve branch prediction and out-of-order instruction execution, introduce new sets of instructions, and minimize the amount of over-processing required to complete certain tasks. Optimizations like these are common in almost every major refresh, but AMD and Intel seem to be aligning particularly closely this time.

Media processing. The proliferation of digital cameras and the explosion of HD content in the last few years have thrust digital photography and videography out of the niche markets and directly into the mainstream. This means that AMD and Intel had to address how well their chips handled media chores. Both companies have built into their solutions advanced hardware for dealing with common concerns: Intel has loaded Sandy Bridge with dedicated hardware accelerators, filters, and rendering engines; AMD is deploying in Fusion the third-generation version of its Unified Video Decoder (the same that's being used in its new 6000-series video cards).

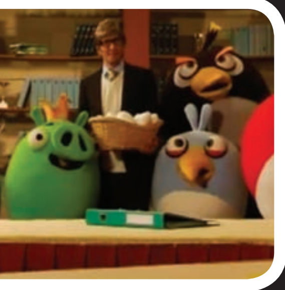
Power savings. Fusion and Sandy Bridge mark another major sea change in the way processors are conceived: These are being built for laptops first. That's not to say the desktop versions won't be more powerful or offer special features, but both AMD and Intel are touting their solutions' effects on power usage and battery life—two things almost always of more concern to mobile users. Because laptops have finally eclipsed desktops in terms of sales rates, this is a smart move that ensures on-the-go machines won't be hobbled by future developments.



How They're Different

DirectX. One of the key features of the Fusion graphics hardware is support for Microsoft's most advanced set of multimedia APIs, DirectX 11 (DX11). DX11 offers a number of visual benefits to users, most notably around a technique called tessellation that piles on the polygons to achieve 3D graphics that look smoother and more detailed than any have before. Sandy Bridge, however, will be supporting the previous standard, DX10.1. There are very few (if any) DX11-only games today, so this isn't likely to be a big demerit, but AMD's support is definitely more current.

They're not competing... yet. AMD's first Fusion chips, in the "Zacate" (high-performance) and "Ontario" (ultra-low-power) families, are intended for sub-$500 laptops, netbooks, nettops, and all-in-ones, and there won't immediately be facing off against Intel's more powerful mainstream solutions. AMD will eventually expand Fusion up its line, but it won't start hitting desktops, for example, until the middle of next year; Sandy Bridge desktops and notebooks will hit much earlier than that.



Unless you have been living under a rock, you must have heard of the popular game 'Angry Birds' that has been wrecking productivity across the globe. Well, in an effort to get you guys back to work, here they are trying to settle their differences across the table.

http://goo.gl/jDwAa

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)

SAMSUNG OMNIA 7

Windows Phone 7 smartphones are all extremely similar, but the Samsung Omnia 7 manages to stick out thanks to its Super AMOLED display and excellent design. If you're in the market for a WP7 smartphone, the Omnia 7 should top your list.

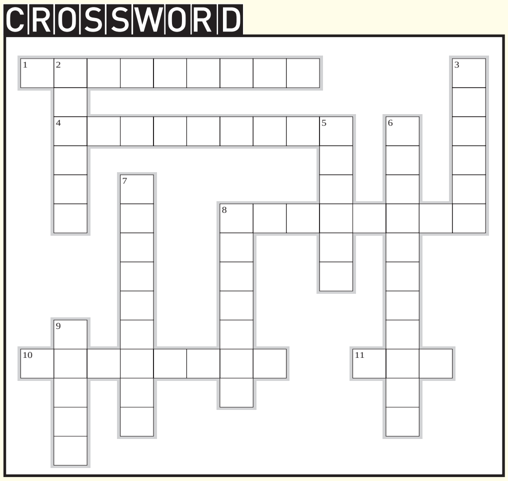
LG E-NOTE H1000B

LG unveiled this gorgeous Windows 7 tablet only in Korea. Powered by an Intel AtomZ510 or Z530 processor, with 1GB of RAM, a 16GB SSD, Wi-Fi b/g/n, Bluetooth, and an SD card slot. No word on pricing yet.

BUGATTI VEYRON

What can we say, we love all things tech! Volkswagen Group recently launched this speed demon in India and we're excited. The 987bhp supercar that touches 407 kmph top speed can do 0-100 in 2.7 seconds. Price? A whopping ₹16 crore.

CROSSWORD



ACROSS

1. Japanese operator brings 3G to India
4. Manufacturer of PIC in line follower robot
8. Overwriting contents stored in the ROM
10. Open source social networking platform that originates from "Dispersion"
11. 4G also known as

DOWN

2. 4chan vs. ?
3. Fuel cell manufacturer from Taiwan
5. Panasonic's 3D TVs are made using this technology
6. Google's android development software
7. Permissions gained when a Linux user keys in "su"
8. Mid range category of phones (Hint digit 101)
9. D3100, D3000, D5000, D300, D3

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://goo.gl/l1RUp

Duration: 3m 18s

Astronaut Scott Kelly, shows off the International Space Station's observation deck known as the cupola.

http://goo.gl/l1RUp

Duration: 4m 57s

Check out this cool comparison video between the two competing gaming consoles. What's on your shopping list?

http://goo.gl/ECZcE

Duration: 3m 19s

Vint Cerf, the father of the internet talks about all things digital and how the year 2020 may shape out for us.

ASUS EAH6870 and EAH6850 DirectCU

AMD's Radeons hit 6000

ASUS EAH6850

ASUS EAH6870

AMD 6850

The month of November has been an exciting one for PC gamers all over. AMD launched their Radeon 6000 series while NVIDIA followed with the GTX580. We received a stock AMD Radeon HD6850. ASUS sent us their overclocked version of the 6850 – EAH6850 DirectCU and also a Radeon 6870 card.

The Radeon HD6850 comes in to replace the Radeon 5850, which happens to be a more expensive card. ASUS has gone with a custom cooler on their EAH6850 card. The stock design has an enclosure that covers the entire card. A similar design can be found on the Radeon HD6870 card, which is a slightly larger card than the Radeon 6850.

In terms of specifications and numbers on paper, the Radeon 6850 and Radeon 6870 should be faster. The Radeon 6870 runs at a high 915 MHz, while the 6850 runs at a slower 775 MHz. The ASUS EAH6850 DirectCU runs at a slightly higher 790 MHz.

When it comes to performance, the statistics don't convert to mind boggling numbers. The cards are a tiny bit slower than their predecessors. When compared with each other, the stock AMD Radeon 6850 perform more or less 10 to 15 per cent slower than the ASUS Radeon 6870. The overclocked ASUS Radeon 6850, on the other hand, does a much better job. At times, it lags just slightly behind the ASUS Radeon 6870. This still means that you get playable frame rates across all the graphics intensive games. We ran our benchmarks with 4x FSAA and the highest possible quality settings. The scores are presented in the table below. Drop the settings by a little bit and you'll see better frame rates.

What AMD brings to the table is much more affordable hardware that has slower power requirements and run much cooler. Pricing for the stock Radeon 6850 is ₹13,000 whereas the overclocked ASUS EAH6850 DirectCU is just ₹500 more. The slightly faster ASUS EAH6870 is way more expensive. It sells at an MRP of ₹17,500.

As of now, the overclocked ASUS Radeon 6850 is the card to go for. It offers great value for money. If market prices are closer to ₹11,000, it's even better. The card is faster than the stock GeForce GTX460. For those who were planning on getting the Radeon 5850, the 6850 is a cheaper alternative by far. With a slightly overclock, it may be possible to match the 5850's performance. The EAH6870 is slightly faster than the Radeon 5850, but only go for it if you can buy it for under ₹14,500 in the market.

Contact

Vinay Shetty (ASUS)
Phone: +91-22-6766 8800
Email: reachus@asus.com
Web site: www.asus.in

Scores

Brand	**AMD**	**ASUS**	**ASUS**
Model	Radeon HD6850	EAH6850 DirectCU	EAH6870
Price	13,000	13,500	17,500
Specifications			
Core Clock (MHz)	775	790	915
Memory Clock (MHz)	1000	1000	1050
Memory size (MB)	1024	1024	1024
Benchmarks			
3D Mark Vantage	13008	14126	14947
3D Mark Vantage (GPU score)	11689	12936	13959
Crysis Warhead (1680 x 1050, DX 10, Enthusiast)	27	28	31
STALKER Clear Sky (Day, 1680 x 1050, 4xAA, DX10, Extreme)	34.6	37.7	40.6
Far Cry 2 (1680 x 1050, Ultra High, 4x AA)	50.19	49.5	53.91
Ratings			
Features	7.5	7.5	7.5
Performance	7	7.5	7.5
Build Quality	7	7	7.5
Value for Money	7	7.5	6.5
Overall	7	7.5	7

Garmin Asus A10

Your navigational companion and also a phone

Coming in an all black body, the 3.2 inch capacitive touchscreen phone - Garmin Asus A10 - has a slight rubberised finish which gives a good grip. The A10 is runs on a 600 MHz Qualcomm processor and comes with a skinned Android 2.1 OS. It comes with seven default home screens. The first screen is the Garmin navigation page with options to view a map, browse places of interest around etc. Navigation apps like Where Am I? and Where To Go? are quite nifty and really helpful in simplifying your journey. Pre-loaded maps in the phone is a huge plus. Call clarity was good in Zone 1 and 2. Media playback was decent but you will definitely want to invest in a decent set of earphones if you are a big music enthusiast. The 5 MP camera clicked great photographs outdoors in daylight, but absence of flash rears its ugly head when it comes to indoor and low light shooting. We liked the geo-tagging feature present in the camera options. Battery life of the device was something of a worry, if you have GPS activated. On a full charge it did not seem to last more than 6 hours. Another cause of worry was the constant hanging of the phone. It takes atleast a minute to start up though. The phone is priced at a competitive ₹18,990. But with certain flaws like hanging, long start up time, poor battery life and absence of flash, we feel that it should lower. Wonderful product to have for someone who is a travel buff and does a lot of long drives.

Specifications

OS : Android 2.1; Pre-loaded maps; Screen : 3.2-inch capacitive; Camera : 5MP; Battery : 1500mAh

Contact

Garmin Asus
Phone: 1800 209 0365
Email: hh_india@asus.com
Web site: www.garminasus.com
Price: ₹18,990

6.5/10

Features..........................7.5
Performance....................6.0
Build Quality 6.5
Value for money............6.0

LG Optimus One

Value for money Froyo

Among the low/mid-range Android devices in the market, the LG Optimus One P500 stands out for its up-to-date OS (Froyo), snappy performance, and bundled apps. Built solidly, the 3.2-inch screen has a wide bezel, below which lie the Android buttons, with home and return grouped on a single large centre button, with options and search beside it on separate buttons. The Android buttons have a solid tactility to them, and the volume rocker and power/lock button, curved, are ergonomically located and provide crispy feedback.

The 600MHz CPU is surprisingly snappy, barely showing any lag even when running several third party and native apps, and this is undoubtedly where the phone's 512MB RAM and Froyo (a much speedier OS) make it shine over most of its competitors, including the Galaxy 3. Slight lag is felt from the moment when one clicks the call button to the time it takes for the calling begin, occurring when plenty of apps are hogging the memory.

It did not drop any calls during our testing. The device earpiece volume was sufficient, but could have been louder. Call clarity is good in both handset and handsfree mode. Slight banding can be seen in certain videos. Both Xvid and DivX are supported, and in our testing, almost all the videos played flawlessly, except for some stuttering with some AVI files.

Picture sharpness, colour accuracy (slight red hue), and noise levels are all quite good for a 3MP camera. Under low light, with no flash onboard, quite a lot of noise is evident

Only real compromises a buyer has to make for getting Android 2.2 at roughly ₹13,000 are the flashless camera and the lack of free Office document editing.

Specifications

OS : Android 2.2; Screen : 3.2 inches 320 x 480 pixels; Battery : 1500 mAh; Camera : 3MP

Contact

LG India
Phone: NA
Email: krishnendubanerjee@lgindia.com
Web site: www.lgmobiles.com
Price: ₹13,000

7.0/10

Features..........................6.5
Performance 7.0
Build Quality...................7.0
Value for money............7.0

Bold 9780 stars selling in India
The latest phone from BlackBerry - Bold 9780 has started selling in India at a price of around ₹26,900

The Daily on iPad
Rupert Murdoch's News Corp., is soon to unveil a digital newspaper exclusively for the iPad called The Daily

Nikon D3100

Compelling offer for entry level DSLR seekers

The successor to the Nikon D3000 is here, with additional features like a 14MP CMOS sensor, live view mode and full HD recording. Aesthetically the D3100 looks similar to the D3000 as far as the front portion is concerned, but there are a few enhancements. For starters we really like the sturdy rubber grip which lacks the infrared sensor. On the top portion just beside the jog dial, you have a lever to toggle between drive modes. There is a spring loaded lever on the top right hand side of the 3 inch screen, which enters the camera in the live-view mode.

One thing we would have liked is a dedicated button to change ISO levels. On the left hand side there is an additional button which allows you to change the camera settings without having to go into the menu – giving thumbnail size images to put the function in context specially in WB modes - which is nice. Customisable function button below the active flash button does allow you to program it to either one for the four - image size, ISO, white balance or Active D lighting options.

Picture quality is quite good with crisp colours. Outdoor photography in daylight did not throw up any issues. The LCD was viewable in sunlit conditions. Low light performance was quite impressive. Even on pictures taken on ISO 3200, we noticed very little noise – a definite plus. Focussing is snappy thanks to the focus assist lamp in the front. The HD recording feature was decent. But we like auto-focus while live recording.

The D3100 is priced at ₹32,950 (with the 18-55mm lens) which is a very good price for this entry level DSLR.

Nikon
D3100

Specifications

Sensor : 14MP CMOS sensor; LCD screen : 3 inches TFT LCD; Auto Focus : 11 pt auto focus; ISO : 100 to 3200 (boost upto 12800); Movie format : MOV, H.264

Contact

Nikon India Pvt. Ltd.
Phone: 1800-102-7346
Email: nindsupport@nikonoa.net
Web site: www.nikon.co.in
Price: ₹32,950 (₹27,250 - only body)

7.0/10

Features	7.0
Performance	7.5
Build Quality	7.5
Value for Money	7.0

Sony DSC TX9

Goodness of 3D in your pocket

TX9 is a 12.2 MP camera which is capable of shooting 3D still images. The surprising part is that unlike other 3D cameras that we have seen, which sport dual lenses (to capture the left and right eye image) for 3D capture, the TX9 does that with a single lens. This is possible with the help of sweeping the camera from left to right, which covers the image from the perspective of both the eyes. The camera then merges those images to give you a three dimensional image. User interface is quite easy to navigate through. You have around eight shooting modes including a 3D shooting mode, Superior Auto Adjustment mode – which will click a burst of four to six images and then auto correct them for noise or other fallacies to give one clean image.

Image quality was quite crisp in daylight as well as under low lighting conditions. Touchscreen is quite responsive and we did not find any lag, though it is a finger print magnet. Visibility in bright sunlit conditions is not bad. The 3D shooting mode is useless unless you have a 3D TV to view the image. The 3D Sweep Multi angle mode is quite impressive as it gives you an idea of the depth in an image by tilting the camera on the left and right in the review mode due to the gyro sensor. TX9 can shoot HD videos at 1080i resolution. The video output was much better outdoors in brightly lit conditions.

At a price point of ₹21,990, the TX9 is targeted at premium users. An ideal buy for those who indulge in a lot of panoramic shooting as the stitching of images happens within the camera. Do not buy it purely fior its 3D shooting mode.

Cyber-shot
Carl Zeiss
SONY

Specifications

Sensor : 12.2 MP CMOS; Optical Zoom : 5x; Video resolution : 1080i; LCD : 3.5 inch touchscreen

Contact

Sony India
Phone: 1800-103-7799
Email: sonyindia.care@ap.sony.com
Web site: www.sony.co.in
Price: ₹21,990

6.5/10

Features	7.5
Performance	6.5
Build Quality	7.0
Value for money	5.5

PlayStation Phone in February?
Reliance And Tata hold talks with to launch first Apple iPhone CDMA phone in India

Nokia X5 in India
Nokia X5, the slide-out QWERTY phone having a 2.36-inch screen, 5MP camera with LED flash and one year of unlimited mucjh from the Ovi store

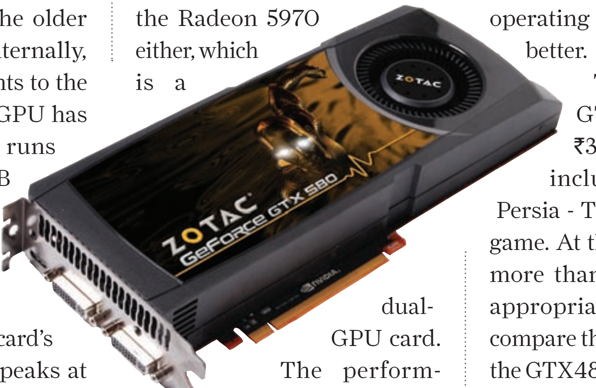
ZOTAC GeForce GTX580

Green Company's monster inches forward

NVIDIA response to AMD, the GeForce GTX580 has been out and ZOTAC sent us across their card for review earlier last month.

The GeForce GTX580 looks almost identical to the older GeForce GTX480. Internally, there are improvements to the cooler. The GTX580 GPU has 512 CUDA cores and runs at 772MHz and 1.5GB of GDDR5 memory. On the rear end of the card, there are two DVI ports and a mini-HDMI port. The card's power consumption peaks at 244W and it get that power through a 8-pin and a 6-pin power connector.

All the upgraded specs means that the performance has improved. The ZOTAC GeForce GTX580 gave a 3DMark Vantage score of 22,817. Performance at resolutions of around 1920x1200 show great results. It doesn't match up to the Radeon 5970 either, which is a dual-GPU card.



The performance improvements over the GTX480 range to from 10 to 20 per cent. So in totality, the GTX580 isn't miles ahead of the GTX480 as some might have expected. In fact, it feels like an improvement, just like the GeForce 9 series was somewhat of an optimization of the GeForce 8. Power requirements are slightly lower and operating temperatures seem better.

The ZOTAC GeForce GTX580 sells for ₹31,000. The bundle includes a Prince of Persia - The Forgotten Sands game. At that price, it's a little more than the GTX480. It's appropriately priced if you compare the performance with the GTX480. If you're building an extreme high-end gaming rig, it's worth considering two of these cards for SLI. A single card should suffice for a gaming

Specifications

GPU: NVIDIA GeForce GTX580
Core Speed: 772 MHz
CUDA Cores: 512
Memory: 1536 MB GDDR5

Contact

Aditya Infotech Ltd.
Phone: +91-11-4666 5666
Email: sales@adityagroup.com
Web site: www.zotac.com
Price: ₹31,000

7.0/10

Features	7.5
Performance	8.0
Build Quality	7.5
Value for money	5.5

Plantronics Discovery 975

Bluetooth companion for the ear

For those extremely busy people, single ear Bluetooth headsets are the only way to go wireless and still stay connected with the rest of the world. Plantronics is one of the few reputed brands in this segment. Their latest model is the Discovery 975; it's a stylish, compact Bluetooth headset.

The grey coloured single-body design with the transparent earbuds makes it a very attractive headset. The build quality of the device is pretty good as well. Fake leather is used at one side which feels rather realistic as well. The bundled pouch doubles as a charging dock for the headset.

Setting was very easy on our first phone – a Motorola Milestone, but we faced some issues connecting when we tried pairing it with phones such as the Nokia XtremeMusic 5530 and the Samsung Wave.

Connectivity is excellent. The wireless range is decent and so the audio quality excellent. The single button is sufficient to increase the volume, accept calls, power on and power off the device. So, operation is pretty straight forward and doesn't require a lot of time to get used to.

The price of ₹5,499 is very expensive for a Bluetooth set. The performance may be great, but most users with cheaper phones will think twice before buying it.

Specifications

Bluetooth v2.1 + EDR,
Built-in Li-ion battery

Contact

Priya Rustogi
Phone: +91-124-454 5703
Email: priya.rustogi@plantronics.com
Web site: www.plantronics.com
Price: ₹5,499

6.5/10

Features	7.0
Performance	7.0
Build Quality	7.5
Value for money	5.0

Camera that sees around corners
MIT researchers have developed a camera that utilises multi-bounce reflection and hidden geometry to take pictures outside the line of sight

The new action figure
Apple fanboys have a new way to proove their loyalty with this action figure of Steve Jobs himself price around $80

Apple iPod Touch 4G

Fresh apples in the pod

The new Pod is sleek and slim and looks stunning, even with the screen off. The facia looks like one plane of black glass – very stylish.Both the 3.5mm jack, and the charger slot now have a slight taper to their periphery, meaning part of the charger and the earphone plug, are visible from the rear, as is a single loudspeaker unit, with a neat, recessed chrome grille.

There are two cameras on the 4G. Both these can be switched between, with a simple on-screen option when the camera is activated. The front camera is a VGA one, whereas the rear one supports a still resolution of 960 x 720 pixels, or video recording at 720i.

A resolution of 960 x 640 pixels, while maintaining the same display size of 3.5-inches increases the pixel density. The result is a very crisp display. The sunlight legibility of the display is also surprisingly good. Viewing angles are poor, thanks to the super reflective display.

The newer iPod generates more heat, especially noticeable when charging the device, and while playing games.Battery life also seems to have taken a nosedive. With music playback, battery life is not affected as it is while gaming.

Bass levels are good. There is a good bit of impact and weight that will keep bassheads foot tapping. The slightly recessed midrange seems to cause guitars to lack a bit of sizzle, and this makes guitar solos slightly less emotive and involving.

The highs are pretty extended, and there is good instrument separation.

For a price of ₹19,900, the iPod Touch 4G is a premium PMP with a lot of features. It excels at music, videos and gaming, making it a complete device, and if you can afford to spend this much, we highly recommend it.

Specifications

OS: iOS 4.0; Display: 3.5-inches, 640x960 pixels, 24-bit colour; weight: 101 grams; Capacity: 8, 32, 64 GB; Wi-Fi: 802.11n

Contact

Apple India
Phone : +91-80-2574 4646
Email:indiasales@mac.com
Web site: www.apple.com
Price: ₹19,900

8.0/10

Features	9.0
Performance	8.5
Build Quality	8.5
Value for money	7.0

Dell Inspiron M501R

Superior looks, inferior battery

Specifications

OS: Windows 7 Home Basic;
CPU: AMD Phenom II N930;
RAM: 4 GB DDR3
GPU: ATI Radeon 550v 1 GB;
HDD: 500 GB 5400 rpm
Screen : 15.6-inch WLED;

Contact

Dell India Pvt. Ltd.
Phone: 1800- 425-4026
Email: dechama_uthappa@dell.com
Web site: www.dell.co.in
Price: ₹42,900

6.0/10

Features	6.0
Performance	6.0
Build Quality	7.0
Value for money	5.5

The glossy surface of the Dell Inspiron is bedazzling. It has a brush metal glossy finish on the top flap as well as the palm rests. It looks quite elegant. M501R houses a quad core AMD Phenom II 930 processor alongwith 4 GB of DDR3 RAM. This is one of those rare laptops you see nowadays which has some portion of the base projecting beyond the hinge of the monitor. The M501R has three USB ports, of which two are located on the rear side alongside a VGA port - which is not really helpful. Mouse trackpad is quite responsive and supports scrolling gestures. The system runs a Windows 7 home premium OS. The 15.6 inch screen has a glossy finish and is quite luminiscent.

In synthetic tests Like 3D Mark 06 it gave an overall score of 6064 which is quite good thanks to 1 GB of video RAM. Cinebench rendering gave an impressive score of 7756. Due to the quad core processor and 4GB of RAM, this laptop delivers the goods when it comes to processor intensive tasks. It completed a 100MB VOB to DIVX conversion task in under a minute. But the battery life is huge disappointment. In out battery life tests, it lasted a mere 3 hours, which is not good at all as we had just one video playing on the loop. With multitasking that number will go down further.

At a price of ₹42,900 it seems a bit pricey mainly due to the poor battery life.

eBay releases iPhone app

eBay released Version 2 of its iPhone app which will allow you to buy and sell products on eBay and scan barcodes for comparison shopping

Bazaar mini

QUICK INSIGHTS FROM INDEPTH TESTS

The Digit Test Centre receives and tests enough products on a monthly basis to fill hundreds of pages with reviews. Each and every one of the products reviewed in Digit is tested thoroughly, and put through the same rigour as you're used to seeing in our comparison tests. Bazaar mini is our way of ensuring that you get the results of our extensive testing in a more timely manner, and in a compact and easy-to-read format. Send feedback and suggestions on this new section to testcenter@thinkdigit.com.

CELLPHONE

Aroma AD555	**Nokia X6**
Price : ₹2,999	Price: ₹14,449
SPECIFICATIONS	
Type .... Dual SIM phone Screen .... 2.0-inch TFT Battery .... 750 mAh Camera .... 2 MP	Screen .... 3.2-inches Resolution .... 360 x 640 Camera .... 5MP Battery .... 1320 mAh
TEST CENTRE RATINGS (All Scores out of 10)	
Features .... 6.0 AD555 comes with a skinned Java UI giving it a pleasing look. It has shortcuts for audio player	**Features .... 6.5** It features a capacitive touchscreen with Symbian Series 60 operating system.
Performance .... 4.5 Cramped keypad is huge letdown. The volume of the device was found to be quite low and you will have to keep the phone pressed to your ear.	**Performance .... 6.0** Excellent call clarity in Zone 1 and Zone 2. Battery performance is mediocre. Phone's 5MP Carl Zeiss lens camera is quite decent
Build Quality .... 6.5 Comes in a sleek form factor with a sturdy build	**Build quality .... 7.0** Built out of high quality materials and has a nice, hefty feel to it.
Value for money .... 6.0 Decent phone for the price of` ₹2,999.	**Value for money .... 5.5** At ₹14,449, this is an expensive phone.
WE SAY	
6.0	**6.5**
Go for this phone if you are not an SMS junkie and want a sleek good looking phone. A 2MP camera with flash is an incentive over other phones in this range. The still camera was average at best whereas the video camera dosen't really deliver the goods. It comes bundled with some accessories like a red leather phone case and a microSD card reader out of the box.	While the phone is well built, stylish, and sports a decent 5MP camera, the combination of its dated and not-touch-friendly operating system along with the lack of RAM and CPU power makes it a slow and expensive performer compared to many other phones out there at equivalent or lower prices, such as some of the lower-end Android phones from Samsung, HTC and LG.
ALSO SEE: 1) **Micromax Qube** *Digit October 2010* 2) **Wyncomm Y50** *Digit September 2010* 3) **Intex IN 4410** *Digit April 2010*	**ALSO SEE:** 1) **Samsung Galaxy 3** *Digit November 2010* 2) **HTC Widlfire** *Digit October 2010*

iOS 4.2 launched

Apple's iOS 4.2 is now available for iPod Touch, iPad and iPhone features AirPrint - a WiFi printing architechture

Fighting cyber-crime

Central Bureau of Investigation (CBI) and Nasscom have signed a memorandum of understanding to share data on fighting cyber crime

PRINTERS

Canon PIXMA iP 2770

Price: ₹2,695

Canon iP4870

Price: ₹8,155

SSD

Kingston SSDNow V Series 64 GB

Price: ₹9,000

TRACKPAD

Panache Smile PC

Price: ₹15,000

SPECIFICATIONS

Canon PIXMA iP 2770

Maximum resolution	4800 x 1200
Dimensions	445 x 250 x 130mm
Interface	USB 2.0
Weight	3.4kg

Canon iP4870

Maximum Resolution	9600x2400
Dimensions	431 x 297 x 153mm
Interface	USB 2.0
Weight	5.7kg

Kingston SSDNow V Series 64 GB

Capacity	64 GB
Form Factor	2.5 inch
Interface	SATA 2.0

Panache Smile PC

CPU	1.6 GHz Atom N270
RAM	1GB DDR2 @ 533MHz
Chipset	Intel 945GSE
HDD	320 GB

TEST CENTRE RATINGS (All Scores out of 10)

Canon PIXMA iP 2770

Features 6.0
It is compact in size meant for B/W and colour prints only. It uses hybrid ink.

Performance 5.5
Black and white text page takes upto 30 seconds. The print quality is average.

Build quality 6.0
The overall appearance is glossy black which adds to its aesthetic appeal.

Value for money 6.5
Affordable printer at a price point of low price point of ₹2,695.

Canon iP4870

Features 6.0
The printer has two loading docks, front for CD printing and rear for paper loading.

Performance 7.0
The text printing was good. No le smudging was seen in colour prints. It gave out very high accuracy and detailing in photos.

Build quality 7.0
The tray build quality is good and the rear tray can hold up to 400 pages at one instance.

Value for money 6.0
The price of ₹8,155 is high for this printer.

Kingston SSDNow V Series 64 GB

Features 6.0
It is a 2.5 inch feather-light drive. This SSD supports S.M.A.R.T and TRIM command.

Performance 6.5
It gave write speeds of over 90MBps in real life file transfer tests. A 1GB photoshop file transfer took 10 secs only.

Build quality 6.0
Sturdy build and come with a dual-functional case which provides SATA to USB conversion.

Value for money 5.5
Competitively priced at ₹9,000 for its performance.

Panache Smile PC

Features 6.0
This thin client runs on a 1.6GHz processor and sports a DVI/VGA display options with 3 USB ports.

Performance 5.0
Transferring a 4 GB folder took 230 seconds which could too painful in daily life. Synthetic tests too did not impress.

Build quality 7.0
It is heavier than standard small cabinet with overall rounded edges.

Value for money 5.5
For ₹15,000 we think this PC is bit overpriced.

WE SAY

Canon PIXMA iP 2770

6.0

For those who don't care about print time and want to use for a printer for home or small office use, this is an ideal printer for you. Photo printing at high quality takes quite a while. Even though the printer is affordable, you will have to invest in cartridges which do cost anywhere from ₹700 to ₹900.

ALSO SEE:
1) **Canon PIXMA iP1980**
Digit January 2010
2) **Canon PIXMA iP3680**
Digit January 2010
3) **Epson B-500DN**
Digit January 2010
4) **Ricoh SP4100NL**
Digit January 2010

Canon iP4870

6.5

The photo quality of the prints is great. This printer uses Canon's proprietary Picolitre technology for printing texts and photos with highest resolution of 9600dpi. This is an ideal printer for those who print a lot of colour documents as its priced quite high for normal home usage. It supports PictBridge which is ideal for digital photography enthusiasts who want quick prints without turning on their PC.

ALSO SEE:
1) **Canon PIXMA iP3680**
Digit January 2010
2) **Epson B-500DN**
Digit January 2010

Kingston SSDNow V Series 64 GB

6.0

As is the case with SSDs, the price is a major concern here as well. If you are looking for performance laptop and one who needs very high read/write speeds then this may be one of the options to choose from. TRIM helps in maintaining the write speeds of the drive over its lifetime.

ALSO SEE:
1) **Intel SSD 80GB**
Digit January 2010
2) **Kingston SSD Now M Series 80GB**
Digit January 2010
3) **Intel X25-V**
Digit July 2010

Panache Smile PC

6.0

Although being compact is one of its major USP's It does not perform up to the mark. If you are one of those who are thinking of a compact SoHo solution then this may be your option. As per our tests, encoding a 100MB DivX file took about 280 seconds which is too slow. Also WinRAR gave a rating of 109 kbps. Keeping in mind that there are much better options, you should really consider all the other competitors as well. It is not a very aggressive performer.

Over the air printing

HP will bring wireless printing via its ePrint app for BlackBerry to Select offices such as FedEx, Hilton hotels among others

600,000 tablets sold

Samsung has told a Korean newspaper that it has sold over 600,000 Galaxy Tab tablets within a month of its launch worldwide

CABINET

Antec DF-85

Price: ₹15,122

ROUTER

Linksys E3000

Price: ₹10,999

SPEAKER

Sony SA-ID5000

Price: ₹4,999

CABINET

Cooler Master Elite 430

Price: ₹3,500

SPECIFICATIONS

Antec DF-85

Format	Full tower
Fans	5 x 120mm, 2 x 140mm
Expansion slots	7
Dimensions	596 x 213 x 505mm

Linksys E3000

WiFi standard	802.11n
Dualband	Yes
Ethernet ports	4 (Gigabit)
USB port	1

Sony SA-ID5000

Type	5.1 surround speakers
Power	25W
Driver size	130mm woofer, 70mm satellites

Cooler Master Elite 430

5.25-inch bays	3
3.5-inch bays	7
Weight	5.8 kg
Dimensions	190 x 424 x 490 mm

TEST CENTRE RATINGS (All Scores out of 10)

Antec DF-85

Features 7.0
Provision for water cooling and easy access to fans is available. Supports USB 3.0.

Performance 7.5
Five fans with controls should allow for great cooling. has enough space for hardware such as a Radeon HD5970.

Build quality 7.0
Good overall build quality; scroll wheel and buttons around it could have been a little sturdier.

Value for money 5.0
Quite a bit expensive for the features and build quality.

Linksys E3000

Features 7.0
The USB connectivity feature allows you to use the router as a NAS device.

Performance 7.0
The performance is pretty good. Speeds touch 3 to 4 MBps even across rooms.

Build quality 7.5
The design is attractive very much like some of the last models from Linksys.

Value for money 5.0
At ₹10,999, it's one of the more expensive routers.

Sony SA-ID5000

Features 6.0
Comes with a wireless remote control, but no 3.5mm analog jack to RCA converters.

Performance 5.5
It's average performer. There is distortion in audio beyond 70 per cent volume. Woofer is pretty punchy but satellites below par.

Build quality 6.5
Good build quality. Remote is too flat and too light weight. Decent cable quality.

Value for money 5.0
A price of ₹5,000 can fetch you more powerful speakers.

Cooler Master Elite 430

Features 6.0
Has just enough space for a Radeon 5970. Tool-less features from higher models built into it.

Performance 6.5
The thermal performance is decent but isn't recommended for SLI and Crossfire setups that feature higher-end cards.

Build quality 6.5
The build is good, with decent gauge of metal being used. Side panels have a fair bit of flex.

Value for money 8.0
At ₹3,500, Elite 430 offers great value for money.

WE SAY

Antec DF-85

6.5

Good option to consider if you're looking for a cabinet for a gaming rig. It's attractive, futureproofed and also fit on the latest high-end graphics cards. Quality could have been a little better, but there are far worse. We only wish it was cheaper by at least `3,000 to `4,000. Cabinets in this price range generally have more features and slightly better build quality.

ALSO SEE:
1) **Lian Li Armorsuit PC-P80**
Digit February 2010
2) **Lian Li A71F**
Digit April 2010
3) **Cooler Master 690 II Advanced**
Digit October 2010

Linksys E3000

6.5

The E3000 is a good router if you're looking something that can provide WiFi service in several rooms. If you're looking for a simple router for just browsing the web, then look at cheaper options under the ₹5,000 bracket. This router is more for the power user. The features aren't very unique either which makes it an average buy for most users.

ALSO SEE:
1) **Buffalo WHR-HP-GN**
Digit July 2010
2) **Linksys WRT320N**
Digit July 2010
3) **Netgear JWNR2000**
Digit July 2010

Sony SA-ID5000

6.0

The Sony SA-ID5000 speakers are pretty neutral in their sound signature but performance issues crop up when the power is cranked way up. The punchy bass is nice to have while playing games and watching movies. There are better options to choose from for the same price.

ALSO SEE:
1) **F&D F900U**
Digit October 2010
2) **F&D F700U**
Digit October 2010
3) **Altec Lansing MX6021**
Digit April 2010
4) **Creative Gigaworks T3**
Digit April 2010
5) **Sony SRS-D511**
Digit April 2010

Cooler Master Elite 430

7.0

It's a good chassis – definitely a cut above cheaper offerings from smaller vendors. A very nice option for anyone looking at a good, value oriented chassis. The market operating price is around ₹2,700. If you can get it at this price, it's a steal. It manages to address the needs of mid range gamers rather well.

ALSO SEE:
1) **Lian Li Armorsuit PC-P80**
Digit February 2010
2) **Lian Li A71F**
Digit April 2010
3) **Cooler Master 690 II Advanced**
Digit October 2010

Ice touchscreen!

A team at Nokia, Finland has created an unlikely but a first touchscreen of ice dubbed as Ubice

Sharp 3D phone in India soon

Sharp India will soon launch Galapagos 003SH and the 005SH which are 3D phones running on Android 2.2 with a 1GHz processor

CELLPHONE

Byond Q99	g-Fone DUO 468	Aroma AD335	XAGE M108
Price: ₹3,999	Price: ₹2,999	Price: ₹2,299	Price: ₹3,399

SPECIFICATIONS

Byond Q99	g-Fone DUO 468	Aroma AD335	XAGE M108
Type ....Dual SIM phone Keypad ....QWERTY Screen ....2 inch TFT Battery ....1000 mAh Li-ion battery	Type ....Dual SIM phone Screen .... 2 inches TFT Camera ....VGA Battery ....1200 mAh Li-ion battery	Type ....Dual SIM phone Camera ....VGA Screen .... 2 inches TFT Battery..........1050 mAh	Type ....Dual SIM phone Screen ....1.8 inches TFT Battery ....1000 mAh Camera ....VGA

TEST CENTRE RATINGS (All Scores out of 10)

Byond Q99	g-Fone DUO 468	Aroma AD335	XAGE M108
Features ....5.5 It has a 1.3MP camera, an optical trackpad and integrated social networking apps like Facebook.	Features ....5.0 It has a five shortcuts on the homescreen in a dock based fashion. Has a Facebook app.	Features ....5.0 Aroma AD335 features a touchscreen alongwith a stylus.	Features .... 6.0 XAGE M106 sports a loud speaker on the rear side. Hotkeys for music are present.
Performance ....5.0 Call quality was good in Zone 1 and 2. Optical trackpad is not very responsive. Camera quality was quite poor.	Performance ....5.0 Call quality was good in zone 1 but OK in zone 2. The bundled in earphones are of poor quality. Buttons are hard to press.	Performance ....5.5 The touchscreen is not very responsive to touch and using the stylus on such a small screen is pointless.	Performance .... 6.0 Speaker is really loud like but the quality of music on loud volume is not really great. Call quality was good in Zone 1 and 2.
Build quality ....5.5 Decent build quality. The glossy battery cover is a dust magnet.	Build quality ....6.0 Build quality is quite sturdy. It comes with an extra set of back cover.	Build quality ....4.5 Plastic quality of the phone looks quite cheap. Keypad is also bad.	Build quality ....6.0 Decent build quality with rear cover which provides good grip. Keypad has well laid out keys.
Value for money.......... 5.5 At ₹3,999 we felt that the price was a bit high for this phone.	Value for money.......... 5.5 At ₹2,999 this is a decent buy for an entry level QWERTY phone.	Value for money..........6.0 The pricing of the phone is quite good at ₹2,299.	Value for money.......... 6.5 The phone is quite well priced at ₹3,399.

WE SAY

Byond Q99	g-Fone DUO 468	Aroma AD335	XAGE M108
5.5	5.5	5.0	6.0
The phone has decent build but a poor camera and multimedia options. The slow response of the optical trackpad may not go down very well with most users as it requires constant swiping which can lead to a sore thumb. Has in-built social networking apps like Facebook, Twitter, Skype, etc. Good to purchase if the price is under ₹3,000.	As an entry level phone it is good as it does a decent job of calling and messaging. But we felt that a 2MP camera would have added to the appeal. The VGA camera gives poor quality photographs. Not recommended for multimedia junkies.	Go for this phone if you are looking at a basic entry level dual-SIM phone. It bundles in a pouch and a micro SD card and a mirror guard which is quite thoughtful. Calling and messaging are its strong points. Its not meant for its multimedia prowess. Call quality was good in Zone 1 and 2. Handsfree is not that great as it hangs quite low and you have to pull the mic up to your mouth to be audible.	The selling point of the phone is its basic functionalities, the user interface and the loud speaker. As an entry level phone, it has got its basics right. Earphones though are not really good. Homescreen is neatly divided into six shortcut icons. Menu reminds one of the interface of Nokia phones with similar looking icons.
ALSO SEE: 1) **Intex IN 5030** *Digit April 2010* 2) **g-Fone 351N** *Digit April 2010* 3) **Intex IN 4420** *Digit April 2010*	**ALSO SEE:** 1) **Olive VG2300H** *Digit April 2010* 2) **Videocon V1405** *Digit April 2010* 3) **Videocon V1306** *Digit April 2010* 4) **Huawei C5600** *Digit November 2010* 5) **Videocon V1425** *Digit September 2010*	**ALSO SEE:** 1) **Wyncomm Y22** *Digit September 2010* 2) **Intex IN6633** *Digit September 2010*	**ALSO SEE:** 1) **Micromax PIKE X510** *Digit October 2010* 2) **Movil MC100** *Digit November 2010*

Google syncs with Microsoft

Google Cloud Connect is an add-on for MS Office that syncs documents, spreadsheets and presentations from Office 2003, 2007 and 2010

Instant backfires

Google's Instant Preview has been rumoured to generate false traffic; a fix is being worked on

HEADPHONES

Zebronics Diamond Series DJ
Price: ₹1,100

SPECIFICATIONS

Sensitivity : 105 dB; Impedance: 32 ohms; Type : Circumaural; Cord Length : 2.15 metre

TEST CENTRE RATINGS (All Scores out of 10)

Features	5.5
Performance	6.0
Build Quality	7.0
Value for money	6.5

WE SAY

6.0

At ₹1,100, these headphones are priced quite reasonably. Although its got an excellent build quality we felt that the sound quality could have been better in general and sound separation in particular. The mids were quite good. Bass response was decent.

SPEAKERS

Zebronics ZEB Station
Price: ₹2,850

SPECIFICATIONS

Dimensions: 175 x 123 x 260 mm; HDD sizes supported: 3.5-inch SATA; Interface: USB 2.0, eSATA

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.0
Performance	5.0
Build Quality	6.0
Value for money	5.0

WE SAY

5.5

At ₹2,850 we felt that Zeb Station is overpriced as it does not really provide the best quality sound. Also the absence of track names despite having a scrolling LED display may not go down well if you have a huge collection of songs in your USB drive.

SOFTWARE

CLINCK™ CYBER CAFE MANAGER

Clink Cybercafe Manager
Price : Free

SPECIFICATIONS

Utilities Provided : Google Search Bar, Quick Links for Internet Sites, Clean and easily accessible Desktop, Content on Cricket, Movies, News

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.0
Performance	6.0
Ease of use	6.0
Value for money	8.0

WE SAY

6.5

The Clink cybercafe manager is a great tool for cybercafes, who also provide other services like printing, scanning or copying. It helps you to keep a tab of inventory thanks to its Products and Services menu. You can customise the security settings.

ROUTER

Linksys E2000
Price: ₹7,999

SPECIFICATIONS

Specifications : WiFi: 802.11n, Dualband: Yes, Ethernet ports: 4 (Gigabit), USB port: 1

TEST CENTRE RATINGS (All Scores out of 10)

Features	7.0
Performance	7.0
Build Quality	7.5
Value for money	6.0

WE SAY

7.0

The Linksys E2000 is a smaller device but somewhat similar to the E3000 model. It's a whole ₹3,000 cheaper but it doesn't come with the simultaneous dual-band feature or the USB connectivity option. It's still a slightly expensive router.

GAMING CONSOLES

HCL K-28
Price: ₹1,890

SPECIFICATIONS

2.4-inch TFT Screen, 16-bit Graphics, Supports Rechargeable Batteries, 28 GamesTV Out

TEST CENTRE RATINGS (All Scores out of 10)

Features	5.5
Performance	6.5
Build Quality	5.0
Value for money	6.5

WE SAY

6.0

For ₹1890, the HCL ME K28 is a good portable gaming device. Although the number of games that can be played on it is limited as of now which may ruin the fun for some. The TV out feature allows you to play games on a PAL TV, which is an interesting touch.

HCL ME Z-15
Price: ₹4,990

SPECIFICATIONS

2.8 inch TFT display, 320×240 pixel resolution, Movie format support : RM/RMVB, AVI, ASF, FLV, 3GP

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.5
Performance	6.5
Build Quality	6.5
Value for money	5.5

WE SAY

6.5

For ₹4990, this handheld device is a little pricey. The audio quality is not up to the mark but the display compensates for the loss. There is no way of adjusting the equalizer for fine tuning of sound output. Video playback is excellent and supports most of the modern video formats.

CELLPHONE

MCC Jumbo i9
Price: ₹2,599

SPECIFICATIONS

Display: 1.8-inch TFT; Memory: microSD; Battery: 1800mAh, Standby-time: up to 1080 hours

TEST CENTRE RATINGS (All Scores out of 10)

Features	6.5
Performance	6.0
Ease of use	5.0
Value for money	6.0

WE SAY

6.0

The MCC Jumbo i9 is a feature-rich dual-SIM budget cellphone, with its long battery life being the top selling point. Although it does not impress with its average performance, it still packs a punch within this price category. At ₹2,599, it gives you good value for money.

Pine Prince
Price: ₹1,795

SPECIFICATIONS

Display: 1.8-inch TFT, Resolution: 128 x 160, Colours: 65K; Memory: microSD expandable up to 4GB

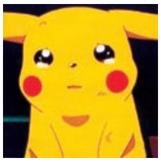
TEST CENTRE RATINGS (All Scores out of 10)

Features	5.5
Performance	6.0
Ease of use	6.5
Value for money	6.0

WE SAY

6.0

The Pine prince is just another dual-SIM budget cellphone, that is rich on basic features and average on performance. If you are looking for a budget dual-SIM phone sans camera and connectivity, then this one is for you. At a price of ₹1,795, this is a decent buy.



Poke-man dead
Takeshi Shudo,Writer/Creator of Pokemon, the Japanese cartoon series, passes away at 61

Twitter down?
Twitter's CEO, Evan Williams, steps down to concentrate on product strategy

Who do you trust?

This month, we conclude Icons of Trust 2010. For the remaining categories, read Part 1 in last month's issue...

Team Digit
With valuable feedback from our readers
readersletter@thinkdigit.com

Desktop PC

Whether it be printers, wireless devices, or storage, inevitably it's a desktop or a notebook they are being connected to / used with. Desktop penetration in India is low, but compared to what it was five years back we've come a long way. One of the most important things to remember when talking about a desktop is that, it's a combination of components with added after sales support and warranties from a single brand.

Market trends

Desktops have continued their downward spiral in terms of pricing. Desktops trends are pretty much tied with hardware trends. This year has also seen Intel's entry level Core i5 and Core i3 processors pervade desktops. This has brought the goodness of greater processing power to the masses. Today, a desktop is largely an affordable commodity, and with entry-level desktops starting at ₹12,000, there's no reason why you cannot afford one and introduce yourself and your loved ones to the world of information technology and progress.

Perceptions from our survey

1. Assembled computers have gained repute. When collectively viewed as a brand, assembled PCs garner a lot of trust and they are just a few points behind Dell – the leader in this regard. Incidentally, Apple blows HP out of the water when it comes to consumer opinions on trust. 35 per cent people trust Apple over HP and Dell.
2. Apple desktops were also voted the most rugged. Dell and assembled desktops take second and third spots.
3. Dell was voted the most innovative trailed closely by Apple. However, Apple was voted the most technologically advanced with an additional eight per cent people strongly agreeing with this.
4. Apple makes stylish products – we have to agree, and so does our audience. In fact, Apple garners the most votes under "strongly agree". Dell is a close second, followed by HP/Compaq.
5. When talking about marker availability, HP/Compaq wins hands down among the brands. Only assembled desktops were voted as being easier to buy than HP. We feel this is due to HPs strong presence in the distribution channel, where as a larger brand leveraging of ones product is possible. Strong presence in the retail segment is also a plus. Dell is a distant third here.
6. Our readers feel Dell and Apple are nearly equally credible, with a points advantage going to Dell. HP/ Compaq garners the same amount of credibility as assembled PCs – a good showing for assembled systems that have traditionally lost out on the factor. Lenovo is a distant fifth in this comparison.
7. More HP and Dell users are satisfied with their desktops than any other brand or assembled computers. Talk about loyalty, and Dell is number one, followed by Apple.
8. Surprisingly, (and we're pleased

HOW WE TRUSTED

How is trust calculated?

All respondents are asked to complete a rather long and comprehensive questionnaire, which aims at arriving at scores for five parameters.

Awareness: Purchases depend a lot on your awareness and the market's awareness of a brand. To get figures for awareness, we asked the respondents some questions to see how many knew of the brands in this segment. This is again sub-divided into first, unaided recall, such as, "Which is the first brand that comes to mind", and "What other brands are you aware of"; later, we provided people with a list to measure aided recall.

Credibility: Under this, questions were asked to gauge what respondents felt about the quality, durability, technological advancement, design, innovativeness, etc., of each brand. This is by far the biggest contributor to the overall trust index, weighing in at 40 per cent.

Satisfaction: As owners of a brand's products, how satisfied you are with their products is one of the key factors that influence how much you trust the brand. In this regard, we questioned the respondents on general satisfaction, information avalable on it, after-sales support etc. This was the second biggest factor in determining overall trust.

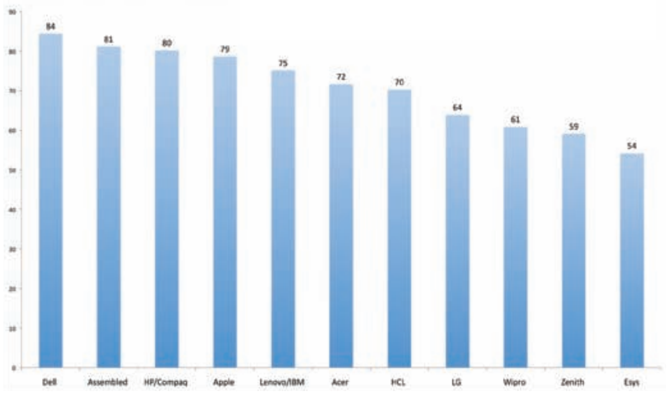
Loyalty: A brand's ability to create fanboys speaks a lot. To ascertain the loyalty that respondents held for brands, we asked them a series of questions that ascertained whether they would buy another product from the same brand. We also gauged how eager the respondents were to recommend products from this brand to friends and relatives.

Cost of ownership: There's expenditure associated with products even after purchase for servicing and repair, which may or may not fall under the warranty period. To ascertain this, we asked the respondents a series of questions to determine how much they had spent on a brand after purchase. This factors in the warranty, repair costs, upgrading (if any), etc. We also asked which brands respondents felt were cheaper to own.

Mayor of outer space
A NASA astronaut has become the first person to check in to Foursquare from outer space. Pointless? Yes. Fun? Totally

Rails for zombies
Learn Ruby and Rails from the comfort of your browser with Rails for Zombies.
http://railsforzombies.org/

to see this), assembled PCs have the highest score when it comes to index of ownership, this covers satisfaction of use, and costs involved with maintenance. This is heartening for those who believe in assembled desktops, and it's clear that the costs including maintenance, associated with assembling a PC are lower, or rather, our readers perceive it to be so.


Trust index - Desktop PC

9. Dell has extended their lead ever so slightly over HP/Compaq over last year. Assembled desktops have also built up a lead on everyone else, and they're pretty close to the two leaders. Lenovo has lost ground, and Apple's lead has grown enough for them to overtake Lenovo and take the fourth position.

The most trusted

So who do our readers trust when it comes to manufacturers of desktop PCs, and brands in general? Dell has become almost a household name in this country, and in a relatively short period of time.

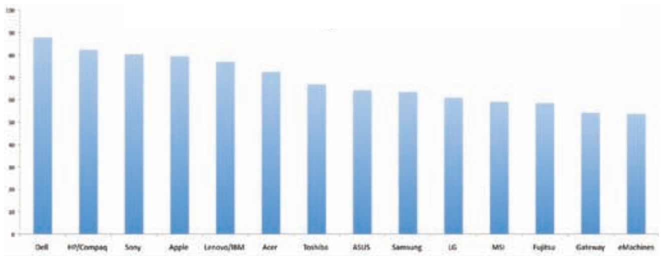
And before you stand up and protest, where was Dell five years ago? Most people bought Dell systems from abroad and imported them here. Dell leads even in the notebook segment, and this is testament to some really smart marketing, and some really sweet products. HP/Compaq is a veritable giant in India, (globally too), and they're not going to give up the second spot without a fight. A huge marketing outlay, and a well established distribution network has helped them retain the number two spot. The third spot is occupied collectively by small vendors – the assembled desktops leave other brands like Lenovo, Acer and HCL in the dust.

Laptops and netbooks

With the exception of cellphones, no other consumer electronics device garners as much attention and interest as a notebook. Notebooks have become specialised pieces of equipment. Just visit a showroom, and you'll see what we're talking about. They come in all sizes, configurations and are intended for specific, albeit different purposes. Even the latest darlings, i.e. netbooks are basically no frills notebooks with lower performance components, and a smaller, cheaper-to-build chassis. From the 18.6-inch monsters to the ultra compact 12.1-inch powerhouses, there is a huge user base for notebooks. And there is a huge variety in brands too, as well as the products they offer. No wonder then, that our tech community had so much to say.

Market Trends

The revolution of netbooks has come and gone. Netbooks are no longer a new product line, but they continue to gather a fan base. And with good reason, prices have fallen slightly, and more and more vendors are offering additional goodies like 3G SIM card support, a better finish and keypads, and dual core Atom processors. Windows 7 is also lighter than Vista on system resources, and with 2 GB inside your netbook, you can enjoy a very nice computing experience.


Trust index - Laptops and Notebook

Meanwhile, we've seen the advent of Core i5/i7 processors inside notebooks. DX11 GPUs have brought about a shot in the arm to gaming notebooks. We're steadily seeing components get better, even as the market is splitting into two distinct parts – those who want a desktop replacement, and those who want portability.

Perceptions from our survey

1. Dell and HP (in that order) is what is recalled when we ask them impromptu to blurt out the first notebook brand that comes to mind. Kudos to Dell, they don't even have a very strong retail presence in India, and most of the recall is on the basis of reputation, word of mouth, and of course advertisements. HP is second here, while Sony is a distant third. Acer is fourth. The rest of the vendors have very small showings. Surprising that Apple got left out.
2. Who do you trust? Dell is the answer. HP and Sony vie for third spot. Wait a minute, who's second? Apple surprises us garnering enough votes to slingshot them to second place.
3. When talking about quality, Apple overtakes Dell. We're surprised too. But evidently, Apple is perceived as a costly, although very solid and long lasting. Could it be all that aluminium is being perceived as being very solid? Although, Macbooks reportedly fail less often than Windows-based notebooks, we feel Apple's campaign to use metal paid off here. If it's perceived

as being solid, it won't break down often. Dell and Apple take the first and second spot in terms of reliability.

4. Apple notebooks are also considered more technologically advanced. We feel the design and sleekness has a role to play here. Apples magical trackpad might also play a role, since it supports effortless gestures and such that other notebooks do not. Dell gets second spot here, and interestingly Sony overtakes with HP. HP notebooks are considered workhorses, and workhorses cannot be technologically advanced right?
5. Kudos to Apple and Sony for aiming to be perceived as a stylish lifestyle brand. Most of our readers strongly agree that these two brands are the most stylish in terms of notebook design. Dell comes third, HP comes fourth, with Lenovo coming in fifth.
6. Dell is perceived as being the most easy to use notebook, with HP/Compaq coming in second place. Sony is third, Lenovo is fourth.
7. When it comes to availability, HP is voted as the most accessible brand. This makes sense for they have a lot of stores, dealers, and HPs distribution channel is rumoured to be the strongest.
8. Dell has the strongest after sales support system according to a majority of our readers. Not only are queries resolved sooner, their staff is also the most knowledgeable, and repairs are performed the quickest. We feel this is a strong reason for why there is so much trust floating around for Dell.
9. No surprise then, that Dell also has the most faithful consumer base. More people praise their notebooks, and recommend Dell to others. Finally, Dell is also thought to be the lightest to maintain, and associated with the lowest cost of ownership.

The most trusted

Based on collective feedback, Dell was found to be the most trusted brand, with leads in every sphere, especially a whopping lead when it comes to awareness. HP/Compaq comes in second, trailing Dell by some 6 per cent overall. HP has not been very aggressive this year, and this is a trend we saw last year as well, although Dell's lead has grown by 1 per cent over last year. Sony trails HP/Compaq by two points, whereas last year these two were at par, although to be honest, Sony has not lost any points from last year. Although we're only interested in the top three, it bears mention that Apple has demolished Lenovo, whom they trailed last year, and now trails Sony by a single point, we're seeing a lot of new Macbooks in various avatars and this could well be the reason.

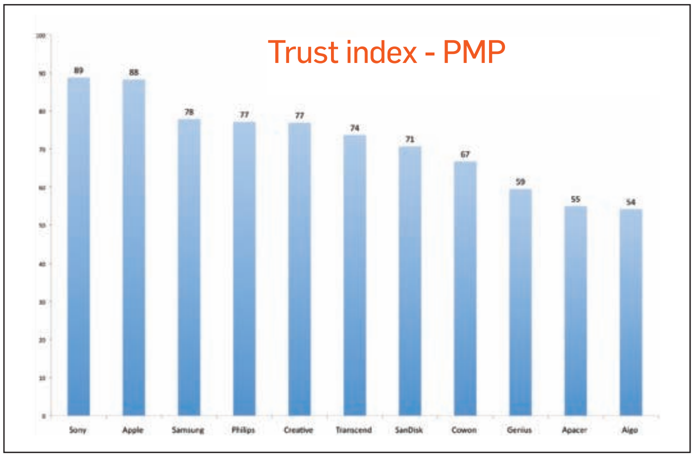
PMP (MP3) players

PMPs, or MP3 players as they're commonly called are the de facto choice of entertainment for those on the go. Imagine this, you're aboard a crowded bus, en route work. A PMP provides you the means to escape from the daily grind around you and blots out the noise, if not the pollution. However, for many, this is sufficient to keep them fresh on their way to office, and if freshness, according to you, is a state of mind, you owe it to yourself to try out a PMP. Judging from the steep hike in their sales, a lot of urbanites are jumping on this bandwagon.

Market Trends

PMPs are facing very tough competition from cellphones. These are now becoming increasingly multimedia-oriented, and previously, while a PMP could do movies, games and PIM functions other than music, the latest cellphones with their larger touch-screens are in certain cases, just as multimedia oriented. There is also a convenience issue. For why would someone travel with both a cellphone (or two), in addition to a PMP, if just one device could suffice? The corollary to this is, that no matter how converged technology makes these gadgets, there are still dedicated portable multimedia devices that can provide a higher level of entertainment than a similarly priced cellphone.

However, there is no strict rule for this, and whether or not a PMP, remains a subjective question. After all, do you spend ₹40,000 on a 32 GB iPhone, or do you buy a cheaper ₹10,000 cellphone and a 32 GB iPod Touch for ₹20,000, saving ₹10,000 in the bargain?


Trust index - PMP

Perceptions from our survey

1. What are .the two names that come to mind when we say PMP? Apple? Sony? Well, our readers who participated in this survey thought so too! 19 out of 20 people will say Apple, while 15 will say Sony. The other brands hardly feature. We feel this has a lot to do with the perception these two brands have built. Today, the phrase "iPod" is actually used by 90 per cent of shopkeepers to denote any PMP, while we know that it is, in fact an Apple trademark. However, this is the market situation, and even Sony's, Cowon's and Creative's are all referred to as "iPods". Sony with their "Walkman" trademark are almost as well known.
2. When we asked readers which brand they trusted, and whose quality was superior, the numbers were overwhelmingly in favour of Apple and Sony, with Apple maintaining a slight lead.
3. Apple's PMPs were also voted as being more technologically advanced, and having a richer feature set. Additionally, people feel that Apple is more innovative, and innovates

MY PHONE
IS OFF
FOR YOU

Phonekerchief
A new product called Phonekerchief is meant to block cell phone reception when you are out on a romantic date

Zuckerberg in animation
After a cameo in Simpsons, Facebook CEO Mark Zuckerberg will be featured in his own cartoon

more often than other brands. Sony takes the number two spot here.

4. Stylish? Apple all the way, with Sony trailing by 9 per cent. Samsung comes in third here, not surprising, given they have some very stylish PMPs.
5. Ease of use? People feel that iPods are complicated. Don't ask us why, but the fact that Apple is perceived to be a lifestyle brand could have something to do with it. Sony wins here.
6. Sony's campaigning for their Walkman players has paid off. Last year they were two and a half times behind Apple, in terms of awareness and this surely hurt their sales, for how can people buy a brand they've not heard of? This year, they're just 8 per cent behind Apple. That's a whopping bit of catching up they've done.
7. Last year, Sony enjoyed a lead in the credibility ratings. This year, Apple has caught up to them, and both brands have tied. We feel the newer iPods being cheaper has fed their adoption rate, and this has lead to an increase in credibility i.e. simply more people bought Apple PMPs than last year.
8. More people are satisfied with their Sony Walkmans, than Apple users with their iPods. This must surely be disturbing for people, and we feel it's largely because of the hype surrounding Apple PMPs. A lot of people buy them, and use them and go "they're good, but they're not that good". The corollary being expect too much from a product, and you're sure to be dissatisfied. Yes, we made that up!
9. Sony has gained trust over Apple, and surpasses them by a point. Last year Apple led by a point. We're talking about overall trust, and there's a fight brewing here folks. Samsung quietly slips into the number three spot, overtaking Philips and Creative – two companies that we haven't seen many PMPs from in the last year. Out of sight, out of mind?

The most trusted

Sony steals the show here, no doubt some very good models and a better brand recall has helped them. Apple occupies the number two position. Samsung is at number three. Philips and Creative tie for the fourth and fifth spot.

Hard Drives

Amidst the glamour of SSDs and flash storage, we have these, the archaic stalwarts. Comparing a HDD to an SSD is akin to a sports car to a sedan. However, speed doesn't come cheap. And a sedan might be easier to live with in the long run. Back to hard drives. They're the cost-to-gigabyte kings, and SSDs can only dream of the value that a hard drive can provide. Hard drives haven't gotten significantly faster, although the latest generation are speedier than previous one. However, storage is on the increase, and of course hybrid hard drives (ones that use flash and magnetic storage) are hiding in the wings.

Market Trends

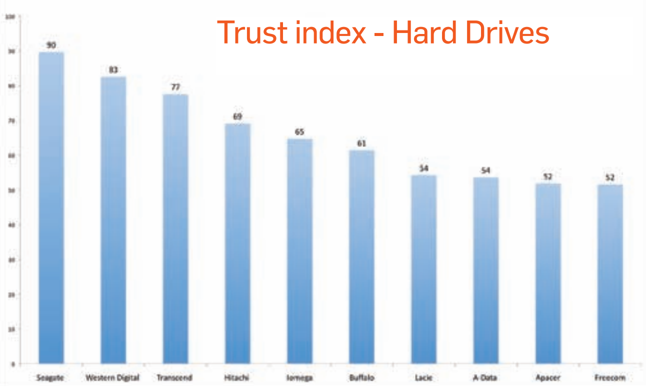
Flash has gotten a bit cheaper. So what? Hard drives have become even more so. Imagine, you can buy a reasonably fast 1.5 terabyte hard drive for merely Rs. 4,500. And a two-terabyte drive for around Rs. 6,500. Now that's a lot of storage. And people are demanding more. We're seeing a trend where people are opting for multiple hard drives. Buy one, fill it up, and then purchase another, seems to be the ethos and we love it. Obviously, there's no end for data gluttony and we've seen three terabyte hard drives enter the market, although at a higher cost. By 2011 they are sure to become more affordable.

Hybrid hard drives are available, but it seems nobody's biting. The higher price is probably the killjoy. We've also seen brands clearly distinguish between performance and power saving options, with WD creating a Black, Blue and Green series, effectively doing away with unnecessary model numbers.

Notebook hard drives have also received a shot in the arm in terms of storage. It seemed 500 GB was a ceiling for quite a while, but now, 750 GB and one terabyte drives are available in the 2.5-inch form factor. They're faster than 500 GB drives, owing to higher areal densities, and their prices have gone through one revision. With another, we feel they'll be worth the upgrade. Similarly, external hard drives have also become more voluminous. At the moment, the speed race seems to be largely defunct. If you want blazing performance, you'll go SSD. However, we've seen some SAS drives typically seen in server and workstation setups being marketed for uber desktops. Although rare, and expensive, these 12,000 and 15,000 rpm drives do pack a punch.

Perceptions from our survey

1. One of the most shocking figures was the awareness index. Seagate is 75 per cent ahead of Western Digital. We were surprised too. This belies the fact that many hard drive vendors push Western Digital more, a trend we've seen in market places like Nehru Place (Delhi) and Lamington Road (Mumbai). Evidently, Seagate's reputation of old means that simply more people have heard of the brand. However, both Seagate and WD have better awareness scores this year, when com-



pared to the result of last years survey.

2. Over the top recall of Seagate is excellent. Nearly four times more people will mention Seagate over WD when asked for naming a hard drive brand.
3. When it comes to credibility and trust, people trust Seagate more. Western Digital trails by a good 13 per cent in both parameters. Transcend is a distant third, although note that they are external drive vendors and do not make internal hard drives.
4. Seagate and WD are associated with being the most technologically advanced, with Seagate having a four per cent lead. Their nearest competitor, Hitachi, is light years away.
5. Seagate and WD are also easy to use. Obviously, the more people that adopt a brand, the more use it, and the drives away unnecessary opinions. After all, who heard of a hard drive being hard to use? Unsurprisingly, A-Data is at the bottom of this list. They're a new brand in India, and not many people will have heard of them. In fact, they weren't even on our radar last year.
6. Our readers also felt that Seagate was the easiest brand to get information on, and counter sales people were more informed, and could better impart knowledge about it. WD was second here, and Transcend comes in third.
7. Seagate is also perceived to be cheaper to own. A little less than double the votes went to Seagate over WD for this parameter. Obviously, the trust Seagate has built over the years is still their forte.
8. Seagate's credibility score goes through the roof with WD following closely behind. Both brands have gained a point each over last year, and there's a difference of five per cent between both.

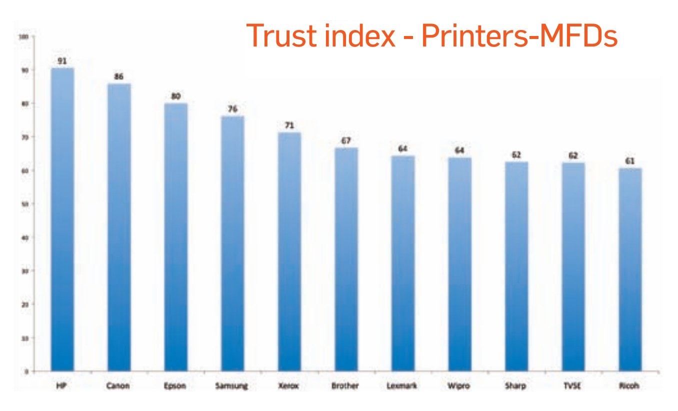
The most trusted

Seagate is the most trusted, followed by WD. Transcend gets third position.

Printers/MFDs

Not the most interesting of categories to consumers, but this is an important market for imaging professionals and corporates.

Aside from the biggest players HP, Canon and Epson, there are also a lot of other brands like Samsung, Xerox, Brother and Wipro that do a lot of business in India. Since most of the business of printers and MFDs is B2B, we consumers see a very small trickle over of products in the market. However, we were interested in our readers' opinions on these peripherals.


Trust index - Printers-MFDs

Market watch

Nothing radically new in terms of technology has happened over the past year. That being said, we see laser printers gradually pervading, what was, formerly inkjet- only usage scenarios. Due to the lower cost per page and higher duty cycles of laser devices, more and more manufacturers are offering affordable options with lower feature sets. Another trend we've seen continue is the increasing acceptance of MFDs. Due to the sheer convenience of having more than one function in a single device, MFDs have been very popular. This saves not only on space and time, but also on cost, and some inkjet MFDs finally make cost sense to a lot of households.

Perceptions from our survey

1. A phenomenal chunk of our readers own HP printers or MFDs, nearly 4.5 times more than the second most owned brand i.e. Canon. No surprise that people feel HP is the most cost effective solution. People also feel HP is the most trustworthy brand. While we don't intend to undermine the validity of the scores, it bears mention that with such a high percentage of people owning an HP device, it's natural that the scores would be slightly skewed in their favour. Of course, the corollary to this is that people must have had a valid reason for purchasing HP in the first place.
2. Interestingly, a good 20 per cent more people believe that HP devices don't breakdown as easily as other brands. Canon is voted as the next most rugged brand. A similar number of people also believe that HP is more innovative with their printing solutions.
3. Compared to last year, Canon seems to have gained some ground on HP when it comes to credibility. Epson has also gained ground, but at a slightly slower rate.
4. Users are more satisfied with the top three brands this year, compared to last year. This is heartening, though we see little change in the other brands. Sharp and Samsung have been the biggest gainers, gaining 7 and 4 per cent respectively in terms of overall consumer satisfaction.
5. HP was also voted as the most responsive to customers needs, followed in equidistant margins by Canon and Epson.
6. It seems sales people at counters need to pass on more knowledge to consumers. Even though HP was the top dog in this arena, overall, lots of work is to be done here, and we feel all brands need to pull up their socks when it comes to education of their over-the-counter sales teams.

The most trusted

HP was voted the most trusted brand this year, maintaining a distance between its nearest rival Canon. Epson stood in third place – pretty much unchanged from last year. d

Rooting for n00bs – Everything you need to know!

An introduction to rooting your Android phone and the almost endless possibilities that go hand in hand with it. An interesting read, even if you don't own an Android phone.

Rudresh Jariwala
rudresh.j@thinkdigit.com

With the Android army gaining momentm at a gargantuan rate, (now 2nd most popular platform in the world), it's hard to ignore the sheer power that the mobile operating system gives the user. If you are new to terminology like "rooting" and "superuser", then you have come to the right place. Through the course of this article you will learn not only what it means to root your phone, but also some of the marvelous feats that can be achieved thanks to the open source nature of Android. We will then venture into the less treaded path of overclocking / underclocking (we like the former) your phone and the different ROM's you can install on your phone to give you your hack fix. So without further ado, lets dive right in!

Just root it!

"Rooting", or gaining root access to your phone is something not many common phone users are familiar with. In fact, if you were to randomly shoot a question about rooting to your friends, chances are that they will have absolutely no idea what you are even talking about and will probably make fun of you for being such a geek (just kidding).

"Rooting your phone" or "getting root" is the process of modifying your operating system to grant you complete control over it. The term "root" has originated in the world of the Linux operating system where user's with root access have no restriction over the type of operations that can be performed. A user with root privileges is called a "superuser" (like an administrator in Windows) and this access is by default restriced on Android phones by manufacturers. By gaining superuser permission, you can circumvent many of the restrictions imposed upon you by the manufacturers and by

Android rooted

SHOP, PAY AND SAVE.

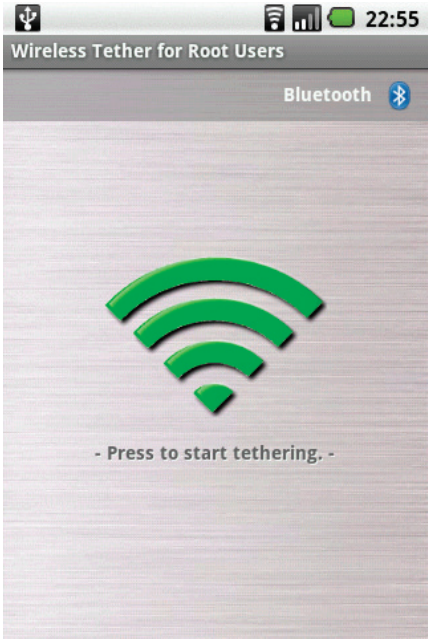
that we mean you can even go ahead an install a custom baked version of Android on your phone to replace the (outdated) one that your phone came with.

Performing a Google search of `[YourPhoneModel] root` will provide you with all the information you need to root your device and it is now very easy to do (there are 1-click root apps like "Universal Androot" available).

The perks

There are a vast number of advantages to rooting your phone

Tether: Rooting your Android phone gives you the ability to use apps such as EasyTether that make your phone a mobile hotspot. What does that mean? Well to put it in lay man's terms, if you have GPRS or better still 3G enabled on your SIM card then your friends around you will be able to detect your phone's interent connectivity as a WiFi hotspot!



Tether on Android

Tip: Upgrading to Android 2.2 will give you native tethering capability witthout the need for any app.

Delete annoying stock apps: If you have annoying applications that came bundled with your phone and would like to get rid of that crapware then root permission is all you will need.

Local backup on SD card: Yes, Android does store your apps and the data associated with it on the cloud (very nifty feature!) but if you would like your phone to come back EXACTLY as is – with icons on your home screens, call logs, SMS messages etc. then perfoming a full backup using software like Titanium Backup will enable you to do so.

Overclock / underclock: Using apps like SetCPU will allow you to speed up your phone's processor when it is in use and slow it down when in sleep mode. You can use software such as Quadrant Standard and Linpack to benchamark your phone and play with the clock speed much like you would do on your computer.

cyanogen(mod)
cyanogenmod.com

CyanogenMod boot screen

Over- overclocked!

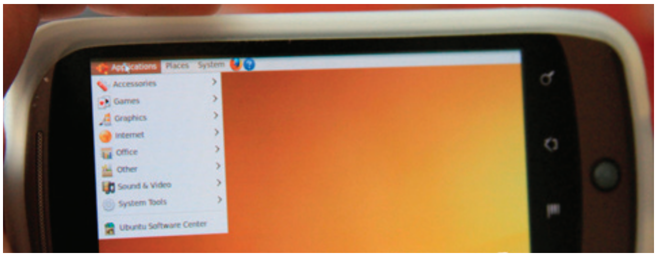
The G2 which is the successor to the first ever Android phone (G1) runs on a stock 800 Mhz processor and has been successfullly overclocked to 1.9 Ghz! That's over a 100% improvement in clock speed and it's completely stable.

Save disk space: I'm sure those of you not on FroYo (Android 2.2) are probably cribbing about not being able to install all the apps you want simply because your phone memory is not enough. Well fret not, for rooting will enable you to install Apps2SD which will give you the ability to move your apps and their cache to the SD card hence making a lot of free space available on your phone's onboard memory. So what are you waiting for? Install away!

Manage your startup: Another very useful app that requires superuser permissions is Startup Manager which is pretty self explanatory in terms of what it does. If speeding up your startup is something you care deeply about then what are you still doing reading this article?!

Improved compatability: There is also the scenario where your phone may be running such an old version of Android (1.6) that you can't install newer apps that have a higher OS requirment and with Gingerbread (2.3) rolling out, you could be pushed even deeper down the hole. In such a case, we recommend flashing a newer version of the OS (or a custom ROM) to gain said compatability.

Custom ROM: Here come the pocket aces. Installing a custom ROM is something many root users like to indulge in. If you want to be up to date on the latest featues and make them available at your disposal, then flashing your ROM with the newest Android version is



Ubuntu running on a Nexus One

digit

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www.52ndindia.com

You might just brick your phone!

WARNING!!!

MUST READ: Installing a custom ROM on your phone does run the risk of potentially bricking it (i.e. your phone could become totally nonfunctional). Though the chances of something like that happening are probably lower than 99 to 1 (just keep your battery charged), we recommend you do your homework before attempting anything, unless you're a fan of very expensive paper weights.

Outdated OS?

The open source advantage of Android is also its biggest problem right now. The fact that the code is made available to all and can be manipulated to your liking is being leveraged by phone manufacturers like Motorola, HTC and the rest in making their own customised user interfaces like the Sense UI designed to give you a "better user experience". In fact, what is happening is that everytime the company launches a new phone, the engineering team is busy porting their UI changes to the new model hence ignoring the other models who are left behind using an older version of Andoird. This "fragmentation" is only an issue because these stubborn manufacturers refuse to budge from the projects they have invested so much in hence leaving the consumer (You and me) using an older and slower version of Android with fewer features. Wake up and smell the coffee! As a consumer you ought to have the right to run the latest iteration of the OS on your phone and not lag behind like the rest of the cattle.

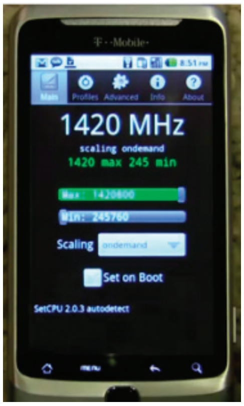
only a few clicks away. No more are you required to hook your phone up to the desktop and drop down to the command line (us early adopters had it harder)!

What's more you ask? Well if you have not already figured it out then this would in effect also help you get rid of the custom UI (read:HTC Sense etc.) if you don't like it.

A Custom ROM is a modded version of the stock operating system and must not be confused with rooting. Rooting involves gaining superuser privileges but installing a custom ROM entails actually flashing the ROM (that's the hardware component that stores your operating system) and replacing what's already on there with what you wish. Installing a custom ROM requires rooting first, but rooting itself is a fairly simple task easily achieved by a few clicks without actually affecting your stock OS in any way.

There are a ton of custom ROMs available for Android and ROMs such as CyanogenMod and MoDaCo are examples of very popular ROMs that people who want more out of their Android smartphones are adopting. They come with a whole host of added features such as AdFree (no more annoying ads!) and ADW Launcher preinsalled. Now we can't really afford to delve deep into the entire list of added features but what we do recommend is you go ahead and do a Google search for `[YourPhoneModel] custom rom` to explore and learn more about porting these wonderful innovations on to your Android handset.

ROM Manager is a great place to start if you want one app bundling your entire backup and custom ROM flashing experience. Here's a link to the wiki: http://goo.gl/OSIez.



SetCPU allows you to overclock

The pitfalls

No OTA:

When FroYo launched, Google made the update available to the Nexus One device OTA (over the air). This means that the phone would download the update when you are in a WiFi zone and simply ask if you would like to update when ready. This would not be possible if you rooted your phone. Then again, it is of almost no consequence to other Android phone users since they have to wait for the phone manufacturer to send out the update!

Warranty voided: Gaining root access to your phone would void your phone warranty. There are again two sides to this coin – firstly, chances are that your limited warranty period has already expired and secondly, there is no shortage of phone repair shops in case something does go wrong with the phone. Check out Shekhar Kapoor's site here for a very interesting read: http://goo.gl/cfcH6.

Pricey paperweight: Every site you visit to read about installing a custom ROM will give you a large warning about the chances of bricking your device and though the chances are very very slim, it still is a possibility. Again, we recommend you just keep your battery charged.

It's your call

Now that all the information you need (enlightenment?) has been made available to you, we urge you to weigh your priorities and take a call (not make one). It's vital that you understand the horizons that open up to you when you choose to go down the rooting lane and the many perks that come with it. We leave you with a quote from J K Rowling - "Never trust anuthing that can think for itself if you can't see where it keeps it's brain". d

WiFi bad for trees?
Study conducted by Wageningen University , Netherlands shows that WiFi radition is actually bad for trees, read more on http://bit.ly/aZdSnd

Faster Tabbing
Next gen Samsung Galaxy Tab touted to feature a Dual-Core CPU, Quad Core GPU

PHILIPS
PHILIPS
PHILIPS
Disc

Philips Soundsphere Mci900

The Mci900, a set of hi-fi speakers, is meant for the discerning audiophile and is based on the Streamium technology that lets you store, stream and play music wirelessly. Philips' award winning Soundsphere technology is integrated in the Mci900. With a touchscreen interface, and 160 GB of storage space to store all your music, it can also play internet radio. Priced at $1,445, this hi-fi audio set is available in silver and black editions.

Ultrasone Edition 8

The thing with Ultrasone headphones is that by the time their new series is out the earlier versions are completely sold out, so was the case with Editions 9 and 7. Currently the Edition 8 is available for purchase for $1499. The Edition 8 is handmade in Germany and is built around Ultrasone's patented S-Logic sound technology, which is Natural Surround Sound that pushes sound around your head giving you a feel that the sound is coming from the other side of the room. These are certainly not your everyday noise isolating pair of headphones.

Cruden's Hexatech Racing Simulator

Cruden's Hexatech is a state-of-the-art professional grade racing simulator that gives you a real world feel of driving on an actual race track. Among its vast feature set, it houses three 42-inch LCD monitors, G force simulation, seat belt tensioners and loads of steering feedback. It's built to last 10-15 years and can accommodate upto three people. Yours, only for $2,00,000.

Geneva Labs Home theatre

The guys at Geneva Labs have created something truly unique, giving you the best of both worlds – an elegant home furniture decked up with a 7-channel home theatre. It features seven speakers blasting at 700 W using a digital amplifier including a booming 12-inch subwoofer. The equipment is ready to use as it requires almost no installation and fixing of hundreds of cables. Just place your LCD on top and it's good to go. There's a dock to connect your iPod as well. Available in white and black, it's priced at $3,999.

Bang & Olufsen BeoCenter 2

A slight flick on the control pad and the Beo Center 2 spreads out its wings, with host of features like CD/DVD playback, FM tuner and DAB receiver. It displays info in crisp white text which automatically adjusts its contrast with change in surrounding light giving the user optimum viewing experience. The BeoCenter 2 is virtually wire free as most of the cables are hidden away neatly. Pop in a movie and it activates all the speakers in surround sound or engages just the left and right speakers when playing audio. Make it a part of your living room by shelling out $ 4571.

Beovision 10

The latest offering form Bang & Olufsen is a 32-inch edge lit HD LED TV. The cool part of this TV is that it's super thin, with almost razor sharp edges and will blend in perfectly with the other art décor in your living room. Staying true to its tradition of making ultra expensive home equipments, Bang & Olufsen has priced this set between $4,707 to $5,500 depending on your choice of accessories. The lower part of the TV is magnetically interchangeable with a choice of five different colours.

Scorpion 6

If you've been looking for a cheaper variant to an F1 car, here's the deal. The Scorpion P6 is the closest you can get to having your own F1 racing car. The twist to this speeding monster is that instead of four wheels, it sports three and does 96 kmph in a mere 3.5 seconds! It comes with other nick-knacks such as leather upholstery and an F1-style nose. Tame this F1 prodigy for $29,000; and yeah, it's street legal. It's top speed is 273 kmph with an engine displacement of 600cc.

Random PC reboots, widgets and modems not connecting!

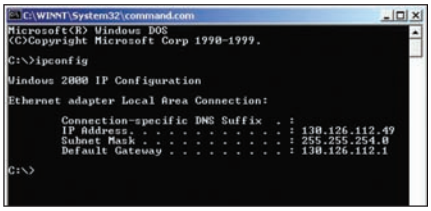
Digit QnA brings sanity to the chaos

Unable to access modem at 192.168.1.1

I have a BSNL broadband connection with a ZTE modem. I'm able to surf the internet for the past two weeks. I'm unable to access the router configuration site 192.168.1.1. I need to change my PPPoE connection to bridge, and for that I need to access the configuration site, but it's showing errors now.

Mridul

Check if the gateway for your modem is still set as `192.168.1.1`. To check details of your LAN card, press `[Windows] + [R]`, and then type `cmd` to start the command prompt. Type `IPCONFIG`, and press `[Enter]`. Check the gateway IP, and then try accessing it instead of `192.168.1.1`. If the IP is still `192.168.1.1`, then there might be some problem. Call up BSNL and ask them to rectify the problem, as it could have been done on purpose from their end. If you are familiar with all the ISP settings, then you can 'hard reset' all the settings, but will absolutely have to login to the web interface to get online then. If it happens to be some hardware issue and you still can't login, then you will have no internet connectivity.



```
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-1999.

C:\>ipconfig

Windows 2000 IP Configuration

Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : 130.126.112.49
        Subnet Mask . . . . . . . . . . . : 255.255.254.0
        Default Gateway . . . . . . . . . : 130.126.112.1

C:\>
```

The IPCONFIG is an easy way to find your gateway IP address

Multiple PC problems

My PC configuration is:
Intel(R) Pentium(R) 4 CPU 2.41 GHz, Gigabyte 8I8 45GVM-RZ motherboard, 1.24 GB RAM, 400 (80+160+160 external) GB hard disk, Windows XP Professional as OS. My problems are:

1. My PC can't play HD videos. Earlier, it used to play VLC player, but now it doesn't.
2. I got an Airtel Broadband 512kbps internet connection. After installing the connection, my PC has become slow. I had received Airtel PC Secure as an anti-virus with the package. Is the anti-virus the cause of problem?
3. I have a Nokia phone. Along with this, I use Nokia PC suite and Ovi Suite to connect to my PC. The problem is that if I don't use any of the above software for at least two days, then they get corrupt. It shows the error "No connection was found," due to which I have to reinstall it again. The problem is for both Nokia PC Suite And Ovi Suite.

Piyuz

Your system configuration is really outdated and new codecs and players have higher system requirements for playing back HD content well. If you've installed an antivirus, then it might be taking some resources that would normally be available to your media player. Anti-viruses do tend to slow down PCs. On older configurations such as yours, the hit on performance will be more than on a reasonably new configuration. You need to upgrade your system. The internet connectivity problem is odd. Try downloading the latest update of the Nokia PC suite.

PC restarting randomly

My computer is an assembled one. It's configuration is as follows:
Motherboard: ASUS P5B-VM 965 chipset, DVD-RW Sony DRU-170C, RAM Symtonex 2GB DDR2 667MHz and KUK 1GB DDR2 667MHz, CPU Intel Core2duo-4400, Powerbox Navtech 450W, Monitor 19 inch LCD, Speakers Creative 2.1. I want to know whether I can use DDR3 and DDR5 RAM and a graphics card with my motherboard or not? Currently, my PC restarts when I open a game on my PC, or when I run two or more applications. Sometimes, it restarts even before start up of Windows. When I take out any one RAM stick from the motherboard, this restarting problem doesn't happen. Is my RAM or hardware faulty?

Sohail Khan

You can only use DDR2 memory on your motherboard. You can use graphics cards with any kind of memory though. Using different kinds of RAM on a system is a bad idea. There are compatibility issues and could be the cause of the random reboots. Switch to a single brand and model of memory. A BIOS firmware update of your motherboard may fix things, but it's a somewhat risky process and isn't a guaranteed fix.

Problem using MS office suite

I was using Microsoft Office 2010 Beta that has now expired. Now I can't open my saved documents. However, I have genuine Microsoft Office 2007 already installed on my computer. Can I revert to Office 2007 to open the documents as I don't want to buy the new version.Would uninstalling the beta version help? Apart

Microsoft Download Center
Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats
Office
Brief Description
On this page
Quick Details
Overview
System Requirements
Instructions
Quick Details
Overview

The compatibility pack for older MS Office versions is freely available on Microsoft's site from switching to different office suites is there any other way?

Rahul Roy

Install the free Microsoft Office compatibility pack from Microsoft's site (http://bit.ly/aVUK8) and you should be able to open Office 2010 files in older versions. You might have to install essential patches recommended by Microsoft for your version of Office.

Flash drive doesn't work anymore

I cannot access my Sandisk Cruzer Micro 4GB pendrive. Whenever I connect it to any computer, a dialog box opens and asks for formatting that it cannot complete. I tried many antiviruses but none of them can detect the problem.

Rithul

Try connecting the drive to a different system and format it there. If it gives you the same problem, then it might be faulty. If the drive is within warranty period, replace it.

Drivers for new OS upgrade

I have an HP Pavilion dv6500-powered by 64*2 mobile Turion processor and 960 MB RAM. The OS is Windows Vista Home Premium. My laptop is slower than a snail. I want to format it, but don't have the necessary driver CD. Can I format it using XP or Windows 7 without needing any driver CDs? If there's no other way, where can I find / download those driver CDs? Also, how can I access my webcam?

Neetesh Poudel

Some of the components on your laptop will work without drivers, but you're bound to run into problems with your video adapter, Wi-Fi, Bluetooth and software for hotkey functions. All the necessary drivers should be available on HP's web site. Contact the HP service centre to help you with drivers.

Core i7 system is not fast enough

My configuration is as follows: Processor: Core i7 950, Motherboard: Asus Sabertooth x58, RAM: 6GB Transcend 133FSB (triple channel), Graphics card: Zotac GTX 460 1 GB, SMPS: Zebronics Pro 600W, Cabinet: CoolerMaster cm690 Advance. Although I run Windows 7 (64 bit), my system seems to be very slow. Is there any settings that need to be changed or edited?

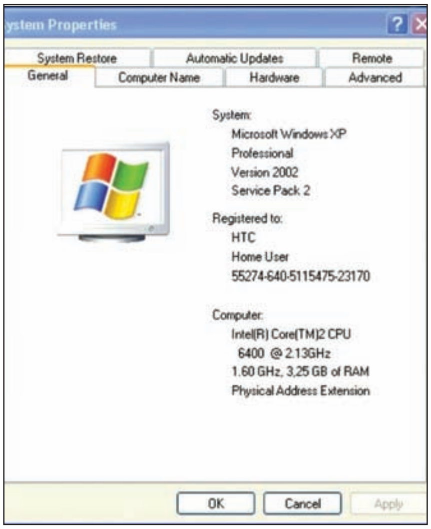
Saajan

If you haven't installed any drivers, you will see a performance hit. I recommend updating to the latest drivers for the Intel X58 chipset and the NVIDIA GeForce GTX460.

Worth adding more than 2 GB of RAM?

I am not familiar with some terms such as Firewire and eSATA. What do they mean? I want to add a 2GB DDR2 stick to my computer to enjoy more speed and better performance. Currently, I have Zion 2x2GB DDR2 800 MHz intalled on my computer running Windows 7 Home Basic 32 bit. When I right-click on My Computer, it shows 4 GB intalled, but only 3.25 GB as usable. When I referred the motherboard manual, I learnt that to enjoy full of 4GB or more I should install Windows 7 64 bit. If I want to add 2 GB RAM, should it be of the same clock frequency? Can I install a 1,066/1,333 MHz stick? Should it be of the same company? Can I get full juice from my computer when I have a total of 6 GB? Will there be any performance boost or just a waste of money?
My system configuration:
AMD Athlon II X4 630
ASUS M4A785D-M PRO motherboard
Zion 2X2 GB DDR2 800 MHz
Seagate 500 GB 7500.12

Pratik Ranjan Bhuyan



System:
Microsoft Windows XP
Professional
Version 2002
Service Pack 2

Registered to:
HTC
Home User
55274-640-5115475-23170

Computer:
Intel(R) Core(TM)2 CPU
6400 @ 2.13GHz
1.60 GHz, 3.25 GB of RAM
Physical Address Extension

32-bit operating systems cannot utilize more than 3.25 GB of memory

Firewire and eSATA are, in a way, quite similar to USB. They are data transfer mediums to connect external devices. eSATA is primarily used for hard drives where as Firewire is used for drives as well as some other devices such as high-end cameras. Firewire and eSATA aren't as popular as USB.

Increasing the total memory more than 4 GB isn't going to add to your system performance. Thirty two-bit operating systems cannot use more than 3.25 GB or so of memory. To be able to use the entire 4 GB, you need to upgrade to a 64-bit operating system. Also, check the memory remapping feature in the BIOS. While upgrading memory, try and buy the same model and make of memory to avoid compatibility issues.

Weather widget won't update data

I have installed Vista rain bar 4.3, but the weather gadget doesn't response. What can I do? I use Windows XP SP2.

Pankaj Kumar

The weather widget gets its information from the internet. If you aren't connected to the web at all times, it won't be able to update. If you're using a firewall, allow access to the widget.

SCSI/RAID host controller errors

I've been facing a strange problem for the past five days. Whenever I switch on my computer, a message pops up saying "Welcome to the found new hardware wizard. This wizard helps you install software for SCSI/RAID host controller." When I click "install the software automatically," it says "an error occurred during the installation of the device. The specific service does not exist as an installed service." What is SCSI/RAID host controller? How can I install it on my computer?

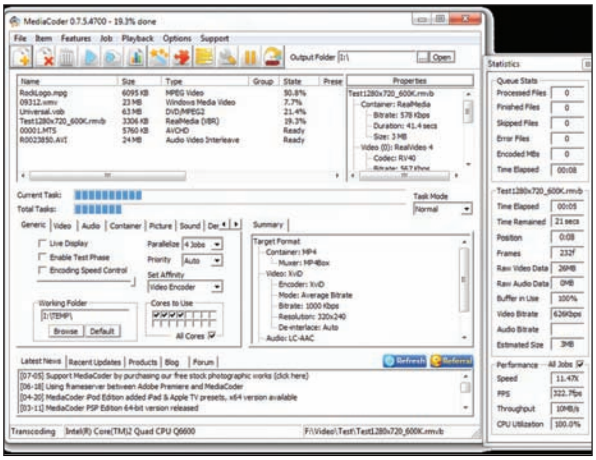
Susanta Mandal

The SCSI/RAID chips on your motherboard require drivers to operate. If you aren't using a SCSI or RAID setup, the feature can be disabled from the BIOS. Enter the BIOS setup during bootup, and turn off the feature. Save and reboot. This should stop the message from showing up. If you're using a SCSI or RAID drive setup, check the motherboard driver disc for drivers.

PMP won't play encoded videos

I have a Sony Digital Media Player NWZ-E444 that is supposed to play only MP4 video format. I download videos from YouTube and use video converters to convert them to MP4. After converting, I transfer them to the walkman using the software provided by Sony. After I switch on the walkman, go to videos and press Play, the following message appears: "Video format not supported." I reinstalled the video converter and transfer software, but it doesn't help. I face this problem only with a few videos. Is there any way to make the player play other video formats?

Pranav Kumar



Mediacoder is a free transcoder that can be used to convert videos from one format to another

There could be a number of reasons for the problem you're facing. MP4 is just a container and the codec used to encode the video can vary. Not all encoders accept the commonly distributed video formats properly. If this is the case, then the video may not be getting encoded properly. You can also try other transcoders such as Mediacoder (www.mediacoderhq.com) to try and encode to MP4, but using different codecs such as Xvid and x264. Find the setting that works best for your PMP, and continue using it for all future encoding tasks.

Blinking line of light on display

I have an HP Pavilion laptop with 4GB RAM, 320 GB hard disk, and a Core 2 Duo processor. My problem is that a line of light blinks on my taskbar. What should I do?

Shrawan Kumar

If the line blinks even when it isn't in Windows, then it might be a damaged panel. Take the laptop to the HP service center to have it looked at.

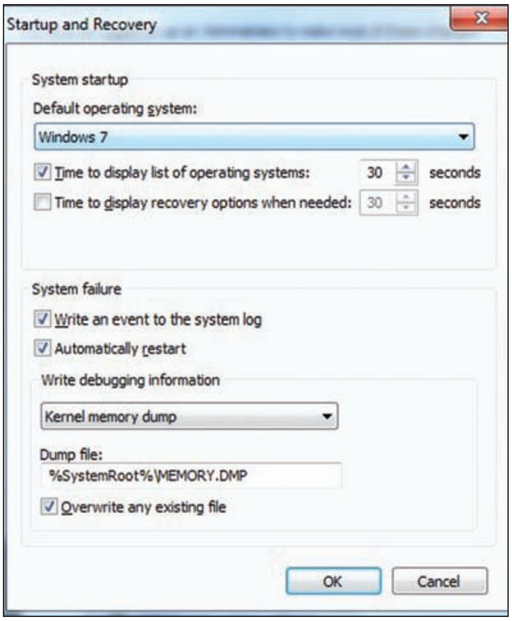
VBS errors on Windows

My PC system configuration is:

Intel dual core E2200@2.2GHz,
Asus P5kPL-CM motherboard, Windows XP SP2
XFX NVIDIA GeForce 8400gs 512 MB,
Dynet 1GB DDR2 RAM 667MHz. My PC doesn't boot up completely. After scanning the hard disk, when the prompt for password appears, it starts rebooting. It boots up perfectly without any problem during the second instance. Also, it shows a "Windows cannot find antivirus.vbs file" message

Gursewak singh

There must be some kind of a virus in your Windows system. The VBS error message is to due to that worm or virus. Fix the virus problem and then check if the rebooting issues continue.



System startup

Default operating system:

Windows 7

☑ Time to display list of operating systems: 30 seconds

☐ Time to display recovery options when needed: 30 seconds

System failure

☑ Write an event to the system log

☑ Automatically restart

Write debugging information

Kernel memory dump

Dump file:

%SystemRoot%\MEMORY.DMP

☑ Overwrite any existing file

The startup and recovery menu allows you to delete and modify entries

Removing boot entries

I have a Compaq Presario SG2044 IL. My system configuration is as follows: Processor: Intel Pentium 4 3.20 GHz RAM: 1 GB, hard disk: Western Digital 80 GB. I use Avast Free Edition. I had Windows XP SP3 and Windows 7 Ultimate Build 7100 installed on my computer. But I didn't like Windows 7 so I formatted the D: partition. During startup, it tells me to choose between Windows XP and Windows 7, although I don't have Windows 7 anymore. How do I get rid of this?

Aishik Saha

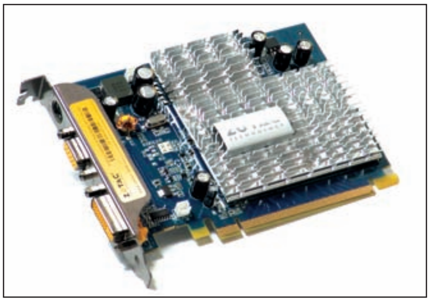
When you format the partition, the boot loader entries for the two operating systems aren't deleted. To remove the entry, go to System in the Windows Control Panel. Then, navigate to Advanced settings and go to Startup and Recovery. Delete the entries for Windows 7, save and reboot.

Any way to speed up a graphics card?

I use an Intel dualcore 2.80 GHz processor, Intel motherboard, 3 GB of RAM, 250GB HDD. I also use ASUS EN8400GS 512MB graphics card. But according to experts, the graphics card I'm using is too slow. I can also feel that when I play games on my Windows 7 64-bit. Is there any way to speed up my graphics card? I like to play *Assassins Creed*, *Prince of Persia*, and *NFS*.

Kesavadev R J

The GeForce 8400GS is a very basic graphics card. Overclocking graphics cards is possible, but the improvement on a card such as the GeForce 8400GS will yield close to no benefit. Upgrading the graphics card is the only real solution if you play a lot of games.



The GeForce 8400GS isn't meant for playing high-end games

DVD drive woes

My system configuration is as follows:
Motherboard: ASUS M4N68T-M
Processor: AMD Phenom2 x2 550
RAM: Strontium 2GB (1,333MHz)
OS: Windows XP SP2
UPS: APC back-UPS RS 550
DVD drive: Sony (SATA), ASUS (IDE)
HDD: Seagate 80GB (IDE)
SMPS: Frontech 350W
Monitor: Samsung SyncMmaster 591s

I first tried Windows 7 that worked properly, but because of limited HDD space, I changed it to Windows XP.

Now when I try to load Windows 7 with the same disk, it shows missing DVD driver messages with the error code 0x80070017. Also, my DVD drives don't autoplay any more. Some times when I put blank disks in to the Sony drive, it shows errors such as "h : is not accessible."

Allen John

The error you're facing is because of a corrupted disc or a faulty drive. Make sure that all the connections to the drive are perfect. If possible, try a different power connector and cable. You can also try the drive on a different PC. If you face the same problem there, it's almost definitely a problem with the drive. You need to purchase a new one.

RAM issues causing startup problems?

My PC configuration is:
Intel i7 - 950 @ 3.06 GHz
Intel Original DX58SO motherboard
Corsair DDR3 RAM (TR3X6G1600C8D)
6GB Kit. 8-8-8-24 1.65V Version 7.1A
WD Black (WD1002FAEX)
Cooler Master 600 W Power supply.
Dual Boot XP x64 and Windows 7 x64.

I've attached the CPU-Z log file for detail reference. I purchased this PC in October.

The dealer installed 4 GB Corsair XMS3 RAM kit for 6 GB RAM. When I asked for the dominator, he provided me new Corsair DDR3 RAM (TR3X6G1600C8D) 6GB Kit, with some extra money.

Ever since this RAM is installed, it hangs with a POST No display. When I switch the system again after power off, it gives an error that says, "The System BIOS has detected unsuccessful POST attemps Possible causes include recent changes to BIOS performance options or recent hardware changes."

Irrespective of whether I select Y or N, it works fine on the next boot. My PC works fine until I shut it down and start again. I searched for the solution online and came to know that this RAM voltage is higher than recommended. Is it right?

If this is the case, what should I do: change the RAM or tweak the motherboard settings to under value voltage (risky for me). Right now I'm using my PC for a long time. Will it be risky for my motherboard or processor? If I have to change my RAM, which one would be better?

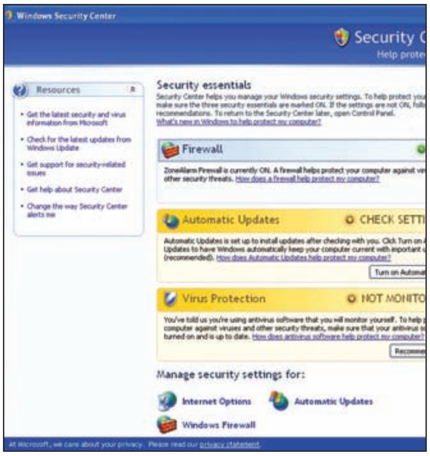
Kiran

Typically, the motherboard should detect all of its parameters and run flawlessly. Reset all CMOS settings to default and see if the problems continue.

Annoying alerts locking up system

When I start my desktop with XP Professional OS, a warning message appears at the lower corner stating "your computer may be at risk. Automatic upgrades are switched off ...". I'm fine with the message, but till it appears it freezes several programs including Windows Explorer. How can I disable this warning message?

Chandra Mohan Vathyam



Windows Security Center
Security C
Help prote
Resources
Get the latest security and virus information from Microsoft
Check for the latest updates from Windows Update
Get support for security-related issues
Get help about Security Center
Change the way Security Center alerts me
Firewall
Automatic Updates
CHECK SETTI
Turn on Automat
Virus Protection
NOT MONITO
Recommen
Manage security settings for:
Internet Options
Automatic Updates
Windows Firewall

Security essentials
Security Center helps you manage your Windows security settings. To help protect you
make sure the three security essentials are marked ON. If the settings are not ON, follo
recommendations. To return to the Security Center later, open Control Panel.
What's new in Windows to help protect my computer?

ZoneAlarm Firewall is currently ON. A firewall helps protect your computer against vi
other security threats. How does a firewall help protect my computer?

Automatic Updates is set up to install updates after checking with you. Click Turn on A
Updates to have Windows automatically keep your computer current with important u
(recommended). How does Automatic Updates help protect my computer?

You've told us you're using antivirus software that you will monitor yourself. To help p
computer against viruses and other security threats, make sure that your antivirus s
turned on and is up to date. How does antivirus software help protect my computer?

At Microsoft, we care about your privacy. Please read our privacy statement.

Disable all the alerts from the Windows Security Center

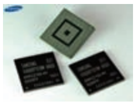
Go to the Windows Security Center in the Control Panel. Click on the Change the way Security Center alerts me link in the left panel. Disable the alerts you don't want to see.

Nonstop BSODs

My PC has been getting numerous BSODs. Making changes to the BIOS configuration and installing Vista haven't helped either. What could the problem be?

Ashish Badoni

If formatting and reinstalling the OS doesn't hepl, the problem might lie with some of the hardware. Try running memory diagonistic tests such as Memtest86+ (www.memtest.org). Also install the latest drivers for your motherboard and graphics cards. Install a software called SpeedFan (www.almico.com/speedfan.php). Look out for rising CPU and graphics card temperatures. If those are spiralling out of control, you should look for problems with the fan.



Incoming!
Samsung is going to be launching their flagship dual core Android Galaxy S early next year running on their Cortex A9 based Orion processors

Mobile developer journey
Here's a really interesting infographic depicting the journey of a mobile apps developer, from development to monetisation : **http://goo.gl/scQcv**

Build your own Android application using Google's App Inventor

Always wanted to create your own Android application? Don't possess any programming knowledge? Consider this your "Android applications for dum-dums" guide and create fully functional apps without a single line of code

Rudresh Jariwala
rudresh.j@thinkdigit.com

It does not matter if you are on Windows, Linux or a Mac. Building Android applications is a task easily performed on any platform (why Apple won't you do the same?). Don't even have an Android phone? No problem! And here's the kicker, you don't even need to know how to write a single line of code! This is the magic that Google's App Inventor makes possible for you and they have tested it on students sixth grade and up in the United States along with others without a background in coding. Google's site reads "App Inventor requires NO programming knowledge. This is because instead of writing code, you visually design the way the app looks and use blocks to specify the app's behavior."

You will need an invitation to start using App Inventor but by filling out a simple form on http://appinventor.googlelabs.com is all it will take on your behalf. Simply follow the instructions provided here to set up your phone and computer (or go to http://goo.gl/Do4Ct). So let's get started, here's what you will need...

Set up your phone and computer

Step 1: Your computer will need to meet the following system requirements before you can download the App Inventor Extras Software.

Operating system

- Macintosh (with Intel processor): Mac OS X 10.5, 10.6
- Windows: Windows XP, Windows Vista, Windows 7
- GNU/Linux: Ubuntu 8+, Debian 5+

App Inventor

Browser: (simply put, the more recent, the better)

- Mozilla Firefox 3.6 and higher
- Apple Safari 5.0 and higher
- Google Chrome 4.0 and higher
- Microsoft Internet Explorer 6 and higher

Step 2: Install Java 6 (i.e., Java 1.6)

- Download and install Java from www.java.com (x86 Windows and Linux vesions available on the DVD), Java comes pre-installed on the Mac.
- Test if your Java is installed: http://goo.gl/DmR3.
- Try downloading and running one of these Java web Start demos: http://goo.gl/Vz4tG.

Note: It is imperative that step 2 is completed successfully in order to proceed with App Inventor development.

Step 3: Install the App Inventor Extras software

- Windows and Linux users will find the installer files on the DVD
- MAC user's may download the file from here: http://goo.gl/Qo1lH.
- Linux: the software will be installed under `/usr/google/appinventor-setup`.

Upon starting App Inventor for the first time (it runs in a web browser), in the Blocks Editor, the system will ask for the location of the adb program. The path is:

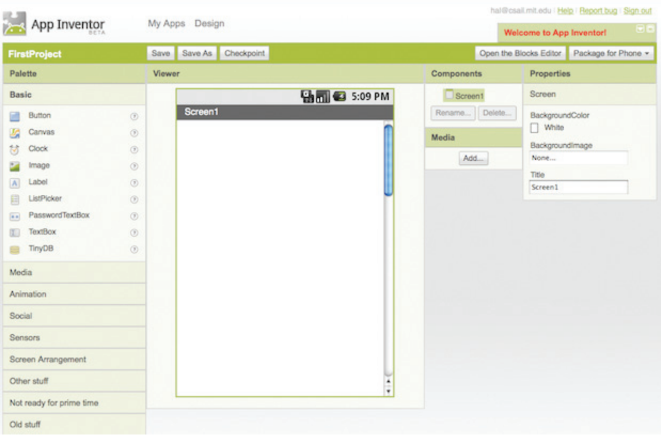
```
/usr/google/appinventor/commands-for-Appinventor/adb
```

- Windows: Click through the installer, but do not change the installation location. Record the installation directory, because you'll need it to check the driver

Drivers for common Android devices may be found in the App Inventor Extras package. For further information please visit: http://goo.gl/EMlgD.

Step 4: Set up your phone

- From your phone's home


App Inventor BETA
My Apps
Design
hal@csail.mit.edu | Help | Report bug | Sign out
Welcome to App Inventor!
FirstProject
Save
Save As
Checkpoint
Open the Blocks Editor
Package for Phone ▾
Palette
Viewer
Components
Properties
Basic
Button
Canvas
Clock
Image
Label
ListPicker
PasswordTextBox
TextBox
TinyDB
Media
Animation
Social
Sensors
Screen Arrangement
Other stuff
Not ready for prime time
Old stuff
5:09 PM
Screen1
Screen1
Rename...
Delete...
Media
Add...
Screen
BackgroundColor
White
BackgroundImage
None...
Title
Screen1

User interface designer that runs in the browser

Happy birthday Android

Android turned 3 on the 13th of November and is now the 2nd largest mobile platform in the world after Symbian

N1 not dead

The Nexus One is not fully dead yet. the Google phone is now available as the 'developer phone' to those interested in developing applications for the Androd platform

NO ANDROID PHONE? **NO PROBLEM!**

If you don't have an android device, or would prefer developing and testing only on your computer, then fret not, for Google's got you covered. Using the Android emulator you can do almost everything that a phone can (except for shaking it) and all you need to do is head over to:

http://goo.gl/5Mimm

screen, select the menu, then Settings, then Applications.

- If your phone has an Unknown Sources box, it should be turned on (checked).
- Still on the Applications screen, tap Development.
- Make sure both USB Debugging and Stay Awake are checked.
- Go back to the Settings screen (you can tap the Back button twice to get there).
- Tap Sound & Display and scroll down to Orientation and make sure it's not checked.

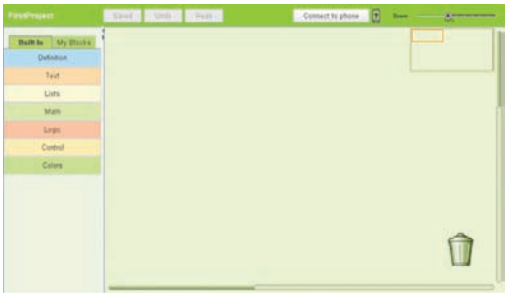
Note: On some phones there might be be only a Display settings item. If so, tap that and make sure that the Auto-rotate screen item is not checked.

- Make sure your phone is unlocked – that is, ready to make a call or run an app. Connect the cable from the phone to the computer's USB port.

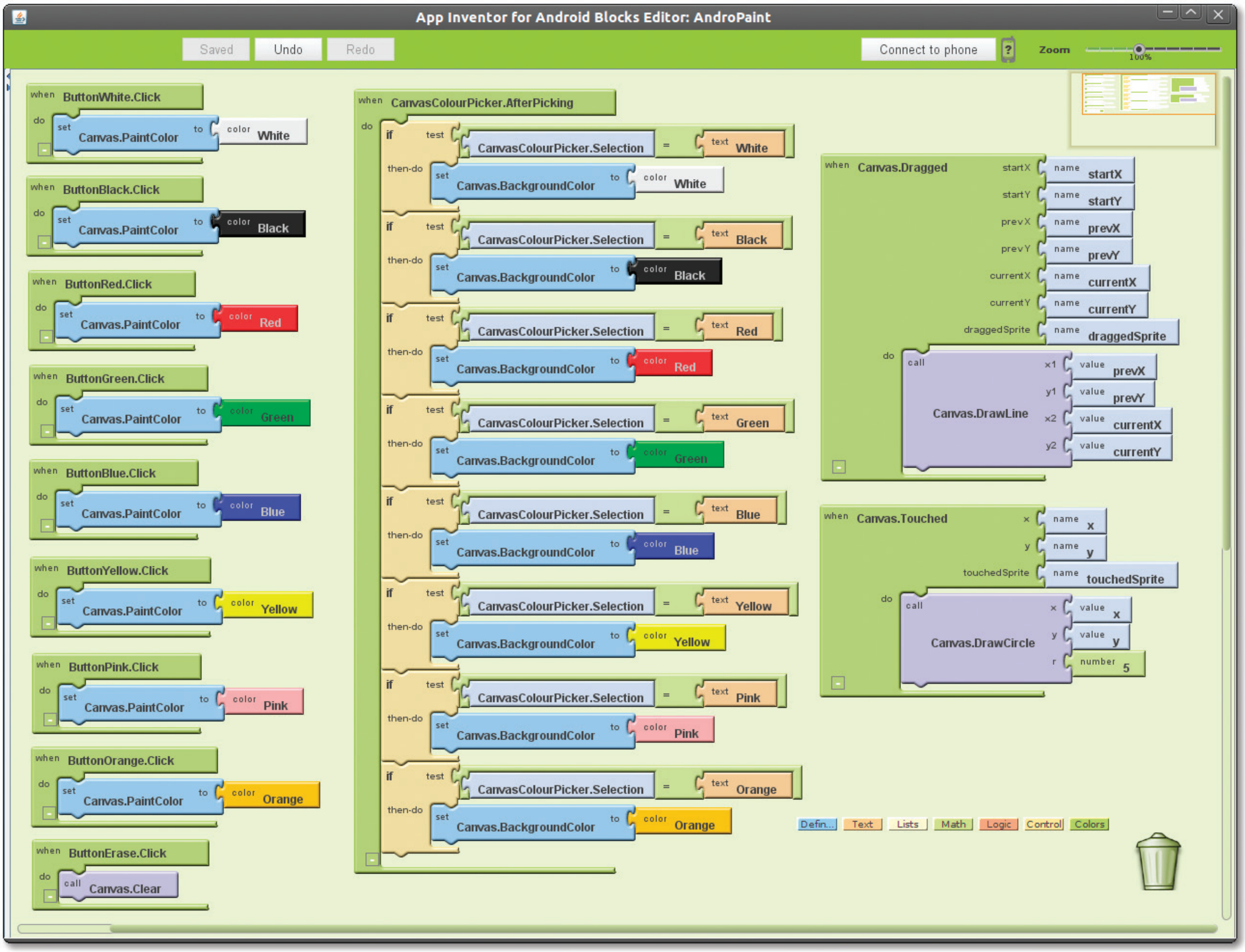
You should see two new notifications appear on the phone, with icons in the status bar:

- A "USB connected" notification that the phone is connected to the computer via USB.
- A "USB debugging connected" notification that the phone has USB debugging turned on.

Note: If you don't see both these notifications, then check to make sure that the phone settings are correct and that the USB cable is



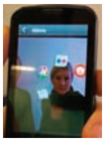
Blocks Editor Java file that runs locally on your computer



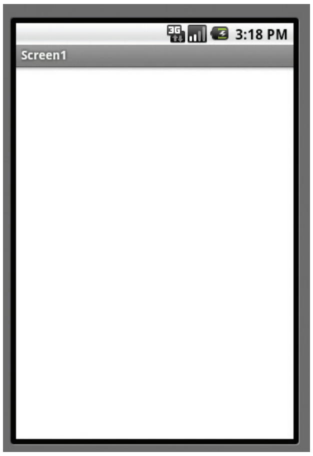
```
when ButtonWhite.Click
  do set Canvas.PaintColor to color White
when ButtonBlack.Click
  do set Canvas.PaintColor to color Black
when ButtonRed.Click
  do set Canvas.PaintColor to color Red
when ButtonGreen.Click
  do set Canvas.PaintColor to color Green
when ButtonBlue.Click
  do set Canvas.PaintColor to color Blue
when ButtonYellow.Click
  do set Canvas.PaintColor to color Yellow
when ButtonPink.Click
  do set Canvas.PaintColor to color Pink
when ButtonOrange.Click
  do set Canvas.PaintColor to color Orange
when ButtonErase.Click
  do call Canvas.Clear

when CanvasColourPicker.AfterPicking
do
  if test CanvasColourPicker.Selection = text White
    then-do set Canvas.BackgroundColor to color White
  if test CanvasColourPicker.Selection = text Black
    then-do set Canvas.BackgroundColor to color Black
  if test CanvasColourPicker.Selection = text Red
    then-do set Canvas.BackgroundColor to color Red
  if test CanvasColourPicker.Selection = text Green
    then-do set Canvas.BackgroundColor to color Green
  if test CanvasColourPicker.Selection = text Blue
    then-do set Canvas.BackgroundColor to color Blue
  if test CanvasColourPicker.Selection = text Yellow
    then-do set Canvas.BackgroundColor to color Yellow
  if test CanvasColourPicker.Selection = text Pink
    then-do set Canvas.BackgroundColor to color Pink
  if test CanvasColourPicker.Selection = text Orange
    then-do set Canvas.BackgroundColor to color Orange

when Canvas.Dragged
  startX name startX
  startY name startY
  prevX name prevX
  prevY name prevY
  currentX name currentX
  currentY name currentY
  draggedSprite name draggedSprite
do call Canvas.DrawLine
  x1 value prevX
  y1 value prevY
  x2 value currentX
  y2 value currentY

when Canvas.Touched
  x name x
  y name y
  touchedSprite name touchedSprite
do call Canvas.DrawCircle
  x value x
  y value y
  r number 5
```

AndroPaint blocks : Blocks of our final AndroPaint application

Serious about code?
If you are serious about Android development you can head over to http://developer.android.com or here's another great resource to get started with Java for Android **http://goo.gl/SEMw7**



Augmented Reality
The future of Android user interfaces: **http://bit.ly/aQ8l6b**



Display on your phone when you are ready to start building

plugged in correctly. You should see the two icons appear and disappear as you connect and disconnect the phone.

Your computer and phone are now ready to start App Inventor development. Let's proceed.

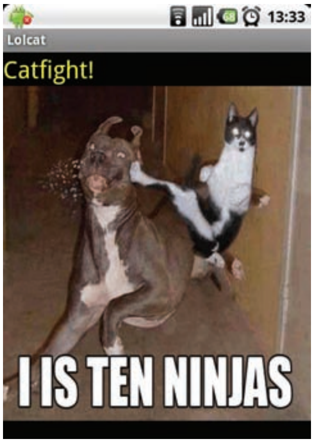
Connect App Inventor to your phone

Setting up App Inventor does involve a few more steps, but there is a need for downloading a "Code Blocks" *.jnlp Java file to run locally on your system everytime you restart, so head over to http://goo.gl/NWILA and continue to follow the instructions there. Your App Inventor app's user interface designer will run in the web browser (we recommend you give Chrome a spin if you're not already using it) and communicates via the codeblocks.jnlp blocks editor which inturn is communicating with your Android smartphone if you have one. Once you have the designer and blocks editor up and running, proceed to this tutorial: goo.gl/Q2asN and follow the instructions to create your first Android application "HelloPurr" using App Inventor.

UNABLE TO GET SyncServer?

If you encounter an error as the heading of the box above when connecting to phone using the Blocks Editor then a quick fix can be found here: **http://goo.gl/pDlbn**

Creating your first Android application should be a fairly simple task if you follow the instructions and understand how changes you make to the Blocks Editor application running in the *.jnlp file affect the behaviour of the application itself.



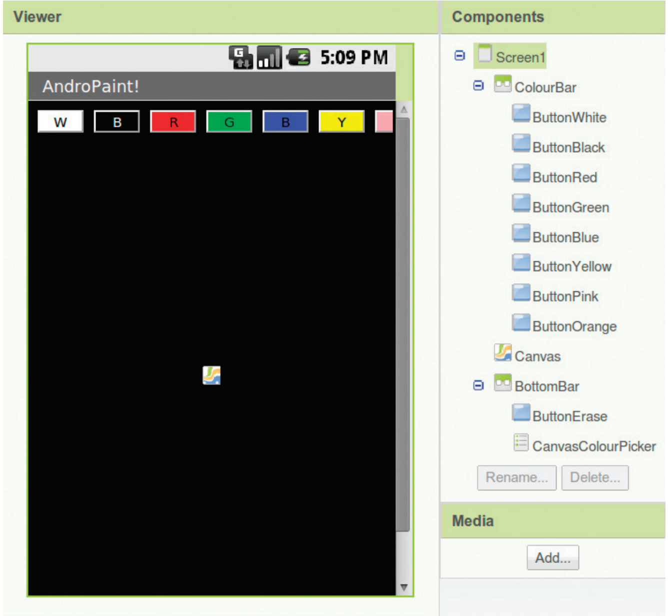
Hello world : Screenshot of our first Android app

IMPORTANT

Only proceed forward from this point after you have completed the first tutorial on the App Inventor website. We are assuming from this point onward that you have completed building your first simple Android app

On to more serious stuff!

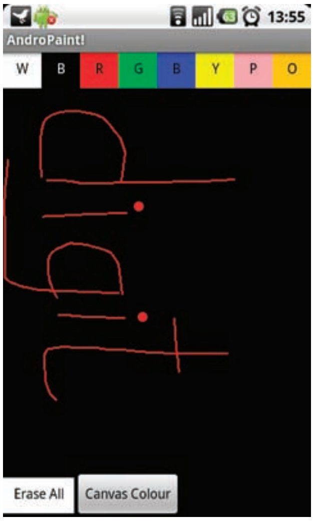
Feels great to get your hands dirty, doesn't it? Worry not, we are here to whet your appetite more. We are going to show you how to build your very own customised version of a freehand painting app.



AndroPaint designer : User interface and components of our final app

Though there is an existing paint tutorial, we have made our own modifications to the application and presented it here. Look closely at the screenshots provided and follow along to finish building your own Android paint application.

Tip: To save your masterpiece, download and install any screenshot application from the Android Market.



Screenshot of the AndroPaint app running on the phone

ANDROID DOES ₹ TOO

The Android "Market" is the place Android users go to get all their apps. Google has recently made available to users in India the facility of buying apps on the Market without any nasty "USD" on the price tag.

Watch out coders!

Now that you have created your first two Android applications and are a little more familiar with the workflow, we recommend you go ahead with the rest of the tutorials on the App Inventor site (http://goo.gl/UNbLk). Though App Inventor does not give you as much control over your apps as hardcore keyboard punching does, the quality of apps that can be built using App Inventor are quite high as can be seen in the tutorials. So we won't hold you any longer, but we will say this: build long, build hard, good luck and Godspeed! **d**

Cloud for your Applications

We show you how to access Windows apps on the cloud – without installing them

S.Doumuansiam Simte
readersletters@thinkdigit.com

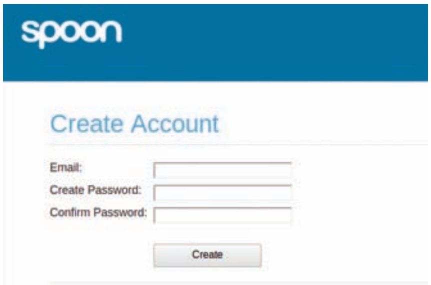
Most of the work we do in general, requires us to have different kinds of software installed on our systems. It's difficult to carry these software whenever we go – for example, from home to work. Perhaps, it's one of the largest drawbacks. The solution to this problem is an online service called Spoon.net. This service enables users to access Windows software to be run from a web browser itself. It's useful for those who don't carry portable storage drives and don't want the hassles of having plugin the flash drive everytime.

It helps application publishers and IT administrators to significantly reduce the costs and complexity associated with development, setup, configuration, deployment, and maintenance of software applications. One of the biggest advantages is not having to install a copy of the software on every PC that you work on.

Spoon.net uses a plugin which in turn downloads and executes Windows binaries from a browser. As of now, Spoon.net can only be used on Windows operating systems. There isn't yet a plugin for Linux and Mac OS. It's recommended that web browsers such as Firefox 3.0 to 4.0 beta 6, Internet Explorer are used.

Account creation

To create an account, click on the sign-in button on the top right of the image. Here, click on the Create a free Spoon account. Enter the necessary details, and click on Create, to experience life on the cloud.



Create Account

Email:
Create Password:
Confirm Password:

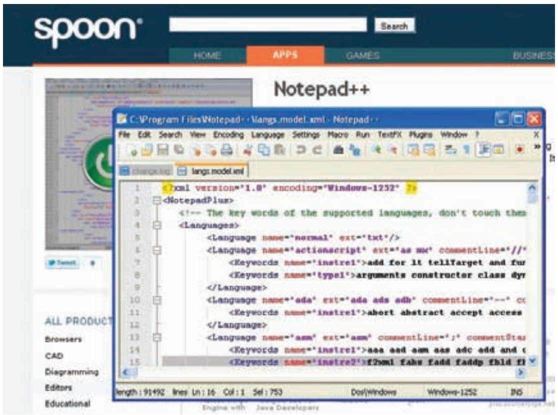
Creating an account

Installing the plugin

Log into your account using the same steps we used to create the account. Here, you'll see a bar at the top of the page to download and install the Spoon.net plugin. Click on the button. Save the file, close the browser and install the program. Re-login the site when the plugin has been installed.

Running software online

Once logged in, browse to either Apps or Games. There is a wide variety of software and games at your disposal. Click on the application you want to run. A short summary of the software and other similar software will be shown. To run the app, click on the Launch button or you can click on the thumbnail on the left of the page. Depending on the size of the software and also the speed of your internet connection, the loading should happen within a few minutes. You can then use the program to load, save and work on files on your local drive.



```
<?xml version="1.0" encoding="Windows-1252" ?>
<NotepadPlus>
    <!-- The key words of the supported languages, don't touch them
    <Languages>
        <Language name="normal" ext="txt"/>
        <Language name="actionscript" ext="as mx" commentLine="//"
            <Keywords name="instre1">add for lt tellTarget and fur
            <Keywords name="type1">arguments constructor class dyr
        </Language>
        <Language name="ada" ext="ada ads adb" commentLine="--" cc
            <Keywords name="instre1">abort abstract accept access
        </Language>
        <Language name="asm" ext="asm" commentLine=";" commentSta
            <Keywords name="instre1">aaa aad aam aas adc add and c
            <Keywords name="instre2">f2xm1 fabs fadd faddp fbld fl
```

length : 91492 lines Ln : 16 Col : 1 Sel : 753 Dos\Windows Windows-1252 INS

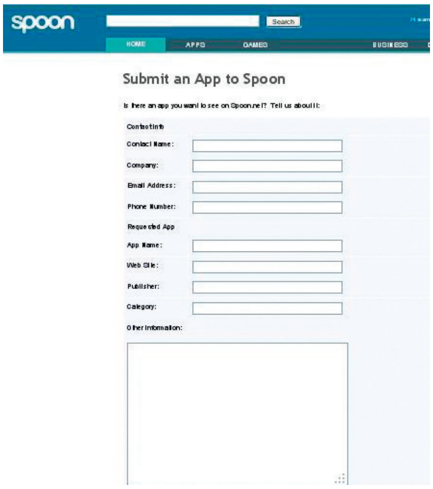
Launching applications on a browser

Services to use with Spoon.net

Spoon.net allows you to run software in the browser without the need to install them. Similarly, web services such as DropBox (www.dropbox.com) and SpiderOak (www.spideroak.com)are useful online services that can be used for storing, sharing and updating data. The main advantage of using services such as DropBox and SpiderOak is that they are simple and easy to understand. They support Windows, Linux, Mac and Android operating systems. .

Saving preferences

Every time a software runs, it creates the necessary configuration files on the hard drive. So, the next time you load the software, the software regains those settings. The settings aren't saved on the cloud, so you'll still need to setup preferences if you use a different PC.



Submit an App to Spoon

Is there an app you want to see on Spoon.net? Tell us about it:

Contact Info
Contact Name:
Company:
Email Address:
Phone Number:
Requested App
App Name:
Web Site:
Publisher:
Category:
Other Information:

Submitting an application to the Spoon.net library

Submitting your own software

If you're a software developer or a large organization that uses proprietary software, you can submit your own applications. However, there is a more formal submission process for it. You can do so by clicking the Submit App link in the footer of the page. d

Entering the third dimension

This one is for the early adopters

Agent 001
agent001@thinkdigit.com

We have been seeing these devices for the last couple of years, promising an immersive experience to users. In January 2010, at the annual Consumer Electronics Show in Las Vegas, this category got the boost that was needed to put it onto the consumer market. This category is now ready to enter our homes and not just be a promise for the upcoming future. We are talking about 3D TVs.

Since mid-2010 we have been seeing a lot of the major players in the HDTV segment rolling out their 3D TV models. Samsung got the ball rolling with its C7000 and C8000 series of LED LCD 3D TVs followed by Sony launching the Bravia monolithic 3D LCD TVs.

The advertising is as always, exaggerated, depicting ballerinas or butterflies coming out of the flat screen 3D TV to stress upon the USP of immersion. So I set out in search for the perfect 3D TV that money can buy.

The choices

Three brands – Samsung, Sony and Panasonic have been pushing forth their 3D TVs in the Indian market quite aggressively. A visit to the nearest consumer electronics store will not suffice for you to see all the models as this is still a very niche product category, and a very pricey one at that. At most you will get to see a couple of 3D TVs on display, and you have to really grill the customer care executive, to know about more models and other brands. Another sad thing we noticed was the absence of 3D glasses accompanying the 3D TVs on display. You will have to request for a pair of active 3D glasses to see the TV in full 3D glory. At other times, a 3D TV will have standard 2D content playing on it such that it merges with the other LED/LCD/Plasma TVs. So keep a look out for that 3D logo on the TV's bezel sticker.

Samsung has used the LED LCD technology for most of it's models and there is one LCD 3D and one Plasma 3D model as well. LG has stuck with LED LCD technology for it's 3D TVs. Sony uses the LCD technology in its Bravia line of 3D TVs while Panasonic has Plasma 3D TVs. All the brands start from 40 inches and go up to 55 inches in case of the LED LCD 3D TVs whereas Panasonic has products going all the way to 65 inches. One major advantage Samsung has over all the other brands is the manufacturing unit, which is located in India. This gives Samsung an upper hand as far as pricing goes.

Content

Since we still don't have 3D broadcasts here, we are assuming that the 3D content watched on the TV will be from a 3D HD Blu-Ray player, that involves an additional investment. But fret not, you can view your 2D content on the TV without any hitch and do all the things that you would on your normal HDTV. Also Samsung has enabled all its 3D TVs with the option of converting 2D content to 3D by the press of a button.

Shopping

Most of the showrooms that I went to, had Samsung and Sony Bravia 3D TVs on display. Samsung C7000 series' 40 inch model sells for ₹1,20,000 whereas the 46 inch is priced at ₹1,56,000. The higher C8000 series 46-inch model is available at ₹1,75,000. All these TVs come with a single pair of active-shutter 3D glasses. All of them come with four HDMI 1.4 ports, two USB ports but none of them ship with a HDMI cable. So factor in the additional cost of the HDMI cable, if you need it.

Panasonic TY-EW3D10 active shutter 3D glasses

The Sony Bravia HX800 line starts with 40-inch models priced at ₹1,20,000 whereas the 46-inch model costs ₹1,60,000. It again comes with four HDMI 1.4 ports. Sony bundles in two pairs of 3D glasses with each TV which is quite good.

Now, I keep having heated debates and discussions with the guys from Team Digit about the latest technologies in the market. In one such session, Nimish mentioned something interesting. He had been to the launch of Panasonic's 3D event called Dimensions in Mumbai (you can read about the event here : http://bit.ly/akV6Rn) few months ago, where he got a chance to watch 3D content on a 65-inch screen. He was quite impressed by what he saw as they had displayed a Panasonic Plasma 3D TV beside an LED LCD 3D TV, which gave him a quick comparison. Tilting your head on the side, is one thing you should do with any 3D TV, as he said that in the LED TVs the brightness changed as you tilted your head sideways. Note that tip.

I did not get to see any other brands in the multi-brand showrooms I window shopped at, so you will have to check out dedicated showrooms to get a first hand experience of the 3D capability of the TV. Be sure to bargain for an extra set of active shutter 3D glasses, as it costs ₹4,000 in the market.

Informed decision

Scarcity of 3D content is one of the major points to ponder on before you make a purchase. The whole 3D eco-system – involving shooting, editing and broadcasting in 3D - will take at least a couple of years to become mainstream. However, Panasonic while launching it's 3D range of products, had given clear indications that it is working with Bollywood and TV production houses to create 3D content for consumption on a 3D TV.

Till then you can enjoy 3D content off a compatible 3D HD Blu-Ray player. Your Sony PS3 is also capable of playing 3D Blu Ray content with a firmware upgrade. I would like to conclude by saying that as far as 3D TV is concerned, bigger is better. So go for a large screen to get a complete immersive experience.

Q P&S camera for ₹15,000

I'm planning to buy a camera with a good zoom, good picture stabilisation and lots of modes which can be selected manually while taking a photo. Mostly the photos I capture are either of nature or portrait. I'm not a professional but a starter in photography. I researched and selected two models, Canon PowerShot SX120 IS and Nikon Coolpix L110.

Now I'm confused which one to buy. Could you please help me with one? Also let me know if there are any other better models as well. My budget is ₹15,000.

Shrinivas Patil

A We recommend going in for the Canon PowerShot SX120 IS over the Nikon L110. The SX120 IS might have a smaller zoom lens but its more than sufficient for your needs.

Q Need recommendations for rig

I want to assemble a PC at the earliest. I have chosen the following configuration. Please let me know if this is good enough.

1. Intel Core i5 650
2. Intel DH55TC or Intel DH55HC (undecided which one to choose)
3. 2 GB DDR3 1333 MHz Kingston RAM
4. Samsung P2370 MS Monitor
5. Windows 7 HP 64 bit
6. Seagate Barracuda 500GB ST3500418AS 7200.12
7. Cabinet (undecided)
8. Power Supply (undecided)
9. Microsoft Keyboard and Mouse
10. Samsung DVD dual layer drive
11. APC UPS.

I am not into gaming so don't want a graphics card. Please help me on the serial no 2,7 and 8. Is the above configuration good enough to run 64 bit version of Windows 7 HP. What would be the estimated cost of the above system component wise?

Ankur Jain

A Look for a Gigabyte, ASUS or MSI motherboard instead, based on the H55 chipset. The ASUS P7H55 is a suitable board for around the same price as the Intel H55 board. The Cooler Master Elite 430 is a decent cabinet and look to a Corsair CX400 power supply for the configuration.

It's hard to give you an accurate price. The cost of the system without the UPS should be around ₹46,000.

Q Upgrading my existing rig

I want to upgrade my PC so that I can play all the latest games (like Crysis) even minimum or medium level graphics would do. I want to install Windows 7. My PC configuration is :

Intel Core 2 Duo E6300 @ 1.86 GHz
Intel D946GZIS motherboard
1 GB RAM (512 x 2 @ 667 MHz)
AOC 20" monitor e2043Fs (which I've recently bought)
200 GB Seagate hard disk
Creative SoundBlaster 5.1 w/ EAX effect (dosen't support Vista or Windows 7)
Creative 5.1 Inspire speakers

I want to know till what limit can I upgrade my RAM to. Please suggest a good graphic card also for my config. I'm thinking about XFX GeForce 9500GT 1 GB. A sound card too which can provide support for Windows 7. Do suggest any other changes if necessary, my budget is around ₹10,000 for my hardware upgrade.

Akshay Kadam

A The motherboard you have can support up to 4 GB of memory (two DIMMs with support for 2GB each). Spending on a sound card is only worth it if you're purchasing a high-end speaker set. The onboard sound solution should work just fine on Windows 7. The GeForce 9500GT along with an entry-level Core 2 Duo cannot perform well enough for a high-end game such as Crysis. If you are looking for a graphics card upgrade, look at a GeForce GT240 from ZOTAC or ASUS. If you are into gaming, we recommend upgrading your entire system.

Q Looking to buy a new camera

I have been wanting to buy a nice SLR but have not been able to do so because of the price tag. All the people that I have asked for suggestions recommend cameras worth 50,000 which I cannot afford. I need a camera that I can play with, to get different kinds of pictures using aperture size shutter speed, where I can manually focus on objects and get good pictures and effects. A camera that I can experiment with and at the same time learn to shoot. I would want the camera to have enough features so that it does not limit my learning experience. Closer to ₹20,000 would be ideal but I also don't want to compromise on quality. I could wait a little while longer to save up a little more cash if need be.

Arjun

A We would recommend looking at ultra zoom models but since the prices of DSLRs are dropping, look at the Nikon D3000 as it's a much more affordable camera and is ideal for people learning how to use DSLRs. It comes with a 18-55mm lens which is comparable to a 3x optical zoom on a point and shoot camera. The price of the camera should be around ₹23,000 - ₹24,000.

Q Best tablet for media?

I want to buy an Android based tablet. It should have Wi-Fi connectivity, 720p video playback (if 1080p is available then I would prefer that), full Flash support, large screen at least 7-inch (10.1-inch is recommended). The tablet should have the latest version of Android running on it.

Basically, I just want to watch high definition movies and have a rich web experience. I am not limited by budget. Please suggest accordingly.

Abhishek Kumar

A The Samsung Galaxy Tab is the ideal tablet for your needs. Another option is the SMC EZ Style pad which is great for media playback. It is cheaper than the Galaxy Tab, but it has a resistive touchscreen. So you might want to wait till SMC comes out with a capacitive touch pad version. Yet another option is OlivePad VT100. It's not particularly great. Since you say budget is not an issue, then you should go for the Apple iPad. You'll have to get it shipped from the US.

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IT is better here

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 245	3,310	AM3	2	2.90 GHz
AMD	Athlon II X3 440	4,500	AM3	3	3.00 GHz
AMD	Phenom II X2 550 Black Edition	4,940	AM3	2	3.10 GHz
AMD	Athlon II X4 630	5,150	AM3	4	2.80 GHz
AMD	Phenom II X4 925	7,110	AM3	4	2.80 GHz
AMD	Phenom II X6 1055T	11,250	AM3	6	2.80 GHz
AMD	Phenom II X6 1075T	12,980	AM3	6	3.00 GHz
Intel	Core i3-530	5,460	LGA 1156	2	2.93 GHz
Intel	Core i3-540	6,440	LGA 1156	2	3.06 GHz
Intel	Core i5-650	9,270	LGA 1156	2	3.20 GHz
Intel	Core i5-661	10,470	LGA 1156	2	3.33 GHz
Intel	Core i5-760	10,450	LGA 1156	4	2.80 GHz
Intel	Core i7 920	15,250	LGA 1156	4	2.66 GHz
Intel	Core i7-930	15,410	LGA 1366	4	2.80 GHz
Intel	Core i7-960	29,760	LGA 1366	4	3.20 GHz
Intel	Core i7-980X	55,530	LGA 1366	6	3.33 GHz

Motherboards - AMD

Brand	Model	Market Price (₹)	Socket/Interface	Chipset	PCI X16/PCI/SATA/USB
Asus	M2N68-AM Plus	2,530	AM2+	NVIDIA Geforce 7025/nForce 630a	1/2/4/4
Asus	M4A785TD-V Evo	6,650	AM3	AMD 785G + AMD SB710	1/3/5/6
Asus	M4A78T-E	6,930	AM3	AMD 790GX + SB750	2/2/2/5
Asus	M4A79 Deluxe	12,550	AM3	AMD 790FX + SB750	4/2/5/12
Biostar	TA785GE	3,940	AM2+	AMD 785G + AMD SB710	1/2/6/7
Biostar	TA880GB+	6,390	AM3	AMD 880G + AMD SB710	1/2/6/7
Biostar	A880G+	5,870	AM3	AMD 880G + AMD SB710	1/2/4/6
Biostar	TA880G HD	7,830	AM3	AMD 880G + AMD SB850	1/2/6/7
Gigabyte	GA-M68M-S2P	2,400	AM2	NVIDIA GeForce 7025 + nForce 630a	1/2/4/8
Gigabyte	GA-MA785GMT-US2H	5,260	AM3	AMD 785G + AMD SB710	1/2/5/6
Gigabyte	GA-880GM-USB3	5,570	AM3	AMD 880G + AMD SB710	1/2/5/12
MSI	K9N6PGM2-V	2,270	AM2+/AM2	NVIDIA GeForce 6100	1/2/2/4
MSI	785GM-E51	4,500	AM3	AMD 785G + SB710	1/1/2/5
MSI	785G-E53	5,260	AM3	AMD 785G + AMD SB710	1/2/5/6
MSI	890FXA-GD70	10,150	AM3	AMD RD890 + AMD SB850	2/2/6/14

Motherboards - Intel

Brand	Model	Market Price (₹)	Socket/Interface	Chipset	PCI X16/PCI/SATA/USB
Asus	P5G41-M LE	2,830	LGA 775	Intel G41 + ICH7	1/2/4/4
Asus	P5Q-VM	5,490	LGA 775	Intel G45 + ICH10	1/1/6/12
Asus	Rampage II Exteme	26,060	LGA 1366	Intel X58 + Intel ICH10R	2/2/6/12
Biostar	TPower I55	11,900	LGA 1156	Intel P55	2/2/6/8
Gigabyte	GA-G41M-Combo	2,650	LGA 775	Intel G41 + Intel ICH7	1/2/4/2
Gigabyte	GA-H55M-D2H	4,460	LGA 1156	Intel H55 Express	1/2/6/12
Gigabyte	GA-H55M-S2H	5,100	LGA 1156	Intel H55 Express	1/2/6/12
Gigabyte	GA-X58A-UD3R	11,560	LGA 1366	Intel X58 + Intel ICH10R	2/1/8/10
Gigabyte	GA-X58A-UD7	21,920	LGA 1366	Intel X58 + Intel ICH10R	2/1/8/10
MSI	G31TM-P35	2,600	LGA 775	Intel G31 + ICH7	1/2/4/4
MSI	G41TM-P33	2,680	LGA 775	Intel G41 + ICH7	1/2/4/4
MSI	P55M-GD45	5,640	LGA 1156	Intel P55	2/1/6/10
MSI	P55-CD53	6,080	LGA 1156	Intel P55	1/3/8/10

Gifting Kindle books

Amazon has announced that you can gift any of the 7,25,000 titles on the website, as gift to anyone with an email ID which can be read on Kindle or Kindle apps on smartphones

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NVIDIA Cards

Brand	Model	Market Price	Direct X	MEMORY TYPE	MEMORY/BUS WIDTH	STREAM PROCESSORS
Palit	GF 9400GT	2370	10	DDR2	1 GB / 128 bit	16
Palit	9800GTS	6030	10	GDDR3	512 MB / 256 bit	112
Palit	GTX 460	15180	11	GDDR5	1 GB / 256 bit	336
Palit	GTX 470	20600	10.1	GDDR5	1280 MB / 320 bit	448
Palit	GT240	5980	10.1	GDDR5	1 GB / 128 bit	96
Palit	9600GTS	4970	10	DDR3	512 MB / 256 bit	64
Palit	GT220	3710	10.1	DDR2	512 MB / 128 bit	48
Palit	9500GT	3510	10	DDR2	1 GB / 128 bit	32
Palit	GTX 480	30080	11	GDDR5	1536 MB / 384 bit	480
Sparkle	210	3130	10.1	DDR2	512 MB / 64 bit	16
Sparkle	GT 240	6470	10.1	DDR2	1 GB / 128 bit	96
Sparkle	9800GT	8940	10	GDDR3	1 GB / 256 bit	112
Sparkle	GTS250	8940	10	GDDR3	512 MB / 256 bit	128
Sparkle	9400GT	3710	10	DDR2	512 MB / 128 bit	16
Sparkle	9500 GT	4490	10	DDR2	1 GB / 128 bit	32
Sparkle	GT220	5720	10.1	DDR3	1 GB / 128 bit	48
XFX	9500 GT	3640	10	DDR2	1 GB / 128 bit	32
XFX	GTS 250	8350	10	GDDR3	1 GB / 256 bit	128
XFX	GT 240	5670	10.1	DDR5	512 MB / 128 bit	96
Zotac	GTS 250	7520	10	GDDR3	1 GB / 256 bit	128
Zotac	GT240	4920	10.1	DDR3	512 MB / 128 bit	96
Zotac	GT220	4370	10.1	DDR2	1 GB / 128 bit	48
Zotac	GT220	4160	10.1	DDR2	1 GB / 128 bit	48
Zotac	8400 GS	1860	10	DDR2	512 MB / 64 bit	8
Zotac	GTX 480	29480	11	GDDR5	1536 MB / 384 bit	480
Zotac	GTX 470	22010	11	GDDR5	1280 MB / 320 bit	448
Zotac	GTX 460	14450	11	GDDR5	1 GB / 256 bit	336

AMD Cards

Brand	Model	Market Price	Direct X	MEMORY TYPE	MEMORY/BUS WIDTH	STREAM PROCESSORS
Asus	EAH4350	2710	10.1	DDR2	1 GB / 64 bit	32
Asus	EAH5570	4280	11	DDR2	1 GB / 128 bit	400
Asus	EAH5570	5260	11	DDR3	1 GB / 128 bit	400
Asus	EAH5450	3200	11	DDR2	1 GB / 64 bit	32
Asus	EAH5450	3740	11	DDR3	1 GB / 64 bit	80
Asus	EAH5870	22660	11	GDDR5	1 GB / 256 bit	320
Asus	EAH5970	39560	11	GDDR5	1 GB / 256 bit	96
Asus	EAH5670	6240	11	GDDR5	1 GB / 128 bit	400
Asus	EAH5850	17720	11	GDDR5	1 GB / 256 bit	1440
Sapphire	HD 5570	5100	11	DDR3	1 GB / 128 bit	400
Sapphire	HD 5850	16710	11	GDDR5	1 GB / 256 bit	1440
Sapphire	HD 5870	23480	11	GDDR5	1 GB / 256 bit	1600
Sapphire	HD 5870	31120	11	GDDR5	2 GB / 256 bit	1600
Sapphire	VAPOR-X	25750	11	GDDR5	1 GB / 256 bit	1600
Sapphire	HD 5450	3400	11	DDR2	1 GB / 64 bit	80
Sapphire	HD4350	2730	10.1	DDR2	512 MB / 256 bit	80
XFX	HD 5450	4230	11	DDR2	1 GB / 64 bit	80
XFX	HD 4670	4740	10.1	DDR3	1 GB / 128 bit	320
XFX	HD 5770	10510	11	GDDR5	1 GB / 128 bit	800
XFX	HD 4350	2270	10.1	DDR2	512 MB / 256 bit	80
XFX	HD 5450	3920	11	DDR2	1 GB / 64 bit	80
XFX	HD 4650	4020	10.1	GDDR2	1 GB / 128 bit	320
XFX	HD 5970	45320	11	DDR5	1 GB / GDDR5	3200
XFX	HD 5830	16590	11	DDR5	1 GB / 256 bit	1120
XFX	HD 5570	5520	11	DDR3	1 GB / 128 bit	400
XFX	HD 5670	7140	11	DDR5	1 GB / 128 bit	400
XFX	HD 5750	9090	11	GDDR5	1 GB / 128 bit	720

Holiday helper
Get started thinking about your holidays with a little help from Google: **http://www.google.com/thinkholiday**

Flexible display
Samsung has demonstrated a flexible Super AMOLED display that we can expect in mid-2011

To deal with after effects

Protect your investment from the time you walk into the store till it sees the bright white light coming its way...

Why is it that companies across the world are turning to India? What is so extraordinary about the Indian market that the biggest retail chains of the world are joining hands with their Indian counterparts to establish themselves here? It is nothing but effect of ever increasing purchasing power of Indian consumers which has made India a major investment destination. Everyone wants to sell their product in India. Well, this is something we can be proud of and be happy about too. There are advantages to being the most preferred investment hub of the world from an economic point of view and as a consumer we get more choices, the latest technology, competitive prices and easy access to world class products and consumer durables. But despite all these things, there is one thing where the consumers are having tough time in protecting their consumer rights. Still despite having so much of awareness about consumer issues, big companies are taking advantage of the legal system and the comparatively unaware Indian consumers. The Indian consumer has become more demanding when it comes to purchasing power but still, a lot is to be done when considering enforcement of consumer rights. The majority of consumers are still unaware of their rights. The consumer courts in the Indian system do not offer a speedy and effective compensation and redressal system to the consumer.

Ms. Saumya, a working professional purchased a washing machine and fridge from a well known brand this summer. She specifically told the seller that she lives in a joint family and needs a heavy duty machine to handle the load accordingly. But with in two months of purchase the product started showing problems. The main pulley of the washing machine had broken. That was the start of a depressing phase of dealing with customer care executives. The contact number provided by the dealer was not in service anymore and to make matters worse the seller told her that it's no more their responsibility as the warranty had expired. After getting the service centre's number and having listened to long minutes of hold music she got through to an untrained executive to whom she had to explain problem. Somehow she managed to register the complaint and it was promised to her that some representative will visit her with in one working day but that ultimately materialised after two days. To make matters worse, the representative told her that the company doesn't cover breakage even without looking at the machine. When she explained to them that the machine broke spontaneously due to increased pressure and the manufacturing fault he agreed to send a technical representative to her. The cycle of calling the service centre and waiting started again. This situation not only reflects the story of Saumya but of many of us who go through such humiliation while availing post sale services. Once the product is sold, the attitude of the seller and company undergoes a sea of change. In such situations what precautions and steps must we take to safeguard our interests?

The first thing we need to ensure is that once the product starts having a problem then everything done or said in relation thereof should be in black and white. Even while making a complaint to the help line number, one written complaint should be sent to the customer care preferably to their email. This can serve as a good record and evidence to show the history of the problem with the product at a later stage if the matter goes to consumer court. Having anything on paper makes it hard for anyone to deny that particular fact. In case of a telephonic conversation, though it's not possible to have a written record,one must keep a record of the calls like what time and for what purpose they were made and what was the response thereto. You must write down the reference number for all the complaints made over the telephone.

Another thing, you should always redress your complaint to the seller also. The seller can in no circumstances wash his hands off his responsibilities by saying that the warranty is by the company and he has nothing to do with it. If you will address your complaints to the seller or make him a party to the legal proceedings he is bound to take interest in your problem for his own benefit and will pursue the complaint with the company at a personal level too. There is a fair chance that the company will take a sellers complaint seriously. The seller is making profit from the same product for which you have paid the consideration.

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It has also been seen that the company's contact numbers keep changing very rapidly. In that case, the internet can be a good source to update yourself and have latest contact information. These days, there are mechanisms available on the web site of company itself where you can register a complaint. Not only this, you can also register your product with company and have extra benefits. If your product is registered with the company they will have a ready record of all the things and can provide you with expedite services.

When any part is required to be replaced or repaired then you must satisfy yourself regardless of whether the damaged part was due to normal wear and tear of the product, especially if the fault was not caused by you. If that is the case you are not liable to pay for it. If you are feel that the damaged part was due to mishandling then you can pay for the part to be replaced. You must take a slip/invoice from representative for the same. It will help and ensure that you have been charged for right thing and for the right amount. Also ask for the warranty of the replaced part as there may be a chance that particular part may get damaged again. At times it happens that at the relevant time the receipt or invoice of the product is not traceable, in that situation you can pay at that time for the services availed subject to reimbursement at a later time. You can also have a duplicate invoice issued from the seller by giving him suitable information regarding the date of purchase etc. At the time of purchase itself you can find out with the company whether they provide on site warranty or not and if the warranty services are available globally. If you are an international traveller then having an international warranty is of immense help. For example if you are a software engineer and expecting that in the near future you will be sent for training abroad, then international warranty would be of assistance.

And whenever company representatives or technical representatives come you must fill out a copy of the customer feedback form in which you must express your remarks. You must express your remarks regarding matters like the representative had come later than promised time or if you are not satisfied with the services extended.

Post sale services are a major consumer issue which needs to be dealt with great heed right from the time of purchase. Other things become meaningless if the post sale services are not in order. One should not hesitate to ask for information at the time of purchase itself. Consumers must think about all the aspects carefully and patiently atpoint of purchase. It's not just the price of product which needs to be concentrated upon.

COMPLAINTS RECEIVED

Mobile Phones

Case File #1589

Vox cellphone has stopped working

I purchased vox mobile, model no. vgs-507, through AVA merchandise. My mobile was not functioning due to some technical problem. Please let me how to utilise waranty at the earliest.

G V Rao

Answer by Consumermate:

Dear Customer,

Warranty is your legal right which you can avail for a limited period. Though you have not made it clear at what time you have purchased it. We are presuming that your product is under warranty. The first thing you should do is write in to the service centre, to the company and to the dealer about your grievance, that your product is under warranty and you are facing such and such problems. Now onwards keep a record of all the communication, bills and other relevant documents which will be if use incase you want to take legal action.

Keypad of my cellphone is not working

I have purchased mobile model no. V-140 on 14.08.2010. After a few days its keypad stopped working. On 28th August I deposited my instrument at CRC Mehsana but till date have not received it.

Kulkarni Ajay Ratnakar

Answer by Consumermate:

The company in no circumstances can hold you waiting like this to get your mobile back. It has to be returned back in a reasonable period of time. One thing we can suggest to you at this stage is that in the first instance write to them a registered letter containing all the details of your complaint. It is very important proof of all your correspondence with them. In case they do not come up with a solution then you may go ahead with a complaint in the district forum. We hope some sense will prevail over them at the stage of the notice itself and they will sort out the matter for you.

Laptops

Case File #1977

Laptop's DVD writer not working

Sir, I bought laptop of model no 5920 around October 2008, but I felt trouble shoot before October 2009 i.e. before waranty expired. I registered a complaint about the problem and the problem was that laptop writer could not write CDs and DVDs. After complaining over and over again, my laptop has still not been repaired. Please see the matter seriously because now my warranty of my laptop is ending.

Dinesh Gupta

Answer by Consumermate:

Dear Consumer,

Thanks for sharing your experiences about the product. Well, legally speaking if the product is not under the warranty then it's entirely your responsibility. It's October 2010 approaching now. You can take a chance by writing a registered letter in shape of a legal demand notice to the company and to the dealer from where you purchased the product.

digit

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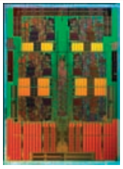
- 🟩 **Basic rig = ₹20,530**
- 🟦 **Multimedia cum gaming rig = ₹29,482**
- 🟥 **High-end Multimedia / Gaming rig = ₹45,600**
- 🟦 **High-end gaming PC = ₹58,075**
- 🟨 **Ultra high-end PC / Gaming rig = ₹1,58,695**

PRIMARY COMPONENTS



PROCESSOR

- 🟩 AMD Athlon II X2 245 / ₹2,750
- 🟦 AMD Athlon II X4 635 / ₹4,700
- 🟥 Phenom X4 945 / ₹6,600
- 🟦 Intel Core i5 760 / ₹9,800
- 🟨 Intel Core i7 960 / ₹26,500

MOTHERBOARD

- 🟩 ASUS M2N68-AM Plus / ₹2,530
- 🟦 Gigabyte MA78GM-US2H / ₹4,200
- 🟥 ASUS M4A78-PRO / ₹5,850
- 🟦 Biostar Tpower P55 / ₹6,500
- 🟨 ASUS P6T Deluxe V2 / ₹19,000

RAM

- 🟩 2 x 1 GB DDR2 800 MHz (Kingston) / ₹2,200
- 🟦 2 x 1 GB DDR2 800 MHz (Kingston) / ₹2,200
- 🟥 2 x 2 GB DDR2 800 MHz (Transcend) / ₹3,700
- 🟦 2 x 2 GB DDR3 1333 MHz (Kingston) / ₹3,150
- 🟨 3 x 2 GB Kingston HyperX T1 2,000 MHz / ₹10,300

GRAPHICS CARD

- 🟩 None
- 🟦 XFX GeForce GT240 / ₹4,432
- 🟥 ASUS ATi Radeon HD 5750 / ₹7,250
- 🟦 XFX Radeon HD 5850 / ₹16,000
- 🟨 ASUS GeForce GTX 470 x 2 (SLI) / ₹41,400

HARD DRIVE

- 🟩 Seagate 500 GB 7200.11 / ₹1,725
- 🟦 Seagate 500 GB 7200.11 / ₹1,725
- 🟥 Seagate 1 TB 7200.12 / ₹2,750
- 🟦 Seagate 1 TB 7200.12 / ₹2,750
- 🟨 WD Black Edition 1 TB x2 / ₹8,800

MONITOR

- 🟩 Dell IN2020M / ₹6,850
- 🟦 AOC 2236Vw / ₹7,750
- 🟥 AOC 2236Vw / ₹7,750
- 🟦 AOC 2236Vw / ₹7,750
- 🟨 BenQ G2420HD / ₹11,200

SECONDARY COMPONENTS

CABINET

- 🟩 NZXT Gamma Classic / ₹2,100
- 🟦 NZXT Gamma Classic / ₹2,100
- 🟥 Cooler Master Chassis Gladiator / ₹3,825
- 🟦 Cooler Master Chassis Selio / ₹4,250
- 🟨 Cooler Master Chassis Scout / ₹6,200

SOUND CARD

- 🟩 None
- 🟦 None
- 🟥 None
- 🟦 None
- 🟨 ASUS Xonar DX / ₹4,200

POWER SUPPLY

- 🟩 VIP 350 Watts / ₹850
- 🟦 VIP 400W Gold / ₹850
- 🟥 Corsair VX450 / ₹3,650
- 🟦 Corsair VX450 / ₹3,650
- 🟨 Corsair HX850W / ₹9,500

SPEAKER

- 🟩 None

- 🟦 None
- 🟥 Altec Lansing VS2621 / ₹1,625
- 🟦 Altec Lansing VS2621 / ₹1,625
- 🟨 Altec Lansing MX 6021E / ₹7,400

MOUSE

- 🟩 Logitech 3 button scroll / ₹300
- 🟦 Logitech 3 button scroll / ₹300
- 🟥 Logitech MX518 / ₹1,200
- 🟦 Logitech MX518 / ₹1,200
- 🟨 Logitech G5 / ₹3,195

OPTICAL DRIVE

- 🟩 LG H55N / ₹950
- 🟦 LG H55N / ₹950
- 🟥 LG H55N / ₹950
- 🟦 LG H55N / ₹950
- 🟨 LG WH10LS30 / ₹11,000

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

MOUSEPAD

- 🟩 None
- 🟦 Razer Goliathus Speed (Oversized) / ₹1,300
- 🟥 Everglide Titan / ₹1,450
- 🟥 Steel Series QCK Heavy / ₹2,000

HEADPHONES

- 🟩 None
- 🟦 Sennheiser HD 201 / ₹1,250
- 🟥 Sennheiser HD 280 Pro / ₹5,280

GAMING CONTROLLERS

- 🟩 MS Xbox 360 Controller / ₹1,250
- 🟦 Logitech Momo / ₹5,400
- 🟥 Logitech G27 / ₹15,000

PRINTING SOLUTIONS

- 🟩 Canon PIXMA iP1980 / ₹1,750
- 🟦 Canon PIXMA iP3680 / ₹5,050
- 🟥 Epson B-500DN / ₹21,000

POWER PROTECTION

- 🟩 None
- 🟦 Numeric 600 VA / ₹1,640
- 🟥 Numeric 1 KVA / ₹4,000

Compiling your own kernel

Kshitij Sobti
kshitij.sobti@thinkdigit.com

This article will NOT tell you how exactly to configure your system for best performance, lowest memory or smallest size. Instead we will tell you enough to get started and get exploring the Linux kernel.

A salute to the Kernel

Unless you are a hardcore Linux user, you might be a little overwhelmed by the subject of this article, but let us assure you, it’s much easier than it sounds while being much more complicated than it looks!

For starters, let us give you an idea of what the kernel really is. In common usage, the “kernel” of something is its very essence, it is the idea at the very core. Quite appropriately, the Kernel of an operating system is its very core, the piece of code that interfaces between the computer’s hardware and the applications running on it.

There are two basic approaches over the architecture of the kernel, on one side, there exists the “Monolithic Kernel”, and on the other “Microkernel”.

Monolithic kernels contain the entire OS within the kernel. This means all your driver and file-system code runs with highest privileges in the kernel’s address-space.

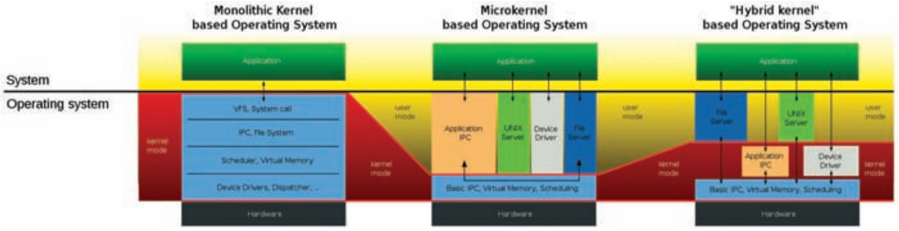
In a microkernel-based OS, only the bare minimum code needed to run the system is part of the kernel, and the rest runs with lower privileges. This allows even system-level components such as drivers to be treated as applications, i.e. if it crashes it can simply be restarted, instead of requiring a system reboot.

It is possible to have a kernel which exhibits properties in between these two. The Windows NT kernel for example, which is used in Windows 2000 / XP / 2003 / Vista / 2008 / 7, is a hybrid kernel.

The Linux kernel itself is Monolithic, however it is highly modular and supports loading such modules at runtime.

Different Kernel architectures

Monolithic kernel:


Monolithic Kernel based Operating System
Microkernel based Operating System
"Hybrid kernel" based Operating System
System
Operating system
Application
VFS, System call
IPC, File System
Scheduler, Virtual Memory
Device Drivers, Dispatcher, ..
Hardware
kernel mode
user mode
Application IPC
UNIX Server
Device Driver
File Server
Basic IPC, Virtual Memory, Scheduling

In a monolithic kernel, the kernel neatly separates the hardware devices and the applications which run on top of it. The drivers are “part” of the kernel as they reside in the same memory area.

Microkernel:

In a microkernel design the kernel manages a bare minimum of the system’s hardware leaving the rest to device drivers which run in the user space.

The Linux Kernel

Technically, Linux IS the kernel, and “Linux” in itself is not a very usable OS. The many Linux distributions out there are actually software running on the Linux kernel.

Being a monolithic kernel, Linux is huge. The Linux kernel is a complicated piece of coding which —as of October 2010— is over 13.5 million lines of code, spans over tens of thousands of files and supports dozens of platforms.

While the Linux kernel might not be a microkernel it is still quite modular. The Linux kernel can be —and has been— configured to run on an embedded device with lesser than an MB of ROM and RAM! The Linux kernel source code includes many switches that can be used to configure exactly what all features are built into the kernel, and how they are to be linked to the kernel. Additionally, not all hardware that you would like your system to support needs to be built into the kernel, some of it can be built as external modules which can be loaded and unloaded by the kernel at run-time to add support for certain features.

Even so, compiling this monster is a huge and complex task, but thankfully most of it is automated, and all you have to do is type a few commands, in fact configuring how the kernel should build can be done using a GUI.

Before we dig into that, we need to understand why there is any advantage in building your own kernel.

Why compile your own kernel anyway?

As we have said, compiling your own kernel is a huge task, which might be easy but is definitely not simple. So why do it in the first place? Why not just continue using the ready-made one which came with your distribution.

Nearly all Linux distributions out there include software, and a kernel that is compiled to run on the widest variety of hardware available. Even as of now, the 32-bit versions of most Linux distributions are capable of running an a Pentium or Pentium II! While you stand to gain by compiling any application for your hardware, you gain more from compiling system components such as KDE and Gnome and the kernel rather than a text editor like “gedit”.

A lot of the hardware that is supported by your distribution’s Kernel will never be of use to you, while you might be running

MINIX
The operating system which Linux set out to emulate, uses a microkernel architecture. The kernel of MINIX is only around 4000 lines, compared to Linux's 13.5 million

From source
Sorcerer, SourceMage, Lunar Linux, and Gentoo are distros based around compiling all your applications from source code so they can be optimized for your hardware

hardware that is not fully supported. Such hardware may be supported in a newer version or through patches that can enable support for it.

The kernel is the most central part of the OS, and one which you cannot do without, but the only way to make your kernel run faster or use less memory is to re-compile it exactly the way you want.

Hardware support is a great place for optimising the kernel. When configuring how your kernel is built, you will be able to control which drivers are loaded as modules, and which are compiled into the kernel. If you have a hardware device that you do not use regularly, it is best to have it as a module.

For example, if your computer only has Linux installed, you may not need support for NTFS, however you can keep it around as a module in case someone brings over a portable drive formatted in NTFS.

Next we go to the actual steps of compiling your own Linux kernel.

Compiling your own kernel

Before you begin, we need to remind you. Compiling the kernel is a long, CPU-intensive process, that requires large amounts of disk space.

Now many Linux distributions have their own version of the kernel, with their own customisations, and often the kernel build procedure can change because of this. So, instead of using your own distribution's kernel source code we will ask you to download the latest untouched "vanilla" kernel source code from the http://www.kernel.org web site, and build that instead. Before we go ahead, download the latest kernel sources and place them in the "/usr/src" directory.

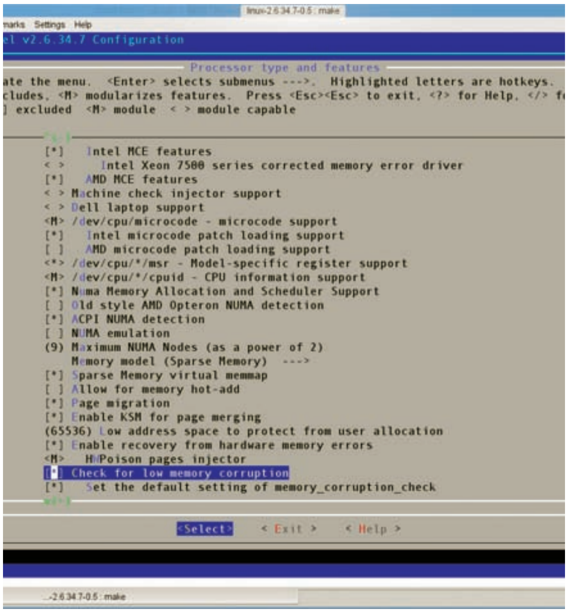
```
cd /usr/src
sudo tar xvf /path/to/download/
sources/linux-2.6.36.tar.bz2
```

At the time of writing this article, the latest kernel version was 2.6.36, hence we will use "/usr/src/linux-2.6.36/" as the directory containing the sources. Replace this with the directory where you extracted your sources.

STEP 1: Getting the build requirements ready

Building the Linux kernel requires quite a few packages to be installed. The usual build tools such as `GCC` and `make` are required, but the kernel has a few more dependencies for successfully compiling. A list of the tools you need will be listed in the "Documentation/Changes" file includes with the kernel sources.

Whichever distribution you use will probably include build tools for the kernel available as a package / meta-package / pattern etc. Simply install that and you should be good to go. Some features of the build process however, might have additional dependencies. For example, if you plan to use the graphical configuration tools, you need to have GTK or QT libraries installed. If you try to use these commands without the requisite packages installed they will output exactly what you need to install.



```
el v2.6.34.7 Configuration
                              Processor type and features
ate the menu.  <Enter> selects submenus --->.  Highlighted letters are hotkeys.
cludes, <M> modularizes features.  Press <Esc><Esc> to exit, <?> for Help, </> f
] excluded  <M> module  < > module capable

      [*]   Intel MCE features
      < >     Intel Xeon 7500 series corrected memory error driver
      [*]   AMD MCE features
      < > Machine check injector support
      < > Dell laptop support
      <M> /dev/cpu/microcode - microcode support
      [*]   Intel microcode patch loading support
      [ ]   AMD microcode patch loading support
      <*> /dev/cpu/*/msr - Model-specific register support
      <M> /dev/cpu/*/cpuid - CPU information support
      [*] Numa Memory Allocation and Scheduler Support
      [ ] Old style AMD Opteron NUMA detection
      [*] ACPI NUMA detection
      [ ] NUMA emulation
      (9) Maximum NUMA Nodes (as a power of 2)
          Memory model (Sparse Memory)  --->
      [*] Sparse Memory virtual memmap
      [ ] Allow for memory hot-add
      [*] Page migration
      [*] Enable KSM for page merging
      (65536) Low address space to protect from user allocation
      [*] Enable recovery from hardware memory errors
      <M>   HWPoison pages injector
      [*] Check for low memory corruption
      [*]   Set the default setting of memory_corruption_check
```

The ncurses-based configuration tool for the kernel

To keep everything neat and clean, we will use a separate directory for our compilation output. In our case we have created a directory called "linux" under our home folder, but you could place this anywhere.

It is a good idea to copy out the current kernel's configuration to the one you are building to serve as a starting point, so you don't need to configure everything. To do this, enter the directory where you want to build your kernel (in our case "~/linux" or "/home/username/linux"), and type the following:

```
zcat /proc/config.gz > .config
```

Most distribution kernels give access to the configuration via "/proc/config.gz", with this command we are extracting that information into a file called ".config" in the build directory. In case your distribution does not have "/proc/config.gz", you could look in "/boot" for the config file, which will likely be named "config-" followed by your kernel version. Copy this file to the build directory as ".config". If neither of these exist, you should check with your distribution's documentation for more information about how to locate this file, or simply start form scratch.

STEP 2: Configuring the kernel

This section alone can have a few thousand pages dedicated to it! We will instead give you just a singular piece of advice: If you don't understand what a setting does, don't touch it.

There are many ways to configure the kernel. The first is "wizard"-like method "make config" this will walk you through each one of the thousands of kernel configuration parameters one-by-one, we do not recommend you use this option. The second similar option is "make oldconfig", which you can use if you already copied the config of your running kernel in the last step. This will only ask you to configure settings which are not configured in the current ".config".

You will most likely be using one of the following three "make menuconfig", "make xconfig", or "make gconfig". The "make menuconfig" option will show you a ncurses-based console UI which will let you configure the kernel using checkboxes, radio-buttons, etc. This is a much more convenient way of configuring your kernel than the methods listed before, however even more convenient and easy to use options exist in "make xconfig" and "make gconfig". These options show a GUI based on Qt, and Gtk respectively which lets you easily browse all the options and read about them as you make your selections.

For each setting that you would like to configure, read the associated help text,

Multi-core?

By default the Linux kernel supports upto 512 processor cores, you may want to tone that down a little

GNU?

Some Linux distributions call themseves GNU/Linux to imply that it is a GNU software distribution running on a Linux kernel

and then enable / disable it as you find necessary.

Since we want to use a separate directory for our source and our build, we need to provide some additional commands over and above the ones we have listed above. We will add the following extra parameters to our `make` command:

```
make -C /usr/src/linux-2.6.36/ O=$PWD
```

The reason for this is simple. The "-C" option for `make` tells the `make` command to change to the specified directory (here "/usr/src/linux-2.6.36") as before running the command. The `O=$PWD` parameter sets the output directory to `$PWD`, which is an environment variable that your shell sets as the current directory. This is a way of saying run the `make` command in that (/usr/src/linux-2.6.36/) directory but output the stuff here. These need to be added every time.

So go ahead and run:

```
make -C /usr/src/linux-2.6.36/ O=$PWD xconfig
```

OR

```
make -C /usr/src/linux-2.6.36/ O=$PWD gconfig
```

And configure the kernel according to your liking.

STEP 3: Building the kernel

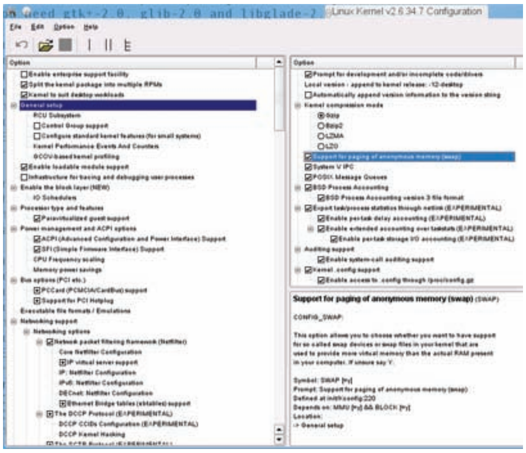
Finally, we get to building the kernel. This is as simple as issuing the `make` command, or in our case:

```
make -C /usr/src/linux-2.6.36/ O=$PWD
```

To take advantage of that multi-core system you have, you can issue this command with the parameter `-jN`, where `N` is the number of parallel tasks you wish to perform. This can have a significant impact on the build time. In our case the build time on an Intel Core i5 2.67 GHz quad-core system with 8 GB RAM went from 50 minutes for a single thread build to 13 minutes with 8 threads. We recommend staying within 2x the number of cores in your processor. So for a quad-core system with 4 build in parallel:

```
make -C /usr/src/linux-2.6.36/ O=$PWD -j4
```

This step will take time, depending on how fast your system is, how many cores your computer has and how many parallel tasks you enabled. This could take from a few minutes to over an hour.



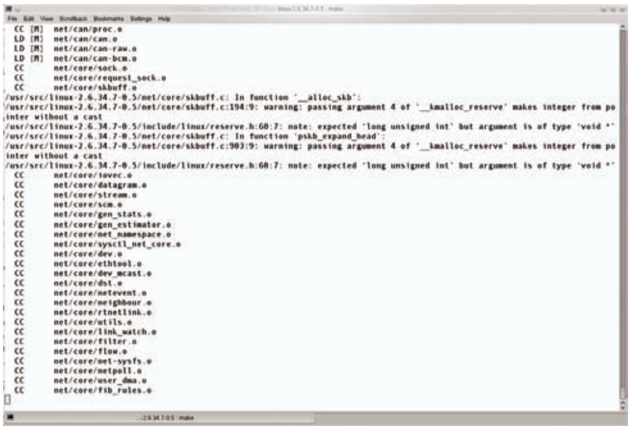
The Qt-based GUI for configuring the Linux kernel.

STEP 4: Installing your new kernel

Till now all the commands we have run have been run as a normal user. However these final few steps need to be run as the super-user. So we assume you have switched to the super-user (using "su") for the last few steps.

Now we need to install the modules for our kernel build:

```
make -C /usr/src/linux-2.6.36/ O=$PWD modules_install
```



```
  CC [M]  net/can/proc.o
  LD [M]  net/can/can.o
  LD [M]  net/can/can-raw.o
  LD [M]  net/can/can-bcm.o
  CC      net/core/sock.o
  CC      net/core/request_sock.o
  CC      net/core/skbuff.o
/usr/src/linux-2.6.34.7-0.5/net/core/skbuff.c: In function '__alloc_skb':
/usr/src/linux-2.6.34.7-0.5/net/core/skbuff.c:194:9: warning: passing argument 4 of '__kmalloc_reserve' makes integer from po
inter without a cast
/usr/src/linux-2.6.34.7-0.5/include/linux/reserve.h:60:7: note: expected 'long unsigned int' but argument is of type 'void *'
/usr/src/linux-2.6.34.7-0.5/net/core/skbuff.c: In function 'pskb_expand_head':
/usr/src/linux-2.6.34.7-0.5/net/core/skbuff.c:903:9: warning: passing argument 4 of '__kmalloc_reserve' makes integer from po
inter without a cast
/usr/src/linux-2.6.34.7-0.5/include/linux/reserve.h:60:7: note: expected 'long unsigned int' but argument is of type 'void *'
  CC      net/core/iovec.o
  CC      net/core/datagram.o
  CC      net/core/stream.o
  CC      net/core/scm.o
  CC      net/core/gen_stats.o
  CC      net/core/gen_estimator.o
  CC      net/core/net_namespace.o
  CC      net/core/sysctl_net_core.o
  CC      net/core/dev.o
  CC      net/core/ethtool.o
  CC      net/core/dev_mcast.o
  CC      net/core/dst.o
  CC      net/core/netevent.o
  CC      net/core/neighbour.o
  CC      net/core/rtnetlink.o
  CC      net/core/utils.o
  CC      net/core/link_watch.o
  CC      net/core/filter.o
  CC      net/core/flow.o
  CC      net/core/net-sysfs.o
  CC      net/core/netpoll.o
  CC      net/core/user_dma.o
  CC      net/core/fib_rules.o
```

The Linux kernel compiling, one build at a time.

Finally we install the kernel with:

```
make -C /usr/src/linux-2.6.36/ O=$PWD install
```

Now we may have one final task left, to create an initial ramdisk image "initrd" for your kernel. This will again depend on the distribution you are compiling for.

We need to go to the "/boot" directory and run `mkinitrd`.

Ubuntu and some other distributions use "mkinitramfs", in this case run go to the /boot directory (still as a super-user or using "sudo"), and run:

```
update-initramfs -c -k vmlinuz-2.6.36
```

Finally, finally, finally you need to update your boot loader, this will depend on the distribution you are using. For newer versions of Ubuntu, this will be "update-grub2" otherwise "update-grub". If your distribution uses some other boot-loader, please check the specific instructions for your boot loader ("lilo" can be updated using the "lilo" command).

It is a good idea to keep your old kernel around, at least until you are sure it is stable and all your hardware is working. You may also need to build any third partly kernel module such NVIDIA or ATI drivers for your new kernel.

Conclusion

Building you own Linux kernel has a plethora of advantages, and only some of them have been described in this article. While the information presented here is enough to get a build running, the rest of the burden is still on you. Read the "README" file which comes with the kernel sources, and refer to the extensive documentation available inside the Documentation folder included with the kernel sources for any specific configuration options. Finally, refer to your distribution's own guide to compiling the kernel as this may have additional features / options that the "vanilla" kernel might not.

Depending on how well versed with Linux you are, reading this article will either appease your concerns about compiling your own Linux kernel, or further turn you off the concept. If you find that the kernel is harder to build than you thought, you probably need to spend some more time using Linux before you are ready to take this step. Otherwise you are probably half-way through the build process already. In that case: Good Luck!

Intel AppUp℠

MONETIZING APPS THROUGH INTEL APPUP CENTER

While software applications traditionally lie more in the domain of desktop / laptop computers, app stores have become more popular for mobile platforms. The good news is, app stores aren't limited to the smartphone anymore. The Intel® new AppUp℠ store has entered the mix.

You must have come across some handy utility or remarkable tool and exclaimed "Why did I just find out about this!" or "Why doesn't the world know about this!" It happens, often the best, most useful software is hidden away behind layers of links on obscure websites, often it is difficult to even trust such sources. This is one of the difficulties for both users and developers that is mitigated by app stores.

The concept of app stores is quite similar to something Linux user's will already be aware and thankful for, application repositories. Linux distributions usually include centralized locations from where all your applications can be downloaded. On the other hand Windows users have to do what is the equivalent of going from one factory to another to buy the product each one sells. Usually Linux distributions will include simple tools to centrally manage the installation and uninstallation of applications, such as Ubuntu Software Center. This allows all application installs, uninstalls, and updates to be managed from one place.

Since Linux is open source, and all applications available in the repositories are either open source or free, they don't have much support for paid apps. In this context you can think of App Stores as Linux-like application repositories which support purchasing apps. For web applications Google announced the Google Chrome store for selling web applications, and Mozilla drafted its concept of a web app store ecosystem. Intel® AppUp℠ center is intended to be a store for Netbook devices.

Netbooks are another growing segment of personal computers that are only now beginning to gain attention as a target for application development. While netbooks are considered to be simply underpowered laptops, they do present unique challenges that stem from their limited screen size and processing power, which need to be utilized while ensuring as rich an experience as possible.

Intel® AppUp℠ center is designed similar to the current app stores wherein the developer can create applications for the App Store that can either be free or paid. In the latter case the developer gets a certain percentage share of whatever their application makes — in the case of Intel® AppUp℠ center, it is the usual 70%.

What the developers have to gain is promotion in a well publicized store run by the world's largest semiconductor manufacturer. If they choose they can use some of their 70% share to buy additional promotion for their applications. It is like going from a door-to-door salesman handing out fliers, putting up posters, to having your product available and featured in a major store.

What the users have to gain is a single interface from where they can access a plethora of applications neatly categorized and well described, with reviews and ratings in which they can participate. They can make all purchases from a single store instead of individually for each software making it easier to track their purchases. Additionally, users can be sure that the applications do not contain any malware, as they have been through a review process, and by tapping into the power of community ratings and reviews they can have a fair idea of what they can expect from the application before they invest in it, or even download it for free. Intel® AppUp℠ center also lets consumers cancel a purchase within 24 hours, hence making sure consumers have a chance to try the app before they buy it.

The Intel® AppUp℠ developer program however goes beyond just helping developers sell their applications. The program also has a component marketplace where developers can sell and buy application libraries / components. Often application libraries and components themselves require quite a lot of effort to develop and maintain. If the developer seeks some compensation for a library/ component they have developed, they can enter into a revenue sharing with the app developer who wants to use their component. So the amount of money your component makes directly corresponds to the popularity of the applications which use it. For obvious reasons, components which aren't free can't be used in free application — with no revenue there is none to share.

The Intel® AppUp℠ center will currently support applications developed to run on Windows or Moblin Linux — a Linux distribution developed for netbook computers by Intel®. As part of an effort between Nokia and Intel®, their two Linux branches, Moblin and Maemo —used on Nokia's N900 internet tablet / phone— have merged to form MeeGo, and that platform too is supported by the SDK for

Here's the excerpt from the interview we had with Scott Apeland, Director Developer Network at Intel and Narendra Bhandari, Director, Asia Pacific, Intel Software and Solutions Group.

Q. How is Intel® establishing its relationship with its whole developer community in India?

What is your real say or plan in engaging them in say three to five years from now.

A. Intel® has actually had strong relations with software developers for many years. Although we are a hardware company, we provide microprocessor software and is a critical component for us to really help end users to take advantage of the technologies. It's through the software that they do that, so it's been critical for a long time. We have programs specifically dedicated for software developers, so that's my area of responsibility. Worldwide software partner program, software network and academic initiatives are really business-oriented programs for companies to partner with Intel® to take advantage of the technology and grow their business. At our Intel® developer forum just two months ago, we announced that we have retail partners as well, and not just OEMs such as ASUS and ACER putting them in devices, but retail partners such as Best Buy in the US, Croma in India and Dixons in the UK. These are leaders in their space, and bundle it pre-installed and market it to their users and that's happening now. It's a kind of next step in this process. It's giving it to consumers' hands, marketing it to them and then creating that pool for developers so they can make money and get excited and write more applications. The whole process right now is to roll out the retail piece of this.

SCOTT APELAND
DIRECTOR DEVELOPER NETWORK INTEL

Q. Give examples of what kind of applications Best buy or Croma would be integrating into their netbooks ?

A. The popular categories are games, where a lot of applications are coming in. Another type of content for which apps come in are travel resource, because a lot of the netbook users are mobile, on the go, maybe even family vacation travellers, there are some health-related applications such as exercise programs to monitor your health, city guides, education stuff and so on.

Q. So do you first find out the need in the market and then communicate it to the developers, or is it the other way around where developers themselves identify the need and create apps for the consumers?

A. I would say it's both. Our initiative in this regard was Ideate Up where we went to the consumers and asked them what kind of apps they would like to use. It wasn't a formal survey or any focus groups involved. We just told them to tell us about their dream app and write about it. In a few weeks, we got over 650 ideas from people and these were filtered ideas, not trash. Users actually voted on the best ones and they got converted into applications. So we just rolled out Ideate Up in India and saw some tremendous response from both developers and consumers. A quarter of the apps published in the website have come from India, and Indian developers have the second largest base in AppUp^{SM}.

NARENDRA BHANDARI
DIRECTOR, ASIA PACIFIC INTEL SOFTWARE AND SOLUTIONS GROUP

Q. At the industry level there is a lot of competition in terms of different companies having their own platforms for developers. So do you see any convergence of platforms happening. What are your views on this this?

A. Meego, which is a Linux-based mobile version, is an open platform driven by the Linux foundation with main contributors as Intel® and Nokia which will solve a lot of problems that some developers, partners and even consumers are seeing today. So from a developers perspective, he/she is having to write his/her application for one platform and then write it for a completely different operating system, rewrite the whole code multiple times. One of the big benefits of Meego is that you have one operating system across all these devices and fairly easily can modify your app for a specific device user experience and reduce cost quite substantially. Similarly, from an OEM or service provider's point of view, they can also look and say there is one store, one software platform that would run across tablets, phones, netbooks, TVs and all the other devices they want to reach. More importantly, their investment also goes down quite substantially as well.

Linux from Intel®. The Intel® AppUp^{SM} developer program supports both native development, and development of applications which use a runtime. Currently the AppUp^{SM} developer program includes an SDK for native development using C/C++ on Windows, or using .NET, a beta SDK is available for the Moblin Linux platform as well in both rpm, and deb package formats.

Intel® AppUp^{SM} developer program also supports runtime technologies such as Adobe AIR, Microsoft Silverlight and Java. While Java and Silverlight are currently only on the roadmap, the Adobe AIR SDK is available right now for both AIR 1.5.3 using Flex 3.5.1 and AIR 2.0 using Flex 4.1. These platform and runtimes are not final, as Intel® will keep its eye open for future developments in the field, and may include other programming languages and runtimes.

Interested in developing apps for the Intel® AppUp^{SM} center? Register at the Intel® AppUp^{SM} developer program, and participate in the Digit Application Developer Contest to win exciting prizes such as Netbooks, MP3 Players, 8GB Pen Drives, and a lot more. Also, once you register to the program, you can submit your apps and get a chance to own a custom-ordered BMW - plus a trip to Germany to pick it up. ■

No takers for ver 3?
Perhaps the backward incompatibility of the latest version of Python is the reason why it's not being adopted as easily

What's in a name?
The name python is a reference to the infamous comedy group Monty Python's Flying Circus. Looks like the developers of the language had a funny bone

Python

- a quick and dirty tutorial

Kshitij Sobti
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Whether you have used it or not, Python is probably a language you all have heard of. The reason is simple, this language has friends in high places.

Python is a favoured language at Google, and was one of the first languages supported in its Google App Engine platform for developing web applications. It is also the language in which Google choose to write its GoogleCL command line interface for Google services. Many organisation use Python both internally and in shipping products. The popular Civilization IV game by Firaxis for example, makes extensive use of Python for the game mechanics; Industrial Light and Magic too use Python, as does Yahoo. Blender, possibly the most popular free and open source software for creating and editing 3D content, makes significant use of Python. While Firefox itself isn't written in Python, its build system makes extensive use of Python.

So why so much love for Python? Well, because it is fast, it is free and open source, and best of all it is easy to learn. Python is portable, and is available for multiple platforms, Windows, Linux, Mac OS, and is embeddable in other products. For someone new to programming, Python is a great language to start with, and will likely stay with you even as you learn other languages.

Python is a high level language, which means most operations you wish to perform have libraries and can be handled in just a few lines. You can, for example, have a simple web server up and running in under 100 lines of code, thanks to the HTTPServer class.

Python is extensible, and one will find thousands of modules which extend its functionality. Python is scalable, considering that YouTube, is almost entirely Python! Most of the modules that come with Python are actually written in C / C++ so they run at native speeds, and your programs generally run faster than those of other interpreted programming languages.

Python is good at interfacing with other programming languages such as Java and C++ making it a great language for programming higher level features of an application, while keeping performance-critical functions in native code. This enables Python developers to easily use C / C++ libraries such as Qt / GTK+ and other

Python is also peculiar. Unlike most programming languages, where white-spaces and tabs are used simply for code formatting and discarded otherwise, Python uses these elements as part of the code structure. Python uses spacing instead of '{' brackets or text to denote blocks of code.

In one sentence, Python is a fast, interpreted, Object-Oriented, Dynamic, free, Open Source, powerful, extensible, modular, high-level, portable programming language that is easy to learn, and which has a powerful library, good documentation, a large number of third party modules, and a sense of humour.

Learning Python

Whether you are simply looking for a language to automate simple tasks or, process data in bulk, or if you want to prototype or write an entire application Python is a great tool for the job.

Since Python enforces code indentation, and makes it part of the language, Python code is quite easy to understand. Look at the following code sample:

```
  a, b = 0, 1
while a < 1000000:
    a, b = b, a+b
    print(a)
```

By looking at this program it is quite easy to understand what it does. The first line simultaneously assigns the value 0 to a, and 1 to b. The second line tells us that the subsequent code needs to be repeated while the condition following it holds true. The third line is clear in that it prints the value of the variable b. The final line, sets the value of a to b and the value of b to a+b.

Some of you may be aware of the mathematical significance of this code, but for those who aren't, this code will print the Fibonacci sequence. The Fibonacci sequence is a series of numbers where each number is the sum of the previous two numbers in the series. The first two numbers are conventionally both 1.

However, let us make one small change in the program:

```
  a, b = 0, 1
while a < 1000000:
    a, b = b, a+b
print(a)
```

Now as you can see, the indentation of print(a) has been decreased, putting it in line with the while loop instead of its contents. This small change stands to completely change what out code does. In this new code, instead of printing all Fibonacci numbers up till a certain point, it will print only the first number of the Fibonacci sequence which is greater than the specified limit. This is because, instead of being printed at each execution of the loop, now this number will only execute once, at the end.

You may have noticed that we did not need to declare any of the variables before assigning values to them.

Numbers in Python

Python is very powerful at handling numbers. In the previous code sample for example, you would have to add considerably more zeros to 1000000 before you will actually notice the program taking time in performing the operation.

You can do simple mathematical operation with ease. Operations such as +, -, * and / work as expected. Like most other languages Python also includes the remainder or mod function %. However, Python in addition supports a '//' operation, which is an integer division operation. It will return the integer result for the operation while discarding the fraction. For example:

```
  >>> 19/4
```

More python humour

We told you it's a language with a funny bone. Head over to this url for some free lols: http://www.python.org/doc/humor/

Xah Lee say:

There is a Python, pithy mighty, lissome, and tabby
Algorithms it puffs conundrums it snuffs,
and cherished by those savvy

```
4.75
Normal division yields
the expected outcome
  >>> 19//4
4
Integer division dis-
cards the fraction (0.75)
flooring the result
  >>> 19//-4
-5
```

With negative numbers the rounding works as expected for negative numbers. i.e. -4.75 rounds to -5

Another popular mathematical operation which is natively supported by Python is the exponent operator. You can use it as follows:

```
  >>> 2**32
  4294967296
```

Python supports multiple simultaneous assignments:

```
  a = b = c = d = 0
  and
  a, b, c, d = 1, 2, 3, 4
```

Python can very easily operate on complex numbers. This is very useful for those wanting to use Python for mathematical applications. You need not write your own class or use a library, complex operations are inbuilt. Hence they also have a much more natural syntax. Complex numbers are written as 1 + 5j or 29 – 34J. So the following will work out-of-the-box:

```
  >>> (1+11J) + (9-13j)
  (10-2j)
  >>> (1+11J) - (9-13j)
  (-8+24j)
  >>> (1+11J) * (9-13j)
  (152+86j)
  >>> (1+11J) / (9-13j)
  (-0.536+0.448j)
```

Many other complex number operations such as extracting the real part, the complex part, getting the magnitude, etc are all supported. However let's move on.

Strings in Python

Strings in Python cannot be changed once assigned, unlike many other languages. So once you set a variable to a string value, you cannot manipulate the original string. As usual, you can express strings by enclosing them in double or single quotes. You can use quotes inside strings by using escaping the quotes (as in 'here\'s how to do it') or by using an alternate quote style (as in "here's how to do it"). If you have a multi-line string, you can use triple-quotes ("' or """) as:

```
  '''
Here
is some
multi-line text
'''
  Or you can use a raw string:
  somestring = r"Here
is some
multi-line text"
```

In a raw string, escaped entities such as '\n' for newline \"and \' are not converted but used as is.

String can be added:

```
  text = "Some" + "Text"
  or even multiplied:
  >>> text * 5
  'SomeTextSomeTextSome-
TextSomeTextSomeText'
```

Unlike some other languages, to find the length of a string in Python, you don't have something like string.length, instead you have to use the inbuilt length function as follows:

```
  len(string)
```

This function (len) will also work on other objects such as arrays and hashes that have lengths.

Python has some very powerful ways of working with strings. Python includes a syntax for accessing the elements of a list or string using the usual box [], however in Python this syntax is greatly empowered. In Python, the square brackets take three parameters [start:end:step]. So somestring[a:b:c] is equivalent to saying "Return a string composed of the characters of string 'somestring' where every cth starting from index a and going on till index b is chosen." Some or all of these parameters can be omitted. If you omit a starting index, then it will be taken as 0, if you skip the end index, it will be taken as the length of the string, if you omit the step, it will be taken as 1. All three of these can be negative as well! In case of negative indices, the counting will start at the end of the string, as will become evident from the examples that follow. Finally, you can have a negative step as well, in which case characters will be read in reverse, making reversing s string in Python as simple as somestring[::-1].

foo[2:11]	'is is a s'
foo[:11]	'This is a s'
foo[5:]	'is a sentence'
foo[1:-1]	'his is a sentenc'
foo[:-1]	'This is a sentenc'
foo[::2]	'Ti sasnec'
foo[::3]	'Tss nn'
foo[::-1]	'ecnetnes a si sihT'

```
  Let us say we have:
  foo = "This is a sentence"
  Then:
```

Lists in Python:

Lists are equivalent to arrays in many other languages. However in Python a list can have items of different types.

```
  a_list = ['reticulatus',
'molurus', 2, 3.1]
```

Lists support the same kind of operations with square brackets as we have explored with strings above, with the same [start:stop:step] syntax.

To add elements to an existing list, you can use list.append(newitem), or list.insert(newitem,index). You can also extend a list with another list using list.extend(anotherlist). Removing items is accomplished with list.pop(), which removes the last item, or list.pop(index), which removes the item at the index position.

To search in a list, you can use list.index(value), or if you don't need to know the index, you can simply do the following:

PYTHON HUMOUR

A little girl goes into a pet store and asks for a wabbit. The shop keeper looks down at her, smiles and says:

"Would you like a lovely fluffy little white rabbit, or a cutesy wootesly little brown rabbit?"

"Actually", says the little girl, "I don't think my python would notice."

—Nick Leaton, Wed, 04 Dec 1996

History Lesson

Python came on to the scene in the late 80s and implementation began sometime in the last year of the decade

No foo bar

Instead common metasyntactic variables in Python are spam, ham, and eggs

```
>>> 3.1 in a_list
True
>>> 2.7 in a_list
False
>>> a_list.index( ‘molurus’ )
1
```

Tuples in Python

Python also includes a very useful way of handling data called a tuple. A tuple is simply a comma separated sequence of data. A variable can be made a tuple as simply as:

```
a = 1, 2, 3, “four”
```

Quite similarly, you can get back these values in individual variables as:

```
x, y, z, w = a
```

Using tuple Python can accomplish stuff that is usually not found in other languages, such as the aforementioned multiple variable assignments in a single line, or returning multiple values from a function using the return statement.

Flow control:

In Python flow control is accomplished using the if, for and while statements. How they are used will become clear over the following examples:

The *if* statement:

```
  if inp == “yes”:
    print(“You entered ‘Yes’ as
your response.”)
else inp == “no”:
    print(“You entered ‘No’ as
your response.”)
else:
    print(“Invalid response.”)
```

The *for* statement:

The ‘for’ statement in Python differs from that of many other languages. Where you’d have something like:

```
for(i=0;i<11;i+=3)
In Python you’ll have:
for i in range(0,11,3)
```

The range function can be used as range(start, end, step) to get the same outcome.

In Python the for statement can very easily be used to iterate over lists as follows:

```
for item in a_list:
    print(item)
```

The *while* function:

The while function has already been used by us before. It has a simple syntax:

```
while condition_is_true:
    do()
    stuff()
```

Defining functions in Python:

Python has a simple, consistent and easy to understand syntax for defining functions. The following is our previously used Fibonacci sequence code as a function:

```
def fibo(n):
    a, b = 0, 1
    while b < n:
        a, b = b, a+b
    return a
```

Unlike many other languages, functions in Python con not only receive multiple arguments, but they can return multiple results as well! So if in our example above, we – for some strange reason – wanted to return both a and b, we could do that by simply returning them as:

```
return a, b
```

This utilizes a concept of Python called tuples, which we have mentioned before. The result could be retrieved as:

```
c = fibo(10)
d, e = fibo(100)
```

Where c will then be assigned the value of the tuple (8,13) , and c and d will respectively be assigned values of 89 and 144 respectively. An effective example would be a function returning coordinates (x, y) or (x, y, z).

Moving forward with Python

What we have covered here is just the bare minimum of Python, you have a great journey ahead, exploring this marvellous language and its libraries. However to give you a taste of what you can do in just a few minutes, here we will write a simple Python program to input a CSV file and output it as an HTML table:

```
import csv
def csv_to_html(csv_data):
    table = “<table>”
    for row in csv_data:
        table += “<tr>”
        for column in row:
            table +=
“<td>” + column + “</td>”
           table += “</tr>”
       table += “</table>”
    return table
reader = csv.reader(open(“C:/
data.csv”))
html_output = “<html><head>”
html_output += “<title>csv
table</title>”
html_output += “</head><body>”
html_output += csv_
to_html(reader)
html_output += “</body></html>”
print(html_output)
```

While this uses a lot of Python features which we haven’t studied, you will notice that the code is still easy to understand. We have used import to import CSV functionality of the Python standard library. We have used the open function which can be used to open files. Our csv_to_html function reads each item of the CSV file and constructs a table from the data, which it returns as a string. Around that we will pad the standard minimum HTML code and print it.

Right now in this simple example we have hardcoded the file to open, and we are printing the output to screen instead of saving it to a file. With just a little more code, you can extend this program to open any file and output to any file by providing command-line parameters.

Currently you can test this file by running it as follows:

```
python csv2html.
py > htmlfile.html
```

Then open htmlfile.html; of course you will need to have a CSV file at ‘C:\data.csv’ and it will need to be formatted in a standards-compliant way (saving from Excel might not work, use Google Docs).

Conclusion

Python is a great language to begin with, and requires little effort to get started. The wide abundance of libraries available for Python, from networking and GUI, to mathematics and data processing, make it simply to make application with a lot of functionality.

Learning Python won’t go to waste, as it will always find a place in your workflow no matter which language you move on to.

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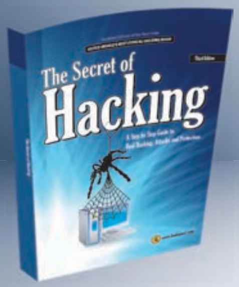

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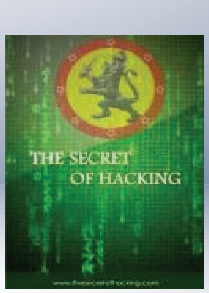

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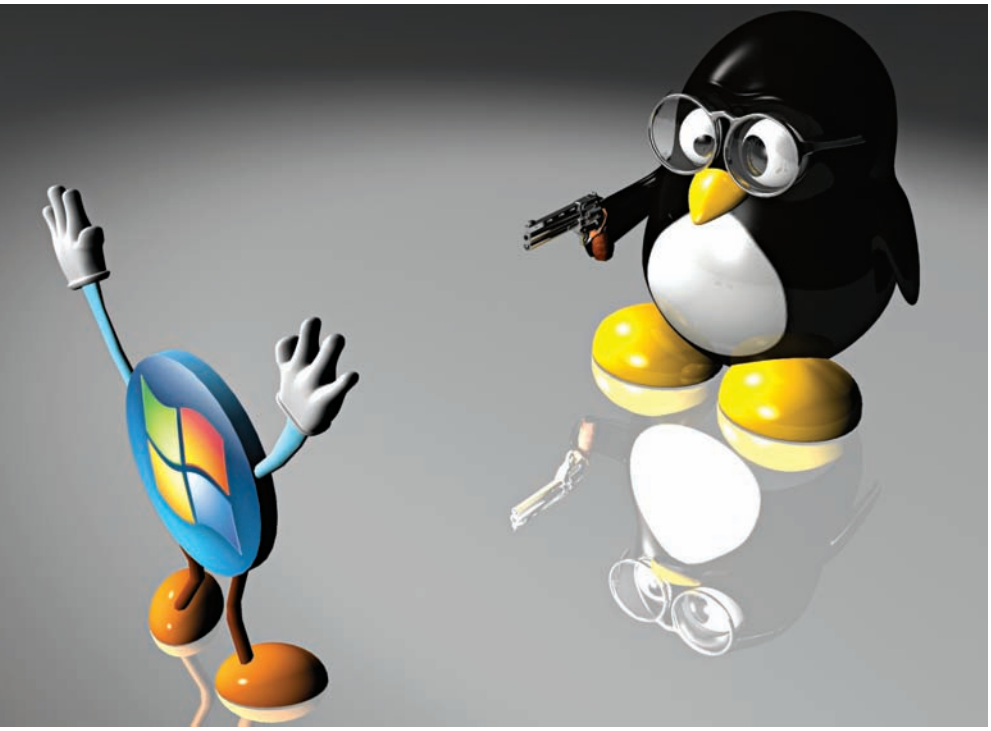


Friggin Fanboys!

Why do we get so predisposed to liking a particular product, software, operating system or even an ideology so much that we end up becoming unpaid advocates easily willing to slit each others throats?

Siddharth Parwatay
siddharth.parwatay@thinkdigit,com

As you would expect, we keep having a lot of heated debates in the Digit office on a daily basis. We're always at each other's throats about things ranging from evergreen debates such as ATI vs. NVIDIA, AMD vs. Intel, Windows vs. Mac, or even arguments on current issues like whether the Tumblr hipsters deserve to die at the hands of 4chan's anonymous legions. Yes, that last bit was about the ongoing war between the anarchist annonymous message board users from 4chan and their denial-of-service attack on Tumblr, the blogging platform populated by pseudo-intellectual, pseudo-net savvy idiots. The start of one such mini world war was when someone dropped a very casual statement in one of our edit meets; something to the effect of - "Winamp is so much better than Windows Media Player". That was all we needed to set aside our agenda for the meeting and launch off into a skirmish over the most OMG-awesome media player in the universe. Soon Foobar, Mediamonkey and Media Play Classic were also thrown into the fray. Some die hard Winamp fanboys who have been using Winamp since the time their playlist consisted of Ace of Base tracks, defended their beloved player, mainly citing usability. "Can you even que songs in Windows Media Player? And unlike WMP, you don't need to add everything to your library to be able to play stuff". Now hold on. Before you take a deep breath to launch off into a counter argument in response to the slightly misinformed statement above, rest assured, WMP fanboys landed on this particular Digit team member like a ton of bricks. So what exactly is it with Fanboyism? Why do we get so predisposed to liking a particular product, software, operating system or even an ideology – razor sharp edges on a Mac Book anyone? In this feature, we'll look at some of the most fanatic fanboy groups that have existed throughout geek history and some newer emerging ones. But what's more important is a look at what forms biases; what are the factors that make us behave like mule-headed zealots. Come on, it's got to do with more than just people like Steve Jobs strutting around on stage in a black turtle neck right?

Psychology of Fanboyism

Wikipedia and Urban Dictionary have some interesting definitions for the phenomenon. The former says "Fanboy is a term used to describe a male who is highly devoted and biased in opinion towards a single subject or hobby within a given field. Fanboy-ism is often prevalent in a field of products, brands or universe of characters where very few competitors (or enemies in fiction, such as comics) exist." If you're a fangirl and are offended about the definition not covering the fairer sex, you should be glad. Only men are pigheaded (read:egoistic) enough to defend their trivial choices with such vigor.

By swaggering about as fanboys whether on the web or in real life, people inadvertently become not connoisseurs (or 1337) but rather unpaid advocates (or evangelists sic) of the company or product they're defending. So lets get down to the fundamental question - what causes the bias?

Familiarity - People familiar with something are obviously predisposed to liking it and extolling its virtues. This is one of the prime reasons why Windows users have trouble transitioning to Linux (when they are forced to) and hence launch off into lengthy litanies on the subject of operating systems.

Elitism and Esoterism - Being a part of a small club exclusive club is something people have been seeking since time immemorial. By owning or using something you believe is not consumed by the masses you feel special somehow. The key word however is believe. There are still some people out there who use IrfanView and think they're doing something extremely out of the ordinary and would stake their life on the application being the best image viewer in the world.

Fear of not knowing better - If you didn't know for example that an Archos or Cowon PMP can outdo an iPod, you'd still say your iPod rocks because you don't want to admit that you didn't know of alternatives. The same way a Winamp fanboy will not admit to liking Foobar because he probably doesn't know the various features of Foobar, and it's easier to dismiss it.

Endowment Effect - This basically means that once you own something (of follow some practice) it becomes a little bit more valuable. What you must understand is that it is more valuable to only you. Everyone else in the world may not necessarily share your love for Jigglypuff from Pokemon.

Justification of choice - It might be the hardcore research you've conducted. Or just the amount of hard cash you've shelled out, every person wants to justify their choice.

Investment - An investment can be in terms of both time and money. Once you've spent some time with a particular thing you have an investment which makes you want to stick to it longer. Besides, no one wants to admit their car's a lemon right.

Case Study

Lets now come back to the case that sparked off this journey into the investigation of Fanboyism. We began with talking about Winamp and Windows Media Player. Several arguments were thrown about, many based in fact, many based in perception, and many were just misinformation. The Winamp fanboy in the team didn't really know that the most recent version of WMP allowed nearly all of the features that he was throwing at his opponent as defence. When the arguments were stricken off one by one the last thing he had to say (like any other fanboy) was "WMP just sucks man". Now at Digit we don't take lightly to biases, even when so minuscule as a media player. So in our typical Digit determination to unravel the truth, we ran a small empirical feature comparison. And what do you know! Both players aren't drastically better or worse. Now there are nerds on Audiophile forums who claim to discern audio quality differences but we'll keep repudiation of such claims to another rant. So why did this now disillusioned member of the team so ferociously defend Winamp? An interesting and often quoted experiment concerning Coke and Pepsi comes to mind. Now pay close attention to this next bit boys and girls. The Baylor college of Medicine gave subjects unmarked glasses of Cola. All through the experiment the subjects were hooked on to a functional magnetic resonance imaging (fMRI) – that's brain scanner to the uninitiated – which showed that many of them liked Pepsi. Next the researchers told them that they'd been drinking Pepsi. Now an interesting phenomenon was noticed. The MRI scans of a fraction of subjects who were Coke fanboys, showed their brains trying desperately to mitigate the pleasure centers. What researchers concluded was that huge neural buildups in their brain genuinely prevented them from admitting their preference for Pepsi, or rather that they altered their wiring to suit a bias. So the next time you feel a bout of involuntary verbal diarrhoea rising up to defend your favourite 'something', remember your rigid neural networks, remember your biases, remember Spock's cold logic and then comment. Our last word - to each his own.

Famous fan boy wars

PC vs Mac

A battle nearly as age old as desktop computing. Through the ages we've witnessed smear campaigns from both sides. Whether its FUD (Fear, Uncertainty, Doubt) tactics or through those awesomely funny ad campaigns, we've enjoyed every moment. But off late haven't you noticed the Mac guy has become this snarky hipster whom you just want to slap. "God I hate that guy" is the only thing that comes to mind.

Firefox v/s well... the world!

Most Firefox users would cringe at the thought of insane load times, but would quickly point out security, extension support, grease monkey scripts in defence of their favourite browser.

Unreal Tournament v/s Quake III

Faster gameplay was what fanboys screamed in favour of Q3, and cool weapons for UT. Although this debate has died out in the rest of the world, we being a little old school (read:fuddyduddies) still have occasional dissing matches. Sambhav was recently heard saying "UT is much more fun to play dude, Q3 is..." and then he proceeded to make a gesture that we cannot describe in print.

Android v/s iOs

One of the newly emerging factions across the world. The Android army let out squeals of joy when the iPhone 4 antenna issue happened. Apple fanboys on the other hand at least for now heavily outnumber them. iPhone users feel it's Ok to own any phone as long as it's an iPhone.

Facebook v/s Twitter

Like the above example, this one is also a relatively new war. And the flame war is catching on in India too. After setting their sights on the Orkutiyas (as they like to call the remaining stragglers of the orkut era) the so called Twitterati now spend a considerable amount of time dissing people who predominantly use Facebook. Funny thing is that all of them still maintain a Facebook profile.

PS3 vs. XBox 360

The comment section for any online review for a Halo or Call of Duty invariably turns into the favourite flame war of the day. PS3s are usually called cheap Blu-ray players while Microsoft's operating system disasters are quoted to beleaguer the Xbox gang.

Penguins v/s well again, the world

No one really gives a $|-|!% about you. No no we're kidding of course. There's an entire article dedicated to this subject elsewhere in the magazine.

Know Your Meme
Dive deep into the history of how Auto-tune elevated to the status of a meme. Explained by none other than Weird Al Yankovic - http://youtu.be/fYzv-AVi78E

The history of Auto-tune
You'd be surprised to know that Auto-tune was developed from technology used for seismic exploration.
http://nyr.kr/7Gtfh

Fun with Auto-Tune

Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

Some of you may not be aware, but Auto-Tune in an integral part of internet culture and pop history. What started off as an automated pitch-correction and audio-processing software created by Antares Audio Technologies to help out lazy, tone deaf singers, soon became a tool for internet comedians and trolls. People started Auto-Tuning stuff all over the place – from news videos to campaign speeches to even Martin Luther King, thus placing Auto-Tune firmly in the hallowed cyber halls of internet memes! Auto-Tune garnered its share of controversy in the entertainment industry too, with some artists (the untalented ones) taking to it like fish to water and some (the more skilled ones we suppose) renouncing it, saying singers should be able to sing without artificial tuning aids. Anyway whatever the stories and back stories, we're only interested in the kind of fun you can have while playing around with Auto-Tune. In this month's Fast Track, we show you how to build a robot. Here, we'll show you how to sound like one! And a musical one at that.

Setting up Auto-Tune

Auto-Tune is a pluggin that installs itself with many sound editing and recording software. In this workshop we're going to be looking at using it with Audacity.

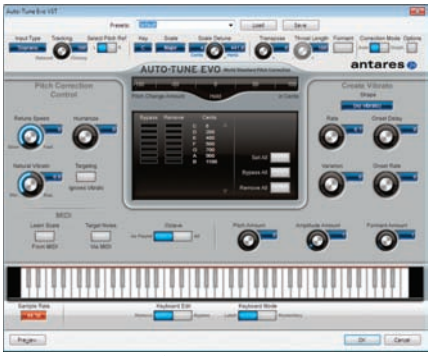
Must watch videos for Auto-tune in Action

Guy having fun with Auto-tune
http://bit.ly/110RcU
Auto-tuned news
http://bit.ly/c0v2b
Auto-tune episode of RJW
http://bit.ly/aONRHr
Best cry ever Auto-tuned
http://bit.ly/bSqFQP
Auto-tuned singing dog
http://bit.ly/d6sSA7

The first thing you need to do is make sure that you have Audacity version 1.3.12 (Beta). You can download it from http://audacity.sourceforge.net/download/ or find it on one of the DVDs. The way that Auto-Tune is going to work is through VST effects supported by Audacity. Go to http://www.antarestech.com/download/update.shtml and download the VTS pluggin for Auto-Tune Evo. Once you have the pluggin you need to unzip and install it into the Audacity's plug-gins folder (default is `C:\Program Files\Audacity 1.3 Beta (Unicode)\Plug-Ins`). The latest version of Audacity is capable of detecting pluggins on its own, but for this you need to go into Edit>Preferences>Effects and check the box for "Rescan VST Effects next time Audacity is started". Now before you restart Audacity it's recommended that you restart your system since the pluggin needs to make some changes to it. Now, when you start Audacity your trial for Auto-Tune should commence and you will have Auto-Tune in your effects dropdown list.

How to Auto-Tune

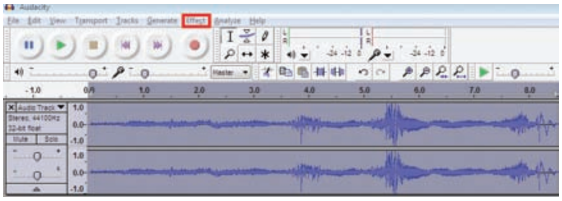
Now that you have everything set up you can get down to Auto-Tuning stuff. To begin, select a sound sample that you wish to Auto-Tune, or you can simply record your voice by clicking the red button. Make a selection of the part you wish to Auto-Tune and go to Effect>Antares Audio: Auto-Tune Evo VTS. This will bring up the Auto-Tune interface.



Auto-Tune interface

Tweaking the Auto-Tune settings

Remember, Auto-Tune's intended use is to correct pitch and key errors i.e. automagically nudging out of tune notes to the right track. But what we're using it for is to create comical effects in our recordings. This sound signature which has now been unofficially dubbed as the Auto-Tuned sound can be achieved by playing around with some of the settings in the interface. The important settings are:



You'll find Auto-Tune under the Effect menu

Humanize which should be kept at 0, Tracking also at 0 i.e fully relaxed so that it makes changes often, and Scale. If you have a little knowledge of music you can achieve spectacular results. These are the settings you need to tweak to make yourself sound like a Musical robot, Akon, or T-pain (of "I'm on a Boat" fame):

```
   Key: C
   Scale: Major
   Retune Speed: 0
   Scale detune: 4 cents, 441.0
hertz
   Humanize: 0
   Vibrato Settings: All 0
```

You can also find a preset settings file on the DVD which you can apply by clicking on Load at the top.

Once you're done playing around with the settings click ok and the effect will be applied to your sample withing a few moments.

So that's it on how to Auto-Tune recorded samples. If you have a studio level sound editing software, you can set Auto-Tune to be a part of the effects chain thereby getting live effects as you speak/sing into the microphone. d

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A booster dose of ... you got it: Speeeeeeeeeed!

Bearing in mind the theme of this month's special issue, here's an added dram of some of the speediest things you will find in today's world. So let your hair down, unwind and soak in some high speed goodness coupled with a few added extras.

Land

The Thrust SSC holds the world land speed record, set on October 15, 1997, when it achieved a speed of 1,228 km/h and became the first car to officially break the sound barrier.

Sea

Built in a Sydney backyard in the 1970's, Spirit of Australia is a speed boat that set the world water speed record (511 km/h) all the way back in October of 1978.

FOSSEYS
KW2N

Air

The Lockheed SR-71 Blackbird holds the official air speed record (since 1976!) for a manned airbreathing jet aircraft with a speed of 3,530 km/h. That's almost three times the speed of sound!

Street

Car

The Bugatti Veyron Super Sport is a 1,200 horsepower beast with an 8 litre W-16 engine. This gas guzzling speed demon holds the current world record at little over 430 km/h.

Motorcycle

A 1,299cc tubro-charged Suzuki Hayabusa powered by 650bhp is now the fastest street bike maxing out at 447 km/h! That's even faster than the Bugatti Veyron!

5112
MPS BF 1350
Garrett

Super computer

New Champion!

Chinese researchers built the world's fastest supercomputer. The Tianhe-1A can perform over a whopping 2.5 thousand trillion floating point operations per second (2.51 PFLOPS)!

Speediest way to jail!

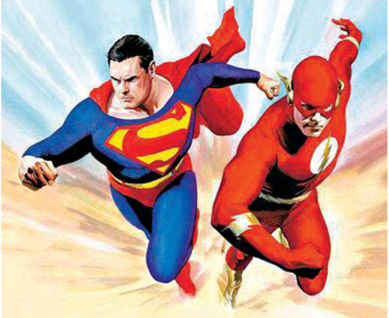
Jailhouse Rock

Remember the Satyam chief, Ramlinga Raju? Well, as of November 1st he has been heading operations of India's first BPO from prison. The convicts are going to get training on data entry for back office operations and we hope this new job opportunity will inculcate in them a turn for the better.

Superman vs. The Flash

Clash of the Titans!

Over in the comic book realm, the Flash vs. Superman race is a much debated affair with supporters of both superheroes having massive flame wars over the forums as to who would win. We say just let them be, they have enough altercations to deal with as it is!



FroYo on OlivePad

Olive Telecom is working on an Android 2.2 release for their tablet the OlivePad. About time, now that Android 2.3 is launching

B&N Nook colour

Barnes & Noble has launched a colour version of their famous Nook e-reader

How we unwind

Slash

The famous guitarist from the band Guns N' Roses has decided to go solo and we are loving it! In his latest self titled album he strums in collaboration with artists such as Ozzie Osbourne, Fergie and Kid Rock to get your head banging to his tunes again.

The Social Network

YOU DON'T GET TO 500 MILLION FRIENDS WITHOUT MAKING A FEW ENEMIES

Definitely a must watch for everyone out there. Though we are not huge fans of Facebook, this movie really appealed to both the geek and the movie buff in us. Great plot and very well presented with attention to fine detail.

FIFA 11

EA SPORTS
FIFA 11

EA have been working hard over the past year and it's very apparent after we played FIFA 11 on the PC. Though not comparable to FIFA 11 on the consoles, the AI fights back this time as hard as any human player would.

digit DIARY

Just when we thought we would put our heads together and get a head start on the special issue for December, all the outstation assignments began pouring in. Rossi had sleepless nights in Singapore, Nimish tasted some seafood delicacies in Thailand and Siddharth was kicking back with some robots and rock music in the BITS Goa campus. The content we had to create had almost doubled and we literally worked every weekend to bring you this special issue. Our nightmares started having nightmares of the looming deadlines and we probably saw more of Excel in this one month than we had ever seen in our lives. And just because we are so dedicated to our jobs, we made it a point to watch The Social Network just so we can write about it in "How We Unwind". Siam is our new intern who we suspect is a vampire simply because he does not seem to consume a morsel of food ... ever! Just kidding, though we did have a great time watching the Yes Men documentary, this month has been one for the record books and we hope you enjoy it!

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Zuck animated!
After a movie and a cameo in the Simpsons, Facebook CEO Mark Zuckerberg will now have an animated series dedicated to him

iPhone Rules
In a recent customer satisfaction survey, the iPhone beat Motorola, HTC, Samsung and Blackberry

LEARN – READ – PLAY - EARN

This special issue is really special for all, with prizes, discounts and vouchers like never before. We have made sure that no one is left out. To celebrate we are giving you a big bag of goodies filled with assured gifts and surprises. Read it to believe it:

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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

Networking at Home

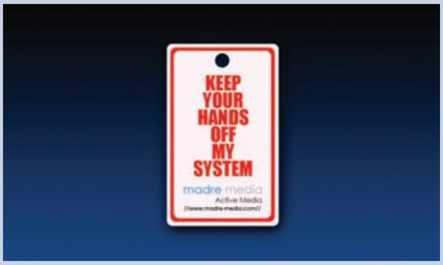
DECEMBER 18
TIME: 1700 HRS

This time we would make you an expert in home networking. Whether it's playing your favorite movie from your PC to a big screen TV or having complete control of your PC from outside your home. Get to know the insides of setting up a wireless router, learn how to access all your machines through one PC. Get to know about Encryption WPA, WEP and more.. So don't miss it for anything.

For details on upcoming webinars and to view past webinars, visit thinkdigit.com/webinars

Wallpaper Art

Bilal Madre, Creative Designer and proud member of Digit community sent us some of his creative wallpapers. One of them is based on public interest warning against smoking issued by Madre Media, a media agency headed by Bilal.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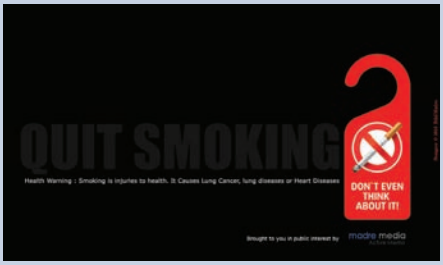
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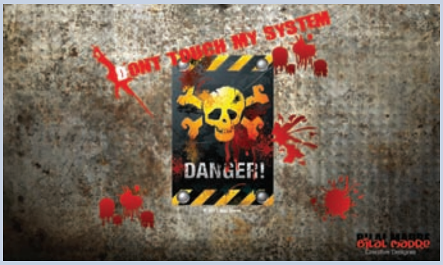
DONT TOUCH MY SYSTEM
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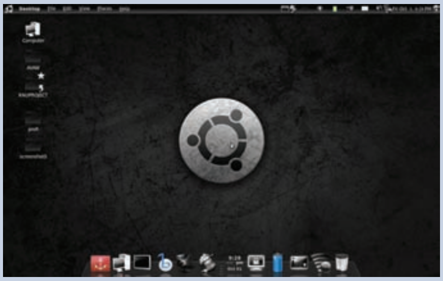
Desktops of the month

We have shortlisted three swanky desktops created by our community members, these were uploaded on our Facebook page.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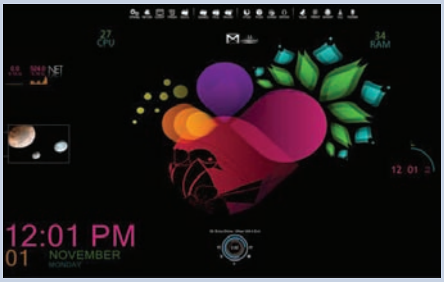
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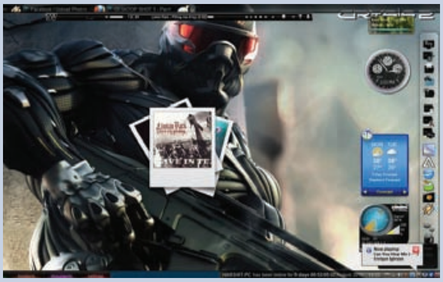
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Genre: RTS
Studio: Firaxis
Publishers: 2K Games
Platforms: PC

SID MEIER'S CIVILIZATION V

THE SKOAR 7

Learn to be kind

Sid Meier has a long-standing and dedicated following of gamers who know exactly what to expect from his games. In this respect, the fifth installment in the long enduring Civilization series is true to its roots. The fundamental game-play rules remains unchanged and those familiar with the series will need little introduction to this game. For the uninitiated, let's take a look at the game's basic game-play mechanics.

Great powers

The single-player mode of Civilization V starts with the player choosing a civilization from an impressive list of 18. Each Civilization is represented by a leader, who also doubles up at the player's avatar in the game. Also, each of these civilizations has unique characteristics that give them bonuses or access to exclusive structures and units. The game allows the player to customize their experience with options like difficulty level, number of opposing players, size and type of world map, and victory conditions. This makes Civilization V one of the most scalable strategy games in terms of challenge and difficulty.

After the game variables are selected, the system generates a map with randomly dispersed resources across the map. Establish your civilization's capital city. From this point on, the main objective of the game is to expand the civilization's influence either through expansion, war, technology, culture or diplomacy, and ultimately achieve any one of the victory objectives.

Paths to domination

What sets Civilization V apart from the rest is the multitude of options available to achieve this. Conquest is the most straight forward way of dominating a map, but there are other, more interesting ways of achieving the final objective. The player can focus on technological advances through research in an endeavor to win the game by being the first to build a spaceship. Alternatively, players can achieve cultural victory by adopting five different social policies and then undertaking the 'utopian project'.

Lastly, one can also reach the end game by pursuing a diplomatic victory where relationship with city-states takes the center stage. City-states are other AI controlled player's on the board that have strategic importance, but are not in contention for power like other civilizations. Having strong diplomatic ties with these states becomes indispensible during the diplomatic victory end-game.

Great value

Completing a single play-through of Civilization V runs into tens of hours—now, multiply that with over 18 different civilizations and various paths to victory, and you have countless hours of game-play. Beyond that the game supports multiplayer over internet and also has LAN support. In addition, a modding toolkit is available as a separate and free download.

Civilization V requires a lot of system RAM, especially towards the end-game. Also during this phase of the game, when the board is completely occupied by various civilizations, waiting between turns is relatively lengthy. These are the only two things that go against what is otherwise a pretty solid game.

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Viva La Fifa

THE SKOAR 8.5

For a while now, the alternate versions of FIFA have impressed. While *FIFA 10* could not improve much upon the excellent *FIFA 09*, iteration number nineteen, aka *FIFA 11*, had some ground to make up. The PC version of *FIFA 11* this year uses the same game engine as the console (PS3/XBOX 360) version. First look at the game shows the immediate jump EA has made to catch up with *PES 10*, a game we migrated to simply because it made *FIFA 10* look ugly. The players look more real than ever. It is impossible to miss the graphical refinement. Incredibly though, the game has almost zero load time for offline matches.

The most advertised feature of *FIFA 11*'s gameplay has been Personality+ – a new system which imparts attributes to each player, making him both unique and similar to the flesh-and-bone version. Personality+ is no ad gimmick. Smiles spread wide upon seeing such lovely imitation, as Rooney dropped down to midfield like his usual self.

Virtual Pro finally makes it to the PC version, where you can create a player of your choice, tweaking down to minutest details. You can build his attributes in offline matches, and then flaunt him online.The commentary of Andy Gray and Martin Tyler is repetitive and largely uninventive.The game modes can be grouped under offline and online categories.

Offline modes

Besides the regular single player matches/tournaments, Be-a-pro mode offers the alternate player-locked gameplay. You can now be the goalkeeper too; though we found it rather boring after the initial rush settled. 'Be a Pro: Seasons' allows you to go through the season with a player of your choice. Despite all that EA boast of, Manager mode is sterile, to say the least. It does not even compare with the Master League of Pro Evolution Soccer. The realism is absent.

Online Modes

FIFA 11 allows 5v5 in online matches on PC, while the console version gets 11v11 this year. Head-to-head game mode allows ranked/unranked 1v1 game. You can either let the game choose a match for you or you can explore the online lounge/friend list and choose your battle. The process of making matches is smooth and we found that most of our matches had 8-10 player pouring in instantly. FIFA 11 gives full value for your money by enabling you to play not just 1v1 on LAN, like the older version. Now upto 10 of your friends can participate in 5v5 matches on the local LAN.

As a simulation, FIFA still has a few more steps to cover. Some specific passing moves can still be used to pull off easy goals, especially as the passing is slicker with complete 360-degree control. But, this does not take away the fact that with most edges chipped away, this is the best, and one of the toughest FIFA yet.

Genre: Sports
Imported by: Milestone Interactive
Publisher: Electronic Arts
Platform: PC, PS3 and Xbox 360
Price: ₹999 (PC), ₹2,499 (PS3/Xbox360)

The Confounding '-phone' Conundrum!

With 'smartphones' rapidly gaining popularity these days, it's getting increasingly hard to clear define lines between different kinds of phones. Here's your simplified guide to understanding what makes a phone 'smart' and its underlying grey area.

On the surface

Smartphones are seen as complex devices, with features that many consumers don't need or want. Feature phones are typically easier to use, cheaper and cater to specific needs. But all this is rapidly changing – feature phones now sport characteristics that had put 'smartphones' of the past in the limelight. In fact, smartphones these days resemble pocket computers that are probably more powerful than some old PCs that you may have lying at home. These days, the price differences aren't as significant as it used to be in the past. The most common reason for not upgrading to a smartphone is its perceived complexity. In reality, the learning curve is not as steep as commonly believed. Features such as touchscreens are increasingly in demand than the underlying OS itself. Since the iPhone was released, every major phone manufacturer is offering a touchscreen model, many of which are not smartphones.

Differences

While feature-focused phones are developed with a specific capability, smartphones include a broader range of features without heavily focusing on a specific purposes such as music, email or social networking.

Smartphone users are rewarded with a wide range of applications that can be added or deleted to create a customised user experience. Nevertheless, it will still take some time to become the norm, especially here in India, hence allowing for this complicated normenclature to confuse us a while longer. The convergence has begun though, with advanced feature phones' becoming synonymous with the basic smartphone, and with the prices becoming more and more competitve, it's hard to tell them apart... even for us!

It's subjective!

Think about it, Nokia's N series was the smartphone of the day, seven years ago. Then came in Apple's iPhone five years ago and today, we have phones such as Motorola Milestone. As time progresses, the definition of what we call a smartphone is bound to evolve and with these shifts in the smartphone market, the terminology used to classify these phones is becoming insufficient, and in our opinion, also inaccurate. For instance, there is a debate about whether the iPhone is a smartphone or glorified iPod with a built-in phone.

A similar shift is taking place in the feature phone category as the traditionally low-end phones are being beefed up to appeal to consumers who want more. In a competitive market where both feature phones and smartphones are competing for market dominance, what is it that sets the smart ones from the not-so-smart? If you were to ask us, we'd say it's subjective.

Gartner too categorises phones as basic phones, enhanced phones, entry-level smartphones and feature smartphones. As smartphones evolve into specialised subsets such as navigation/GPS (Garmin-Asus) or entertainment, consumers will not be asking 'Is it a smartphone?,' but rather 'Is it smart in the way that I want it to be smart?'.

Technology will continue to progress, and the burden is now on consumers to pick and choose features that will make their phone a smartphone. We just can't wait for the day when technology advances to the point where we wear our phones like a custom built in-ear piece and the display sitting pretty right in front of our eyes like cyborgs!

Learning

Smartphone: The definition of a smartphone is evolving. Early models were sold as phones with built-in PDA and modem functionality. But industry analysts say it's the smartphone's operating system allowing users to run third-party applications, that sets it apart. This includes all of the phones running Android, Bada, BlackBerry OS, iOS, MeeGo and Symbian (S60 and now ^3), Windows Mobile and Windows Phone 7 operating systems.

These third-party applications or apps allow users to tailor their mobile experiece to their liking. These apps are often integral to the smartphone experience, and most smartphone users end up getting at least a handful of third-party apps to make the device more useful. Email, calendar syncing, document editing, social networking et al. are essential as well. Features such as GPS, a large touchscreen and 3G/4G antennas are common in smartphones.

Feature phone: Feature phones, on the other hand, are a midway point between smartphones and basic phones. They usually have a limited proprietary operating system, and not all feature phones support third-party software. If they do, they're usually run on Java or BREW and are often standalone items that don't integrate with other features of the phone. Access to features such as email are via the mobile browser and Push mail is often nonexistent. Calendar syncing is often a problem, as is document editing. A lot of feature phones also have social networking abilities now in the form of Twitter and Facebook integration.

Cost

Herein lies the catch. Apart from the fact that smartphones cost an arm and a leg, the smartphones' biggest boon is also its Achilles heel. With apps come data usage, and with data usage comes added cost on your monthly mobile bill. Of course, you may opt out of data and choose to simply go with Wi-Fi, but then the whole point of buying a feature-packed phone is then lost, since you will not have your 'smart' apps working for you on-the-go.

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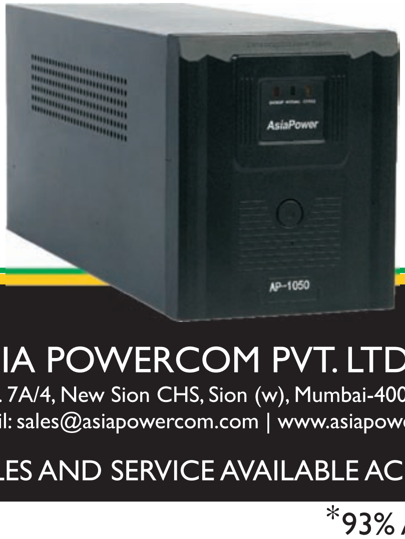

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