

# Conoscenza



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microsoft  
windows





# CONCORDANCE CONCORDANCE

The Sonicwall logo, featuring the word "SONICWALL" in a bold, dark blue, sans-serif font. A red swoosh underline starts under the "S" and curves around the "L".

Sonicwall



Google Chrome  
OS



Assassin Creed  
II



Apple  
Vs  
Android



Prince Of  
Persia



features  
of  
ubuntu



4 G  
Technology



Is Ubuntu the  
embedded OS for  
future?



Hacking Tutorials

Conatus



# EDITORIAL

Conatus, the technical society of Ajay Kumar Garg Engineering College has always been engaged in exploring the field of Computer Science and Information Technology, increasing the awareness among students and opening their new vistas of knowledge.

In order to maintain the continuum, TEAM CONATUS takes immense pride in launching the 9<sup>th</sup> edition of Conoscenza... the tech torrent that addresses the applied and theoretical issues of the technical field.

The ninth edition contains articles overloaded with information like 'Google Crome OS', '4G technology', 'Apple iOS vs. Android', new launched games like 'Assassins Creeds' and very interactive quiz along with dictionary' .....

With this edition we also introduce 'Hacking Tutorials' which are really interactive and easy to learn.

And you are even welcome to the fun side of the computer in the section 'fun-E'.

Your suggestion and recommendation towards creation and increasing the spontaneity of Conoscenza are most welcome. You can contact us at [conatus.akgec@gmail.com](mailto:conatus.akgec@gmail.com)

Further, if you have something good to contribute to CONOSCENZA, you may mail your articles, tips, cartoons or any other creations to [article.conatus@gmail.com](mailto:article.conatus@gmail.com)

TEAM CONATUS  
<http://conatus.in>

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## Google Chrome OS



**Google Chrome OS** is an upcoming Linux-based, open source operating system designed by Google to work exclusively with web applications. Announced on July 7, 2009, Chrome OS is set to have a publicly available stable release during the second half of 2010.

The operating system called Google Chrome OS will be based on their own Web browser Chrome-web browser, will primarily target the smaller PC's known as note books or net books, but will gradually be a system usable on the larger PC's. Google says this is their attempt to recreate the operating system to what it should be.

Speed, simplicity and security are key aspects when it comes to this new operating system. Most of its use will be on the web and as the Chrome web browser it will redesign the underlying architecture of security. The user will no longer have to worry about viruses and security updates any more.



# OPERATING SYSTEM

The operating System will be based on a Linux core, programmed in c/c++ but the windows system will be new. In addition all applications will be made on the web, and will be possible to use on all standard web browsers like Firefox, Explorer and not only on Chrome web browser from Google.

## User interface

Design goals for Google Chrome OS's user interface include using minimal screen space by combining applications and standard Web pages into a single tab strip, rather than separating the two. Designers are considering a reduced window management scheme that would operate only in full-screen mode. Split screens are also under consideration for viewing two pieces of content side-by-side.

## Hardware support

Google Chrome OS is initially intended for secondary devices like notebooks, not a user's primary PC, and will run on hardware incorporating an x86 or ARM-based processor. While Chrome OS will support hard disk drives, Google has requested that its hardware partners use solid-state drives due to their higher performance and reliability, as well as the lower capacity requirements inherent in an operating system that accesses applications and most user data on remote servers. Google Chrome OS consumes one-sixtieth as much drive space as Windows 7.

## Integrated media player

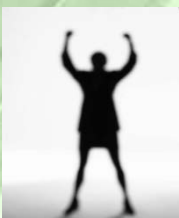
Google will integrate a media player into both Chrome OS and the Chrome browser, enabling users to play back MP3s, view JPEGs, and handle other multimedia files while offline.

## Security

It is an OS which has "hardened" operating system featuring auto-updating and sandbox features that will reduce malware exposure. Chrome OS net books will be shipped with Trusted Platform Module, and include both a "trusted bootpath" and a physical switch under the battery compartment that actuates a developer mode. That mode drops some specialized security functions but increases developer flexibility. Open source nature of the operating system will contribute greatly to its security by allowing constant developer feedback.

## Flash integration

As with the Chrome browser, Google will integrate Adobe Flash into Chrome OS.



THE FIRST EMAIL WAS SEND OVER INTERNET IN 1972

Back to concordance



## SECURITY FEATURE OF UBUNTU



### Built-in security

Ubuntu Server Edition is secure to the core, built upon the renowned security of the Debian operating system. Ubuntu's security team works closely with their Debian and Linux counterparts to make sure that any vulnerabilities that emerge are recognised and dealt with swiftly. Ubuntu's free and fair ethos means that patches are made available to all users, not just enterprise clients or subscribers.

### Uncomplicated firewall

Ubuntu Server also includes easy-to-use security features – a valuable aspect of security technology because it reduces the element of 'user error' in security management. For example, Uncomplicated Firewall asks you to nominate the sole protocol that you want to grant access to your network (SMTP, HTTP etc) – and that's all. Ubuntu Server has no open ports by default, so there is no danger of services being initiated at install without an administrator's knowledge. So simple, and so secure.

### Access control with AppArmor

**AppArmor** is rapidly becoming the default open-source service for mandatory access control. It allows the systems administrator to associate each program with a security profile which restricts the authority and access rights of that program. AppArmor supplements the traditional UNIX discretionary access control with additional rules that control what programs are allowed to be accessed. It can even 'learn' the typical set of rules and turn them into an enforcement standard that can be applied widely.

Another feature that helps you remain secure is the ability to easily create an encrypted private directory on your home server where you can store critical passwords, user names and logins. This is something designed by systems administrators *for* systems administrators and is something only someone working every day with the hassles of secure access provision would think to dedicate time to building. And it's really easy to use.



# NETWORKING

## 4-G TECHNOLOGY



**4G** refers to the fourth generation of cellular wireless standards. It is a successor to 3G and 2G families of standards. The nomenclature of the generations generally refers to a change in the fundamental nature of the service, non-backwards compatible transmission technology and new frequency bands.

The first was the move from 1981 analogue (1G) to digital (2G) transmission in 1992.

This was followed, in 2002, by 3G multi-media support, spread spectrum transmission and at least 200 kbit/s, soon expected to be followed by 4G, which refers to all-IP packet switched networks, mobile ultra-broadband (gigabit speed) access and multi-carrier transmission. Pre-4G technologies such as mobile WiMAX and first-release 3G Long term evolution (LTE) have been available on the market since 2006 and 2009 respectively.

### Objectives:

4G is being developed to accommodate the quality of service (QoS) and rate requirements set by further development of existing 3G applications like mobile broadband access, Multimedia Messaging Service (MMS), video chat, mobile TV, but also new services like HDTV. 4G may allow roaming with wireless local area networks, and may interact with digital video broadcasting systems.

The 4G working group has defined the following as objectives of the 4G wireless communication standard:

1. Flexible channel bandwidth, between 5 and 20 MHz, optionally up to 40 MHz.
2. A nominal data rate of 100 Mbit/s while the client physically moves at high speeds relative to the station, and 1 Gbit/s while client and station are in relatively fixed positions as defined by the ITU-R,
3. A data rate of at least 100 Mbit/s between any two points in the world,
4. Peak link spectral efficiency of 15 bit/s/Hz in the downlink, and 6.75 bit/s/Hz in the uplink (meaning that 1 Gbit/s in the downlink should be possible over less than 67 MHz bandwidth)
5. System spectral efficiency of up to 3 bit/s/Hz/cell in the downlink and 2.25 bit/s/Hz/cell for indoor usage.
6. Smooth handoff across heterogeneous networks,
7. Seamless connectivity and global roaming across multiple networks,
8. High quality of service for next generation multimedia support (real time audio, high speed data, HDTV video content, mobile TV, etc.)

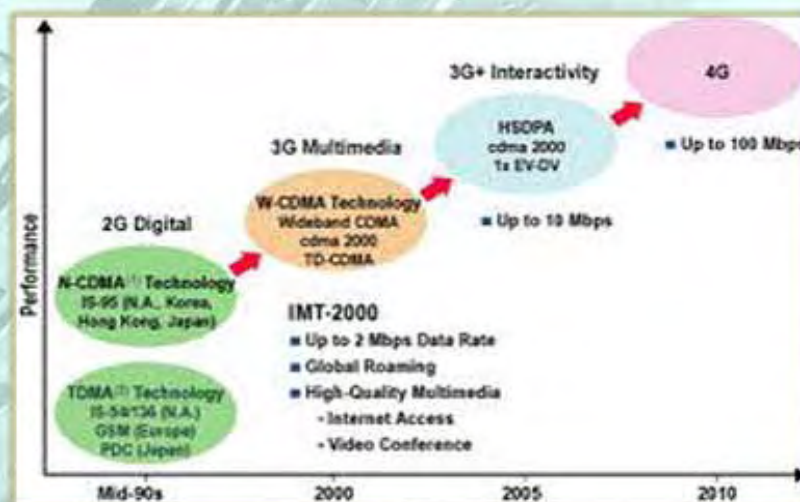


# NETWORKING

10. Interoperability with existing wireless standards, and
11. An all IP, packet switched network.
12. Femtocells (home nodes connected to fix Internet broadband infrastructure)

## IPv6 support

Unlike 3G, which is based on two parallel infrastructures consisting of circuit switched and packet switched network nodes respectively; 4G will be based on packet switching *only*. This will require low-latency data transmission. By the time that 4G is deployed, the process of IPv4 address exhaustion is expected to be in its final stages. Therefore, in the context of 4G, IPv6 support is essential in order to support a large number of wireless-enabled devices. By increasing the number of IP addresses, IPv6 removes the need for Network Address Translation (NAT), a method of sharing a limited number of addresses among a larger group of devices, although NAT will still be required to communicate with devices that are on existing IPv4 networks.



google can be queried in 26 languages



# NETWORKING

## SONICWALL



Outdated stateful inspection methods are no match for today's firewall-evasive attacks. SonicWALL TZ, NSA, and E-Class NSA appliances (below) are engineered to reduce risk, cost and complexity by integrating state-of-the-art firewall, UTM, wireless and VPN technologies to deliver comprehensive protection and maximum performance.

SonicWall's network security firewall solutions feature patented high-speed Reassembly-free Deep Packet Inspection (RFDPI) to protect against internal and external attacks and application vulnerabilities. A cost-effective, object-oriented integrated suite, RFDPI is not limited by file size or concurrent traffic volumes. Utilizing ultra-high-speed multi-core architecture, SonicWALL RFDPI firewalls deliver industry-leading price/performance.

SonicWALL's Unified Threat Management (UTM) solutions employ an expanding array of seamlessly integrated services featuring gateway anti-virus, anti-spyware, intrusion prevention, enforced desktop anti-virus, content filtering and application firewall. SonicWALL's continuous real-time threat protection and dynamic signature updates, ensuring the strongest defense posture with minimal IT intervention.

**SonicWALL's Secure** offers the full range of the SonicWALL Network Security appliance portfolio which includes solutions for home/small office all the way through to the largest enterprises, including ISPs

### SonicWALL's SSL VPN Secure Remote Access

Today, your office is where you are: at home, at the airport, at a café. Customers, partners and contractors need access to your business from anywhere. And uncertainties ranging from natural disasters, pandemics and terrorism to fires, power outages and hard drive crashes increase the need for secure remote access to mission-critical resources. SonicWALL SSL VPNs offer secure remote access to end points beyond IT control, without the costly overhead needed to deploy and maintain per-seat clients. SonicWALL SSL VPN delivers easy, scalable SSL VPN solutions to fit every organization, from small- to mid-sized businesses to the largest global enterprise.

SonicWALL SSL VPN solutions can be configured to provide users with simple, secure and clientless remote access to a broad range of resources on the corporate network.



# NETWORKING

## SonicWALL Email Security / Protection

SonicWALL Email Security is anti-spam, anti-virus, anti-phishing, policy and compliance management e-mail protection solution. It is available as a hardened appliance or as Windows software, SonicWALL Email Security protects inbound and outbound e-mails. SonicWALL Email Security delivers superior e-mail protection that is easy to install, easy to manage, and easy to own. There is simply no easier way to get complete e-mail protection today.



About one third of CDs are pirated



# LATEST UPDATES

## **Latest development a quantum leap for computers:**



A quantum computer can process information in seconds, solve complicated problems which will take a human being year to sort out, perform multiple functions at the same time, operate in the most challenging environments, and protect data from the most skilful hackers. So, we can say Quantum computer is like a Superman's computer.

Also, the new quantum computers would be capable of solving large mathematical problems and therefore extremely useful for decoding and encoding secret and confidential information, but their arrival could even spell trouble for Internet users. Current methods of encrypting secret or personal data, like the RSA public key encryption algorithm currently used in web browsers, would be nearly worthless in that case.

Another field in which quantum computers can leave its marks is to provide Computers with a Machine translation capability. This could offer a viable option to those wishing to move on to an environment so that thousands of verses in English could be converted into regional languages on the trot.

Physicists and researchers have been working for years to come up with a super efficient quantum computer. The goal is a bit nearer with the development of the most basic elements for storing information known as qubits, short for quantum bits. A milestone was achieved when scientists managed to get the qubits to communicate over a small distance. Yale University has also successfully used microwave photon to move data across two stationary quantum bits. These little steps in science are phenomenal for it makes the dream of building a quantum computer so much nearer to mankind.

### **Quantum Leap in Computing**

Federal researchers have created the most robust quantum computer ever, indicating that the concept is rapidly moving from theory to practice and could create the most powerful computing devices ever dreamed of. If the trend of increasing performance continues, a quantum computer that triples today's fastest computers could be built in five years.



# LATEST UPDATES

So, Right now it's impossible to say if we can scale technologies. Quantum effects give sub-molecular computers great power. Still, quantum computers may never be general-purpose computing devices and are more likely to be targeted at massive number-crunching problems like encryption and decryption, searches of huge databases and simulations of quantum physical states.

The first 3-qubit quantum computer was created just 18 months ago at the Department of Energy's Los Alamos National Laboratory in New Mexico. They used a test tube of trans-crotonic acid and a powerful nuclear magnetic resonance spectrometer to create the 7-qubit (pronounced kew-bit), or quantum bit, quantum computer. This quantum computer was created by manipulating the nuclei of seven molecules in a test tube of trans-crotonic acid, hence 7-qubit. Like a spinning magnet, the molecules' nuclei can be lined up with electromagnetic pulses from the nuclear NMR spectromotor, which is a specialized version of the imaging devices commonly used in hospitals.

But as we all know there is always a limit, so the NMR approach may run out of steam at 15 qubits because key interactive effects between the quantum particles start to disappear.

D Wave has developed a quantum computer which was given three problems to solve: searching for molecular structures that match a target molecule, creating a complicated seating plan, and filling in Sudoku puzzles. For now, D-Wave's device is slower than an inexpensive home computer, but a potentially faster 1,000-qubit version could be available by the end of next year.

## **The Way Quantum computers are supposed to operate:**

Using nuclear magnetic resonance (NMR) techniques, researchers have now created a seven-qubit quantum computer within a single drop of liquid and this could lead to computers that use quantum bits, or qubits, for information processing. The laws of quantum physics allow quantum particles to exist in multiple states; quantum particles can represent both a zero and one at the same time. This concept allows bits, in this case qubits to be encoded at speeds beyond what is possible in a classical digital computer.

The quantum computer uses NMR to manipulate particles in the atomic nuclei of molecules of transcrotonic acid, a simple fluid consisting of molecules made up of six hydrogen and four carbon atoms. The particles are like tiny bar magnets spinning in a magnetic field that can be "lined up" by applying an electromagnetic pulse from the nuclear magnetic resonance device. This lining up of spinning particles in positions either parallel or counter to the magnetic field allows the quantum computer to mimic the information encoding of bits zeros and ones in classic digital computers.



# LATEST UPDATES

## Apple iOS4 vs. Android 2.2



VS.



**Which is the better mobile OS: Apple's iOS 4 or Google's Android OS 2.2?** Let us take HTC Nexus One for Android testing and an iPod Touch 3G for iOS 4 testing, as they're comparable in their performance capabilities, Wi-Fi is used for network testing to factor out carrier cellular network differences. Note that HTC and Motorola offer additional capabilities in their devices through UI overlays and custom apps; the focus here is on the native Android OS 2.2 capabilities furnished by Google.

### **Death match: Email, calendars, and contacts**

If you look at the specs, Android OS 2.2 and iOS 4 look to be evenly matched: Both can connect to Exchange, IMAP, POP, and Gmail accounts; make and synchronize appointments; and manage contacts. Both allow for "push" synchronization with Exchange. Both preserve your Exchange folder hierarchy for mail and make navigating among folders a snap. Also, setup is easy.

**Basic email usage.** Android has a poorly chosen visual scheme for email lists: It uses white text on a black background (iOS 4 uses the inverse colour scheme). In sunlight, it's all but impossible to read the screen on an Android device, while in the same light an iOS device's display of the email remains readable, even if somewhat washed out. You won't be checking email on the beach with an Android device.



# LATEST UPDATES

There's now a unified inbox for all your email accounts, then a separate list of your accounts so that you can go to their traditional hierarchy (for Exchange and IMAP accounts

**Email management.** Once you're in your folders, though, iOS 4 is easy to use for most operations, such as deleting messages and moving messages to folders. You can easily search for mail, reply or forward, delete, and select multiple messages, but you can't select or deselect all messages.

On the other hand, Android OS 2.2's folder navigation isn't friendlier, though you don't have to wade through the double lists. By default you get an all-message view, and if you want to go to a specific folder or see just the inbox, you must click the Menu button and then tap the Folders icon to get a list of folders. Also, Android uses a separate app for Gmail accounts -- an unnecessary division of labour.

Android OS 2.2 is on a par with iOS 4 when it comes to mail management. However, you have to use the Menu button when in a message to forward it -- an extra step compared to iOS 4. Both iOS 4 and Android let you mark a message as unread, though Android requires you do it via the Menu button's options. You can search your email in Android, but not from within the Email application; it's part of a general device-wide search, which is more work than iOS 4's method. Like iOS 4, Android OS 2.2 has no select-all capability for email.

iOS 4 remembers the email addresses of senders you reply to, adding them to a database of contacts that it looks up automatically as you tap characters into the To and Cc fields; Android doesn't do that. Both operating systems let you add email addresses to your contacts list by tapping them.

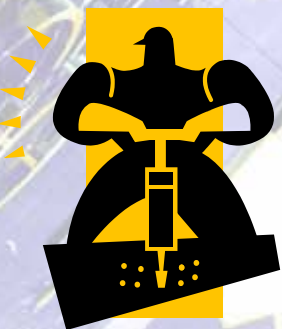
iOS 4 did add a message threading capability, which organizes your email based on subject; you click an icon to the left of a message header to see the related messages. That adds more clicking to go through messages, but it does remove the effort of finding the messages in the first place. Android OS 2.2 has no similar capability



# LATEST UPDATES

## Test Center Scorecard

	Web and Internet support 20%	Business connectivity 25%	Application support 15%	Security and management 25%	Usability 15%	Overall Score
Apple iOS 4.0	9	7	9	7	9	8.0 VERY GOOD
	20%	25%	15%	25%	15%	
Android 2.2	8	5	7	5	6	6.1 FAIR



76% softwares used in India are pirated.

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## Assassin's Creed .....Brotherhood

**Assassin's Creed: Brotherhood** is a third person action-adventure video game in development by Ubisoft for Microsoft Windows, PlayStation 3 and Xbox 360. The game is set to be released in November 2010. It is a direct-sequel to **Assassin's Creed II** (but is not **Assassins Creed III**) with Ezio returning as the main protagonist. It is the first game in the series to feature multiplayer mode.

### Game play

**Assassin's Creed: Brotherhood** will keep its sandbox style game play in an open world Rome. Like the previous installments, the game play's core mechanics are based on Parkour movements, crowd-using stealth, assassinations and melee fighting system. However for the first time in the series, the game offers a multiplayer mode.



**Single player** : The player once again controls Ezio Auditore through the genetic memory of Desmond Miles using the Animus (which is the game's memory interface). As a Master Assassin Ezio will have to reorganize his Brotherhood in Rome to fight against the Templar's. Hence the new management system: the player can recruit new members, send them to assignments or call them for support during missions (if they are not already occupied). Tasking the novice Assassins is essential to make them gain experience, and the player will be able to customize them as well as giving them specific weapons. Although Ezio is a Master Assassin in this episode, his progression is not over and he will also have to master new gadgets.



# GAMES

The player will also have to rebuild Rome in ruins due to the corrupted ruling of the Templars over the Papal States, concentrating all the wealth in the Vatican. Just like the village of Monteriggioni in **Assassin's Creed II**, the player will be able to invest in the city to see it evolve and unlock rewards. This feature is fully integrated in the storyline making Ezio and Rome progress simultaneously. Rome is the biggest city ever created after the first two installments and includes five various districts: Vatican, Downtown, Tiber, Country and Antique. No other cities or locations than Rome have currently been announced as explorable, although Monteriggioni will appear at the beginning of the game, and Florence has been seen in multiplayer screenshots.

Horses play a larger role in **Brotherhood**, not only used as a means of transport (inside the city for the first time) but as a component of acrobatic sequences and advanced combat as well, allowing ranged weapons to be used while riding them. There will be environmental objects like the flower pot in **Assassin's Creed II** to move faster inside the city such as pulleys to quickly climb up high locations.

## Multiplayer

The players are Templars in training at the Abstergo facility. They use the animi (plural for animus) seen at the beginning of **Assassin's Creed II** to access memories of Assassins and then to acquire their skills using the "bleeding effect." There will be various game modes. One of them is called "Wanted": six to eight players are dropped on a map of medium size where they kill each other. However, the rule is not the one of a standard deathmatch but rather a cat-and-mouse game. Each player is given another player as a target. The goal is to find and kill a target without being seen or killed by the player's own predator. If the player breaks cover, the target will be warned and will run away, starting a chase sequence.

Aside from the characters and the "Wanted" game mode, a few more specifics have been revealed: eight characters have been confirmed (Courtesan, Hunter, Barber, Priest, Banker, Executioner, Doctor and Merchant) and two special characters, the "Harlequin" available with a pre-order at GameStop, and the "Officer", available with a pre-order at Best Buy.

It is confirmed that the multiplayer experience can be accessed through Xbox Live, PlayStation Network and also on the PC. The multiplayer beta will be exclusively for PlayStation 3. It even received recognition from Game Trailers when they awarded it the **Best Multiplayer Game** of the show.



First harddisk available was of 5MB

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# GAMES

GAME?

## Prince of Persia

### ... The Forgotten Sands

**Prince of Persia: The Forgotten Sands** is a multi-platform video game produced by Ubisoft which was released on May 18, 2010, in North America and on May 20 in Europe. The games mark a return to the storyline started by **Prince of Persia: The Sands of Time**. **Prince of Persia: The Forgotten Sands** is the title of four separate games with different storylines. The main game was developed for PS3, Xbox 360, and PC, while other three are exclusive for PSP, NDS, and Wii.



### Storyline

**The Forgotten Sands** returns to the storyline established by **Prince of Persia: The Sands of Time**, and concluded by **Prince of Persia: The Two Thrones**. On December 14, 2009, Ubisoft UK released the first details of the story on their official video portal

The game is an interquel, taking place in the seven year gap between **Prince of Persia: The Sands of Time** and **Prince of Persia: Warrior Within**. The Prince character is supposed to be a cross between the character models in these two games. He is again voiced by Yuri Lowenthal



# GAMES

The plot of main game, developed for PS3, Xbox 360, and PC, begins as the Prince is riding through a desert on his horse, on a quest to see his brother, Malik, and learn about leadership from him. When the Prince arrives at Malik's kingdom, he finds it under attack by an army who he proposes wants a treasure buried deep within. The Prince infiltrates Malik's kingdom, and meets up with Malik in the treasure vaults.

Here, Malik proposes that he is fighting a losing battle, and needs to rely on a last resort or be forced to retreat. The Prince strongly objects, but Malik releases Solomon's Army using a magical seal. Solomon's Army is an assortment of different creatures, all made of sand, supposedly enough to outnumber the grains of sand in the desert. The Prince and Malik both manage to obtain halves of the seal used to unleash the army, protecting them from being turned into sand statues, which was the fate of the rest of the kingdom. The seals also allow them to absorb the power of the enemies they defeat.

Malik is separated from the Prince, who finds a portal to the domain of Razia, a Djinn. Razia tells the Prince that the only way to reimprison Solomon's Army is to reunite both halves of the seal used to bind them. Razia gives the Prince special powers, and has him set out to find Malik, and the other half of the seal. When the Prince finds Malik, he isn't interested in stopping the Army of Solomon, but instead wants to destroy it and use its power to become a more powerful leader. The Prince finds Razia again, and asks her about this, and she proposes it's an effect of absorbing too much of the power of Solomon's Army, and that the power she gave the Prince offered him protection from this effect.

The Prince again sets out to find Malik, but this time to forcibly take his half of the seal, but Malik is stronger and manages to escape. Pursuing Malik again, the Prince finds Ratash, the leader of Solomon's Army, pursuing anyone in possession of the seal. After the Prince outruns him, he concludes Ratash must now be chasing Malik, and so sets out to aid him. The Prince arrives in the throne room to find Malik and Ratash fighting, and he aids Malik. The Prince and Malik seem to kill Ratash, and Malik absorbs his power, shattering his half of the seal. Malik then runs off, seemingly in a hysterical fit, using some of Ratash's powers to escape.

The Prince pursues him, and again finds Razia instead. Razia explains that Ratash cannot be killed by any ordinary sword, and that what actually happened was quite different than what the Prince saw. Ratash has actually killed Malik, and possessed his body. The Prince doesn't believe this, and sets out to find the Djinn Sword, which Razia says can kill Ratash.

Along the way, the Prince chases Ratash, witnessing Ratash gaining so much power back, that he can mutate Malik's body back to his original form. The Prince loses a battle to Ratash and, convinced his brother is in fact dead now, finds the Djinn Sword. With this sword, the Prince again sets out to find Ratash. When he does, Ratash is now gigantic, literally fed by the sandstorm which has come over the palace.



# GAMES

## GAMES?

Despite this, the Prince uses the sword to kill Ratash, and when the sandstorm and battle both subside, he finds Malik lying next to him, dying. Malik says to tell their father that Prince will be a mighty leader, then dies. The Prince then sets out to inform his father of Malik's death.

### Game Play

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**The Forgotten Sands** is available on all major gaming platforms and is to "feature many of the fan-favorite elements from the original series as well as new game play innovations", according to a press release from Ubisoft. The DS, PSP and Wii versions are developed separately and will feature different gameplay than the Xbox 360, PlayStation 3 and Windows versions. With Ubisoft's feature Uplay, players may unlock Ezio, the main character from **Assassin's Creed II**.

In the PS3 \ Xbox 360 \ PC game, throughout the game the Prince learns new powers. The biggest new feature is the addition of elemental powers, which bring a new dimension to the core game play, because of the way these powers interact with each other and the Prince's other abilities. There are four core powers in the game: Fire, Ice, Wind and Earth. Each of them translates to a different power during combat, but Razia also gives the Prince the ability to "solidify" water fountains and turn them into climbable columns. Besides these core powers, there are also minor powers that can be purchased to enhance the Prince's abilities from a djinn named Razia. These minor powers include a shield and the power to summon small tornadoes. The combat in the game is similar to combat mechanics found in **The Sands of Time**. The Prince will be able to fight multiple enemies in one battle, up to 50 at once. An important part of the combat is "crowd control" and evading enemies, as well as combos. There is no blocking and there are no quick time events in the game.



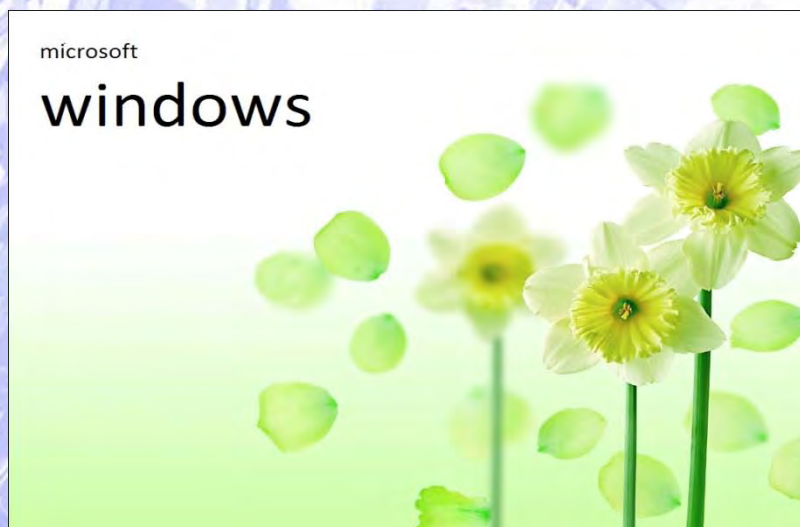
Ethernet is the registered trademark of Xerox.



# HACKING

## Change the Picture that Appears on the WIN 7 Startup Screen

Many people, me included, would prefer to see a more interesting splash screen (also called the startup screen) than the default gives you on start-up. You can change your splash screen to any of hundreds that have been created, or make one of your own—for example, with your picture or company logo on it. As for example have a look at the following screen:



Once you've found the image you want to use as your splash screen, download it. It will be downloaded as a .zip file. I create a general folder for all my boot screen files, called *C:\Bootscreens*, and then for each boot screen I download I create a new folder—in this instance, *C:\Bootscreens\myscreen*.

And the most important thing is that don't forget to make system restore point by going into the **control panel>performance and maintenance>system restore**.

The *ntoskrnl.exe* file is an executable file that contains the XP boot screen. During the boot process, WINDOWS executes this file, found in *C:\Windows\System32*, which in turn displays the boot screen graphic. So, to change your boot screen, replace your existing *ntoskrnl.exe* file with the one you want to.

You might think that all you have to do is copy the new *ntoskrnl.exe* over the existing one and then restart your computer in order for the changes to take effect. That's not quite the case, though. You first have to get around a feature of Windows 7 that protects system files from being overwritten.



# HACKING

Windows File Protection automatically replaces certain files with the original 7 version of the file if they've been replaced, and `ntoskrnl.exe` is one of those files. However, if you make the change in Safe Mode, Windows File Protection won't kick in and you can safely copy the file.

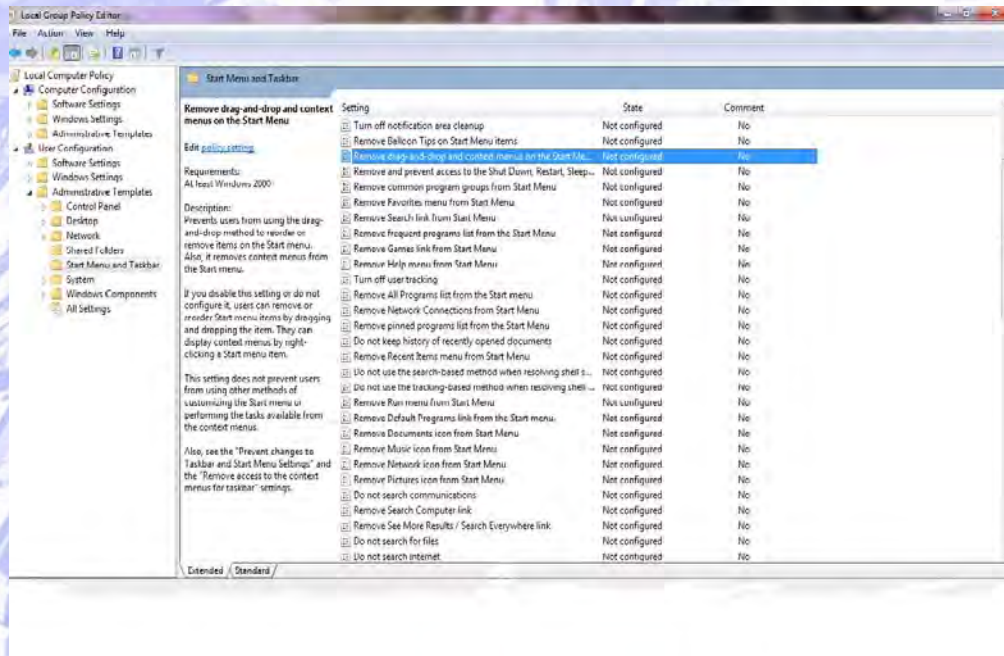
Reboot your PC and **press F8** immediately to get into Safe Mode. Now go to the `C:\Windows\System32` folder and find the `ntoskrnl.exe` file. Copy it to another folder or rename it as a backup so that you can revert to it when you no longer want to use your new boot screen, or if something go wrong when you install the new screen. Now copy the new `ntoskrnl.exe` file into **`C:\Windows\System32`**. (If you have to use the `ntoskrnlSP1.exe` file, rename it to `ntoskrnl.exe` first, and then copy it over.)

Reboot your computer again but don't go into **Safe Mode** this time. Your new splash screen will now appear every time you start your PC. To revert to your old splash screen, repeat the steps, copying your original `ntoskrnl.exe` file over your new one.



# HACKING

## Hack the Start Menu and Taskbar



**Figure: Customizing the Start Menu and Taskbar in the group policy editor**

WINDOWS 7 Group Policy Editor does more than just customize the Control Panel. It gives you control over many aspects of 7's interface as well—in particular, the Start Menu and Taskbar. In fact, it gives you quick access to over three dozen separate settings for them.

Run the Group Policy Editor by typing **gpedit.msc** at the Run prompt or command line.

Go to **User Configuration\Administrative Templates\Start Menu and Taskbar**.

As you can see in figure the right pane displays all the settings you can change. If you click on the extended tab at the bottom of the screen, you'll be shown a description of the setting that you've highlighted, along with an explanation of each of the options. Settings you can customize include showing the My Pictures icon, the Run menu, and the My Music icon on the Start Menu; locking the Taskbar so that it can't be customized; and many others. To change a setting, double-click on it and choose the options from the menu it displays.



# HACKING HACKING

There's not room in this hack to go into detail about each of the settings you can change, So I'll tell you about some of my favorites. I've never been a big fan of My Documents, My Pictures and My Music. In fact, I never use those folders, so there's no point having Them on the Start Menu. The settings in the Group Policy Editor let you get rid of them. If you share your PC with other people, the Group Policy Editor is a great way to make sure that no one can change the Start Menu and Taskbar except you. So when you have the Start Menu and Taskbar working the way you like, they'll stay that way until you want to change them.

Enable "Prevent changes to Taskbar and Start Menu Settings and no one will be able to Change their settings except you. Select "Remove Drag-and-drop context menus on the Start Menu and no one except you will be able to remove or reorder items on the Start Menu. You can even stop anyone else from shutting down Windows by Selecting "Remove and prevent access to the Shut Down command."

(Of course, they can still shut down your PC the old-fashioned way: using the power switch.)

Among the many entries here are a lot of pointless ones, by the way. You can remove the Log Off entry on the Start Menu, for example, which certainly isn't high on my list of must-haves. But who knows, you may want to do that or any of the many other changes the Group Policy Editor allows. Go in there yourself and muck around; you'll find plenty to change



An average American is dependent on 250 computers.

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# Is Linux the Embedded Operating System

## Of the Future?



Need an embedded operating system? Get a long notepad and a pot of coffee, because there are literally hundreds to choose from. Custom microkernel's, UNIX look-alikes ... there's even a couple of embeddable MS-DOS clones out there. Microsoft has tried twice to bring order and a dominant player to the market--first with the marginally successful Windows CE, then with Embedded Windows NT.

But it may actually be Linux that ascends to the top of the heap in the \$3.5 billion-per-year market for embedded system development tools. Enthusiasm for embedded Linux systems has grown dramatically over the past two years even Linus Torvalds has gone on the record to say that it should be a priority for the open source OS. Roughly speaking, an embedded device is anything internally sophisticated enough to be considered a computer, but which does not look like a traditional server or desktop machine. Often, but not always, embedded devices are crafted for a single or a very narrow range of uses. They range from hands-off, "black box" devices like an Internet router or a network-attached storage device, to things that touch consumers every day, like cash registers or the credit card reader at a pay-at-the-pump gas station

Despite some initial criticism that the full-size version of Linux could never be shoehorned into the tight requirements of an embedded device, a number of embedded Linux solutions are cropping up. The TiVo set-top TV box, for example, a joint effort from Philips Electronics and startup TiVo, Inc., of Sunnyvale, Calif., runs Linux.

The advantages Linux offers for embedded systems are largely the same strengths that make it popular as a server operating system: low cost, high reliability, and the availability of the source code. And the large number of programmers at work on core Linux OS development, as well as the even greater number of Linux-literate developers, make the task of improving a device's operating software and finding qualified application programmers considerably easier.



# BLOGGER'S SPACE

## It's All in the Tools

The distinction between the familiar mainstream Linux distributions and the new breed of embedded Linux amounts in most cases to the addition of proprietary development tools. The commercial version of Lineo's Embedix, for example, features closed-binary tools that greatly expand the configuration options of the kernel, making it easier to "granularize and cut up" Linux for specific embedded applications. "The Linux kernel and all the associated pieces are open source, but the technology added to it that makes it possible to shrink the operating system and fine tune it to a very high level is obviously proprietary,

Whether the tools are proprietary or open source, the real question for embedded Linux adopters is: will the Linux development community respond to the world of single-board computers and "black boxes" the way they have to Linux's traditional environments?

One thing standing in the way is the hardware. For the desktop and server version of Linux, says Volker Wigand, CEO of SuSE Inc., "the underlying hardware is the PC, which already have. For the embedded market embedded devices, evaluation kits ... usually, you have to have a reason to work on embedded Linux."

But with major electronics companies such as cell phone manufacturer Nokia turning to ROM-based Linux to drive their consumer and industrial devices, anything is possible. "Never underestimate the programming bandwidth of over 12,000 open source developers around the world," says Lineo's Drabik. And if they adopt the embedded market with the same enthusiasm they've shown for Linux on servers and desktops, embedded computing could be just another step for Linux on the path to World Domination.



Google uses over 10000 network computers to crawl the web



# FUN ZONE

## COBOL Programmer's Swing

A COBOL program never turns out right  
Though you may labor far into the night  
And though you work until your dying day  
It never will be quite okay-ay-ay-ay  
And when you think that all the bugs are gone  
The fact is you are likely very wrong  
And when you finally have it going straight  
It's .... too.... late!!!

## Beautiful Program

Beautiful program  
please run for me.  
I've tried you in BASIC,  
FORTRAN and C.  
Beautiful program,  
You've errors galore.  
And each time I run you,  
You're swapped out of core.

## Jokes

1)

This definition of "**compiler**" must rank as the BEST of the possible wrong answers.

"A compiler's primary function is to compile, organize the compilation, and go right back to compiling. It compiles basically only those things that require to be compiled, ignoring things that should not be compiled. The main way a compiler compiles, is to compile the things to be compiled until the compilation is complete."



# FUN ZONE

2)

A computer salesman, a hardware engineer, and a software engineer are driving in a car together. Suddenly the right rear tire blows out, and the car rolls to a stop. Our three heroes pile out to investigate.

The salesman announces sadly, "Time to buy a new car!"

Says the hardware engineer, "Well, first let's try swapping the front and rear tires, and see if that fixes it."

Replies the software engineer, "Now, let's just try driving the car again, and maybe the problem will go away by itself."

3)

...about the doctor, engineer, and programmer who were debating what the world's oldest profession was. The doctor said that medicine was the oldest because the Lord performed surgery in the removal of Adam's rib. The engineer countered that before that act, the Lord had performed feats of engineering by creating the earth and heavens from nothing.

The doctor conceded that the engineer was right and that engineering was indeed the oldest profession. But then the programmer interjected that programming was even older. He was chided by both the doctor and the engineer saying that engineering had to be the oldest, because before the Lord engineered the earth and heavens, there was nothing, only the Great Void, only Chaos!

The programmer simply smiled and said: "Where do you think the Chaos came from?"



**The floppy disk was patented by allen shugart in 1946**



# DICTIONARY

## INTERNET

A vast worldwide network of computers, accessible to anyone with a computer, a modem, and a phone line. Provides access to e-mail and the World Wide Web. The Internet is maintained by the major Internet service providers such as MCI WorldCom, Sprint, GTE, ANS and UUNET.

Many people think the Internet and the World Wide Web is the same thing. They're not! The World Wide Web is what you are browsing right now. It is one of the many features of the Internet.

## iPod

The iPod is a portable music player developed by Apple Computer. Since introducing the iPod in 2001, Apple has released several new versions of the popular device. These include iPod, iPod mini, iPod Special Edition, iPod photo, and iPod shuffle. iPod mini is a smaller version of the iPod that comes in various colors and stores fewer songs.

## IGP (Integrated Graphics Processor)

Stands for "Integrated Graphics Processor." An IGP is a graphics chip that is integrated into a computer's motherboard. The IGP serves the same purpose as a video card, which is to process the graphics displayed on the computer. Integrated graphics processors take the graphics portion of the processing load off the main CPU.

## Icon

An icon on your computer screen represents an object or a program on your hard drive. The files that you see in those folders are also icons. Icons are a visual representation of something on your computer. For example, a blue "e" on your screen most likely represents the Internet Explorer program. An icon that looks like a sheet of paper is probably a text document. Icons are one of the fundamental features of the graphical user interface (GUI).



# DICTIONARY

## IBM (*International Business Machines*)

The company that designed and built the first PCs, and still a giant of the industry. Standard PCs were originally referred to as "IBM compatible", although IBM no longer controls the PC standard

## IM (*Instant Messaging*)

A program that allows you to "chat" lives via keyboard over the internet. Both parties must be running the same IM software - there are several different brands, mostly incompatible with each other.

## Inkjet

Inkjet printers are the most common type of consumer printers. The inkjet technology works by spraying very fine drops of ink on a sheet of paper. These droplets are "ionized" which allows them to be directed by magnetic plates in the ink's path.

While inkjet printers used to lack the quality and speed of laser printers, since low-budget inkjet printers can now print high-resolution photos.

## iTunes

The **Apple** Corporation's online music store, where you can download millions of music tracks to an **iPod** or computer - for a fee, of course. As with many Apple products, it is only compatible with Apple hardware and software.

## ISDN (*Integrated Services Digital Network*)

An early high speed (for its time) internet connection system mainly aimed at business, now largely obsolete. Requires a special type of **modem** called a **Terminal Adaptor**.

## IT (*Information Technology*)

What computers are all about - using technology to manage information? The computer industry is often called the IT industry, and computer departments often refer to themselves as the IT department.



**More than 80% of web pages are in english.**

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# QUIZ

**Q1. What was the original Apple computer logo?**

1. Rainbow apple
2. Rainbow apple with a bite
3. Red apple
4. Sir Issac Newton under an apple tree

**Q2. Where is the BIOS stored?**

1. On the hard drive
2. On a diskette
3. On a USB drive
4. On a flash memory chip

**Q3. Which of the following is not an image file?**

1. JPEG
2. GIF
3. TMP
4. BMP

**Q4. What is the capacity of a standard PC floppy?**

1. 2MB
2. 1.44K
3. 1.44MB
4. 120MB



# QUIZ

**Q5. A Computer Virus cannot be contracted by.**

1. Floppy diskette
2. E-mail
3. Scanner
4. Internet Downloads

**Q6. What does the term IRQ stand for?**

1. Input Request Que
2. Interrupt Request Que
3. Interrupt Request
4. Input Request

**Q7. The Intel Pentium bug/flip was an issue with the:**

1. Cache
2. FPU
3. Socket
4. There was no bug/flip

**Q9. What is the minimum memory requirement for Microsoft Windows XP?**

1. 32MB
2. 64MB
3. 128MB
4. 256MB