



# Ethical Hacking and Countermeasures

Version 6

## Module XLV

Privacy on The Internet



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# News

## Personal data privacy 'at risk'

**Millions of people are leaving themselves open to identity theft when using social networking websites, according to the consumer group Which?**

Members of sites such as Facebook can join large networks which reveal personal information to thousands of others on the network.

Which? says people are at a greater risk of being targeted by fraudsters than they think.

On average, UK residents' details are held on about 700 databases.

Which? says that fraudsters can use the internet to gather personal information which could then be used to trick people into revealing Pin numbers and other security information.

These could then be used by conmen to apply for credit cards or loans in somebody else's name.

Burglars could also benefit from such information, it says.

### Risk from "friends"

Personal profiles that may include a date of birth, contact details or links to family and friends can often be seen by thousands of people in a Facebook network if users stick with the default privacy setting.

#### PERSONAL DATA TIPS

- Regularly check your credit file
- Check bank statements thoroughly
- Immediately cancel lost or stolen cards
- Shred unwanted documents
- Never share bank details following an unexpected request
- Install up-to-date security software
- Understand privacy settings on social networking websites

"Facebook encourages users to customise their security settings to a level they are comfortable with," a Facebook spokesman told Which?

The Information Commissioner's Office is investigating why personal information remains on Facebook's computers after users have deactivated their accounts.

Awareness of identity fraud has increased since the high-profile loss of government disks containing personal data.

Source: <http://news.bbc.co.uk/>

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# News

## Web site poses problems for privacy

By: Furrah Qureshi

Posted: 2/22/08

Guaranteed anonymity and a platform to promulgate your ideas to the world are the means to turn a respectful non-contentious student into a belligerent Internet spammer. We are finding ourselves in this new medium of public domain, still unaware of just how public it is. I can't wait for the 2066 elections, where viable presidential candidates will be haunted by their own Facebook pictures as the beauty queens of today are. We are part of a youth culture that has the ability to instantly photograph all factions of our lives and instantly post them to the web. We may be hurting ourselves in the long run, but in the short run, many Internet users are hurting others as well.

JuicyCampus.com has been making headlines recently, as well as not-so-recently, for providing a mechanism for anonymous users to exploit the personal lives of other students. Sexually explicit recollections and possible fabrications that mention students by name are making Google waves across the Internet. Since last fall, seven college campuses have launched the gossip web site despite the uproar of students.

"It is an expression from our student body that we don't want this junk in our community," Andy Canales, leader of the student government at Pepperdine, said in an interview with CNN. Pepperdine recently voted 23-5 to ask for a ban of the web site.

JuicyCampus is the latest staple in the ongoing war between the freedom of speech and the right to privacy. Society exists as equilibrium of the two - constantly fluctuating and wavering, depending on the political environment of the country. But I am a staunch zealot for the first amendment, yet I still have qualms about the web site. I think it's tacky and in very poor taste. However, defenders of the web site (and there are many) will claim that anyone who is willing to "act" a certain way "deserves" to deal with public ramifications - which is absolutely stupid. Even though I think people have a reasonable expectation of privacy when engaging in intimate acts, who is to say any of these posts are even valid? Regardless of how you feel about drunkenness or promiscuity, you can at least feel sympathy for people who have done nothing and still appear in trashy posts by name. As usual, the Internet is providing a platform for people to lie or hyperbolize while hiding behind the guise of freedom of speech.

Source: <http://media.www.thetriangle.org/>



# News

## Internet privacy not as secure as you think

By: John P. Gamboa, Staff Writer

Posted: 2/7/08

There's a new decade edging closer, and more people are using computers and the Internet every year. This demands that more steps be taken to prevent data mining and breaches of privacy.

In the last several years, there have been several breaches of privacy on the Internet and consumer levels have raised a few eyebrows, and requiring a new status quo for privacy rights.

### Delete your online cookies

Occasionally, When a user visits a Web site frequently, account information will save for the next visit. Yahoo, Google and Facebook run their Web sites in this manner. It is noticeable after shutting off your computer or disconnecting from the Internet and returning to a site later to find you are still logged onto your e-mail account.

Cookies enable the tracking and authentication of your information on the Web. They can store passwords, IP addresses, Web browser types and user information in each little text file.

While cookies are generally used for good purposes, such as tracking trends to enhance your online experience, sometimes they can cause trouble.

Advertisers often use cookies - think banner ads - to track your trends on the Web, such as the types of sites a user visits or the effects of ads on users. Some privacy activists find this to be the most nefarious uses of cookies.

Google has been tracking cookies for several years, with some lasting until 2010. The National Security Agency was caught by The Associated Press in 2005 for tracking a user's Internet history by creating cookies that track all visitors of the agency's Web site.

All Web browsers allow users to block cookies from being created under the proper settings.

By deleting your cookies, you're ensuring that companies and people aren't tracking your information. This will also ensure that if your computer's privacy was compromised, the data wouldn't be compromised as well.

Source: <http://media.www.thedailyaztec.com/>

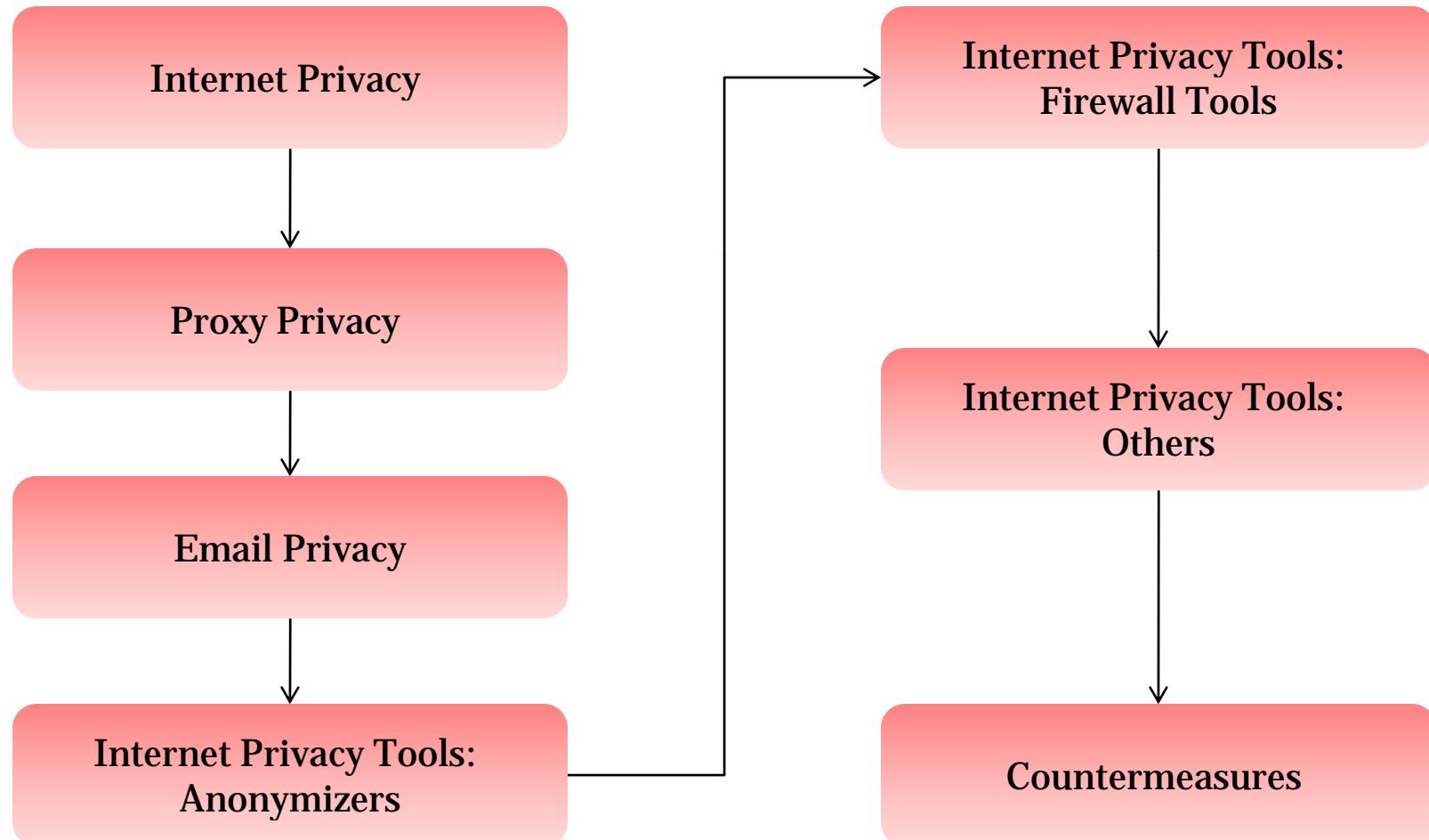
# Module Objective

This module will familiarize you with:

- Internet Privacy
- Proxy Privacy
- Email Privacy
- Internet Privacy Tools: Anonymizers
- Internet Privacy Tools: Firewall Tools
- Internet Privacy Tools: Others
- Countermeasures



# Module Flow



# Internet Privacy

Internet Privacy gives the security to an individual to access the Internet, so that no one can detect or intercepts his/her personal information



Issues with Internet privacy include knowing what personal information is available online



It can be managed by web browser cookies and preventing pop up advertisements

# Proxy Privacy

Proxy Privacy Settings allow to configure the type of concealment for the proxy server

Concealment includes to strip certain HTTP headers from requests as they pass through the proxy

Types of proxy privacy concealment:

- No Concealment
- Standard Concealment
- Proxy Privacy Paranoid Concealments
- Custom Proxy Privacy Concealment



Anonymous http proxies can be used to improve online security and proxy privacy

# Email Privacy

Email privacy solution protects your data and information

Administrators, hackers, or anyone having intent of gaining access to emails can read your e-mail if email privacy is not maintained

You should use a strong password and encrypt your email to protect you from email privacy threats



# Cookies

Cookie is a piece of information that a website sends to a browser when it accesses information at that site



They allow website operators to give unique permanent identifier to the system; this identifier associates requests made to the website by the system

Internet cookies raise privacy concerns, although they can also make the Web easier to navigate

Cookies stored on hard drive helps to build users profile; if they are stolen while public system is used ,they affect privacy



Browsers have the feature to set cookies and notify before it is written to the computer

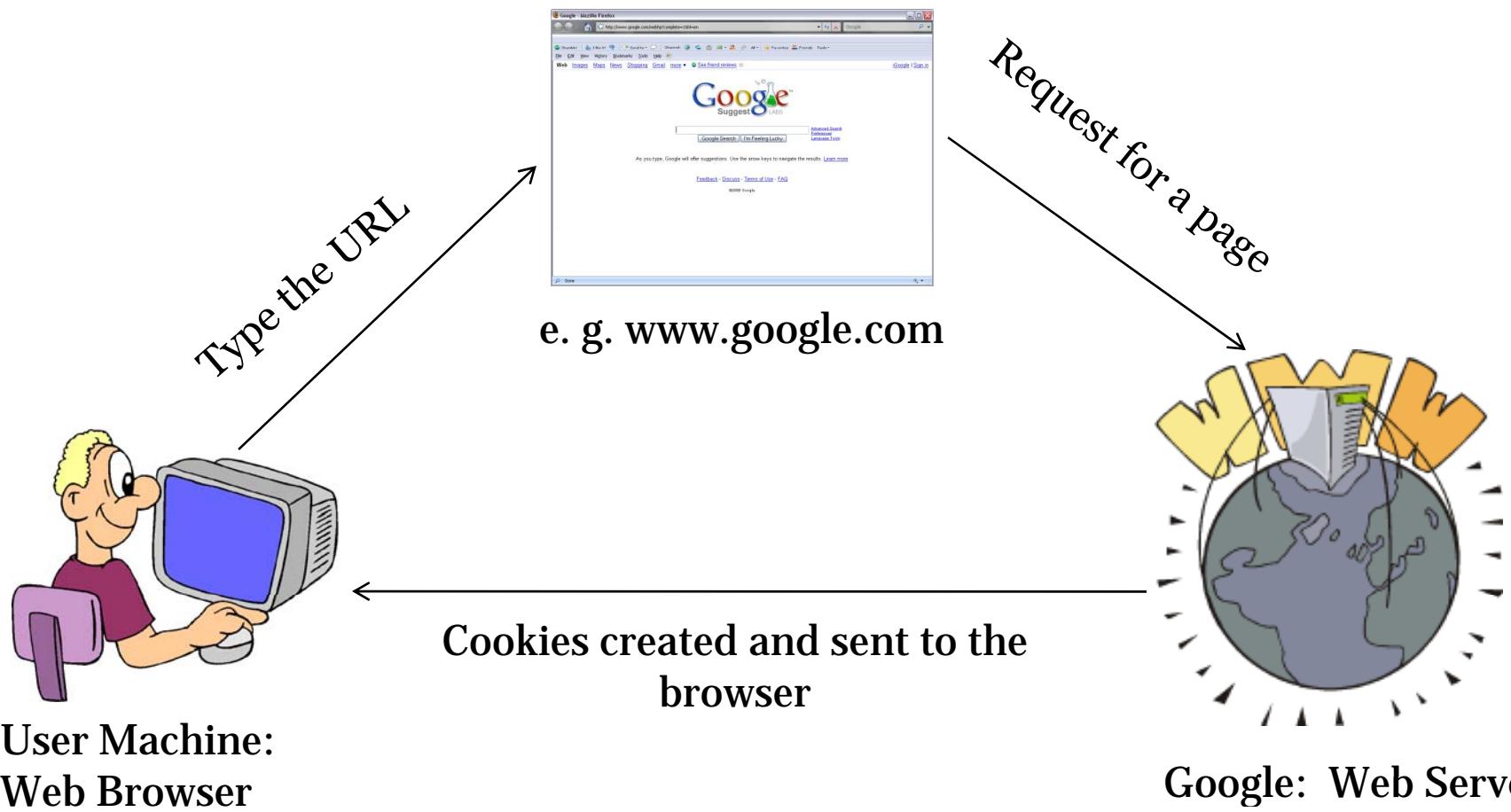
# Examining Information in Cookies

- Syntax of a Set-Cookie header looks like:

Set-Cookie: <NAME>=<CONTENT>; expires=<TIMESTAMP>;  
path=<PATH>; domain=<DOMAIN>;

- NAME
  - Identifies cookie
- CONTENT
  - String of information that has some specific meaning to the server. As you can see from the examples, the content is often encoded in some way
- TIMESTAMP
  - Denotes date, time and duration of cookie (Wdy, DD-Mon-YYYY HH:MM:SS GMT)
- PATH
  - Denotes the directories on the target site
- DOMAIN
  - Defines hosts within a domain that the cookie applies to

# How Internet Cookies Work



# How Google Stores Personal Information

Google servers automatically record the page requests when the user visits google sites

These "server logs" typically include:

- Web request
- Internet Protocol address
- Browser type
- Browser language
- Date and time of request
- Unique cookie ID



Unique cookie ID is a simple piece of state information; if an ID exists on your machine, the site knows that you have visited before



# Google Privacy Policy

## Information we collect and how we use it:

We offer a number of services that do not require you to register for an account or provide any personal information to us, such as Google Search. In order to provide our full range of services, we may collect the following types of information:

- **Information you provide** - When you sign up for a [Google Account](#) or other Google service or promotion that requires registration, we ask you for personal information (such as your name, email address and an account password). For certain services, such as our advertising programs, we also request credit card or other payment account information which we maintain in encrypted form on secure servers. We may combine the information you submit under your account with information from other Google services or third parties in order to provide you with a better experience and to improve the quality of our services. For certain services, we may give you the opportunity to opt out of combining such information.
- **Google cookies** - When you visit Google, we send one or more cookies - a small file containing a string of characters - to your computer that uniquely identifies your browser. We use cookies to improve the quality of our service by storing user preferences and tracking user trends, such as how people search. Most browsers are initially set up to accept cookies, but you can reset your browser to refuse all cookies or to indicate when a cookie is being sent. However, some Google features and services may not function properly if your cookies are disabled.
- **Log information** - When you use Google services, our servers automatically record information that your browser sends whenever you visit a website. These [server logs](#) may include information such as your web request, Internet Protocol address, browser type, browser language, the date and time of your request and one or more cookies that may uniquely identify your browser.
- **User communications** - When you send email or other communication to Google, we may retain those communications in order to process your inquiries, respond to your requests and improve our services.



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# Google Privacy Policy (cont'd)

## Choices for personal information

When you sign up for a particular service that requires registration, we ask you to provide personal information. If we use this information in a manner different than the purpose for which it was collected, then we will ask for your consent prior to such use.

If we propose to use personal information for any purposes other than those described in this Policy and/or in the specific service notices, we will offer you an effective way to opt out of the use of personal information for those other purposes. We will not collect or use [sensitive information](#) for purposes other than those described in this Policy and/or in the specific service notices, unless we have obtained your prior consent.

You can decline to submit personal information to any of our services, in which case Google may not be able to provide those services to you.

## Information sharing

Google only shares personal information with other companies or individuals outside of Google in the following limited circumstances:

- We have your consent. We require opt-in consent for the sharing of any sensitive personal information.
- We provide such information to our subsidiaries, affiliated companies or other trusted businesses or persons for the purpose of processing personal information on our behalf. We require that these parties agree to process such information based on our instructions and in compliance with this Policy and any other appropriate confidentiality and security measures.
- We have a good faith belief that access, use, preservation or disclosure of such information is reasonably necessary to (a) satisfy any applicable law, regulation, legal process or enforceable governmental request, (b) enforce applicable [Terms of Service](#), including investigation of potential violations thereof, (c) detect, prevent, or otherwise address fraud, security or technical issues, or (d) protect against imminent harm to the rights, property or safety of Google, its users or the public as required or permitted by law.



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# Web Browsers

The underlying HTTP protocol and HTML language transfers and collects basic information about the requesting user

The data sent with each transfer includes the return address for sending the requested web page as well as technical information intended for programmers to customize web page layout

This type of information by itself is of minimal concern but the IP address is left at every site visited

SSL is a common protocol that uses different cryptographic algorithms to implement security and safe communication between the server and client



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# Web Bugs

Web bugs keep track of Internet users and can be found in various applications including browsers, Usenet News, and e-mail

The request for the pixel to display is sent to an advertiser that can return a cookie

They are designed to monitor the reading of a web page or e-mail message

These web bugs can also carry back information to the advertiser or sender that can include when and where the message was read and who else read it

Turning off web graphics prevents this transfer

# Downloading Freeware

There are many free software on the Internet which are available for downloading

Points to remember while downloading software:

- Download software from trusted sites
- Scan the downloaded content before using it
- Check for phishing sites before downloading any content
- Software should not be downloaded from free tool downloads



# Internet Relay Chat

Internet Relay Chat is a form of real-time Internet chat or synchronous conferencing



IRC is designed for group and one-to-one communications

Communication in IRC is established using channel which is displayed using command



IRC connections are usually unencrypted and typically span long time periods; they are an attractive target for malicious hackers

# Pros and Cons of Internet Relay Chat

## Pros

- It is a cost effective alternative to phone, fax, and other traditional means of communication
- Direct client to client functions allow users to bypass the IRC server by establishing direct connections with one another
- IRC networks are configured in a way to create redundancy and reliability
- IRC servers typically allows only a fixed number of connections from outside of its domain

## Cons

- As there is no over-arching authority to act as a watchdog governing IRC servers, anyone can establish a server and join an IRC network
- Peer-to-peer connections is fine as long as the data exchanged is innocuous
- User must understand the implications of accepting any files from unknown parties

# Electronic Commerce

Electronic Data Interchange is the exchange of business data using a familiar data format which causes threat to privacy in e-commerce

Attackers can steal personal details by different techniques such as phishing, eavesdropping user's transaction over the Internet, or simply with the social engineering techniques

Secure Socket Layer built into the major browsers may provide protection during the transmission of Credit Card numbers



# Electronic Commerce (cont'd)

In this type of fraud, an attacker uses the stolen credit card numbers, makes online purchases, and orders goods on the fake address



In skimming attack, an attacker may be a dishonest merchant or employee and uses small skimming devices such as magnetic stripe reader

When any customer pays the bill with the credit/debit card, attacker swipes that card on the machine, and with the help of skimming device installed by the attacker behind the panel, notes down the details from the cards



Card verification value code is a three-digit number which appears on the back of all Visa, Master, and Discover cards which provides security



# Internet Privacy Tools: Anonymizers

# Anonymizer Anonymous Surfing

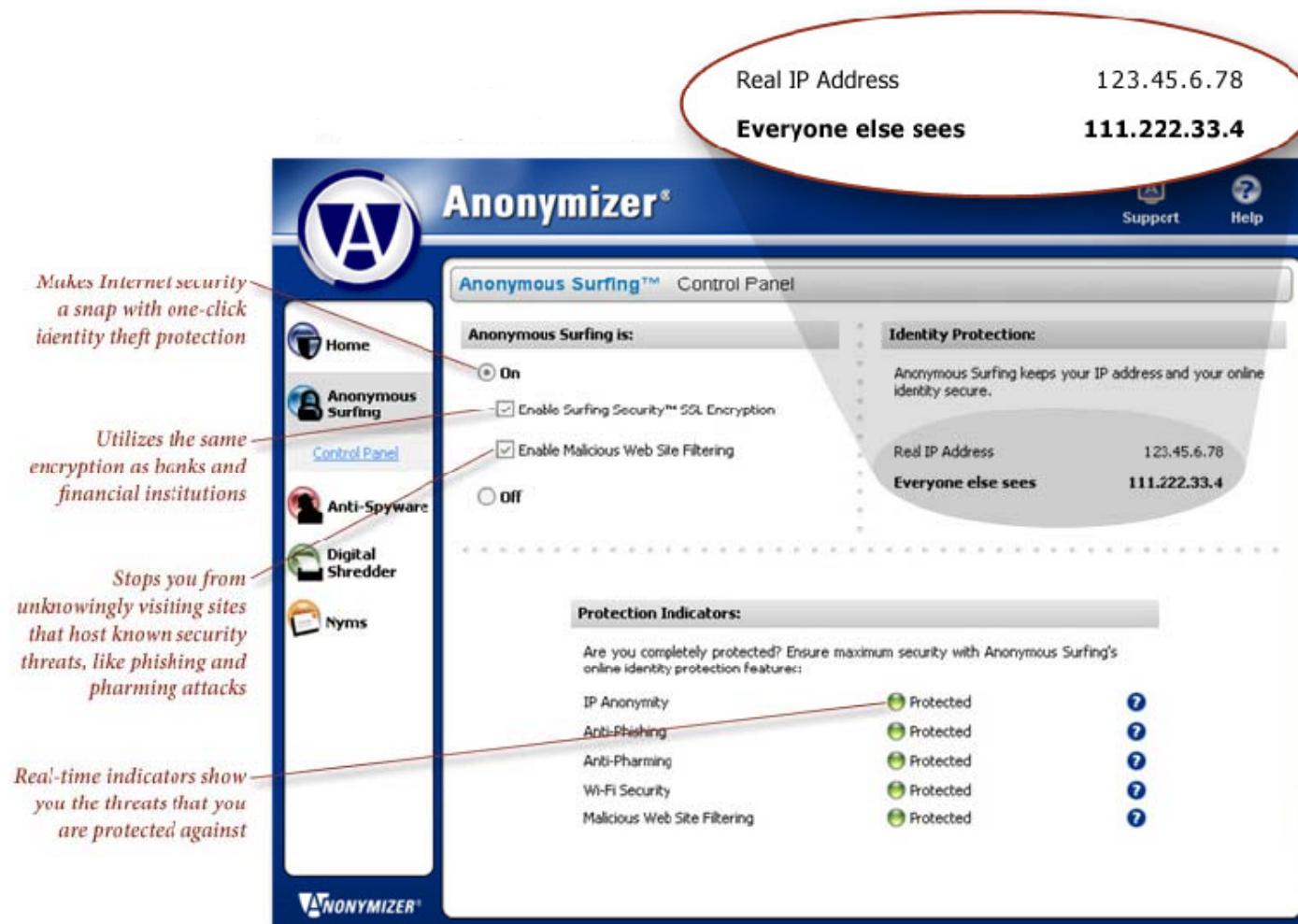
Anonymous Surfing protects your privacy and your identity by preventing from the cyber criminals

It enables anonymous Web browsing which hides your IP address so that online snoops are unable to track the sites you visit

Anonymous Surfing also protects you from inadvertently visiting Web sites that are known to be phishing, pharming, or spyware sites



# Anonymizer Anonymous Surfing: Screenshot



# Anonymizer Total Net Shield

Anonymizer Total Net Shield works by creating an encrypted "virtual tunnel" to and from your computer

It shields you from the most complex methods of online spying and snooping

It protects you from Man in the Middle attack by encrypting all of your online communications with Secure Shell (SSH) tunneling

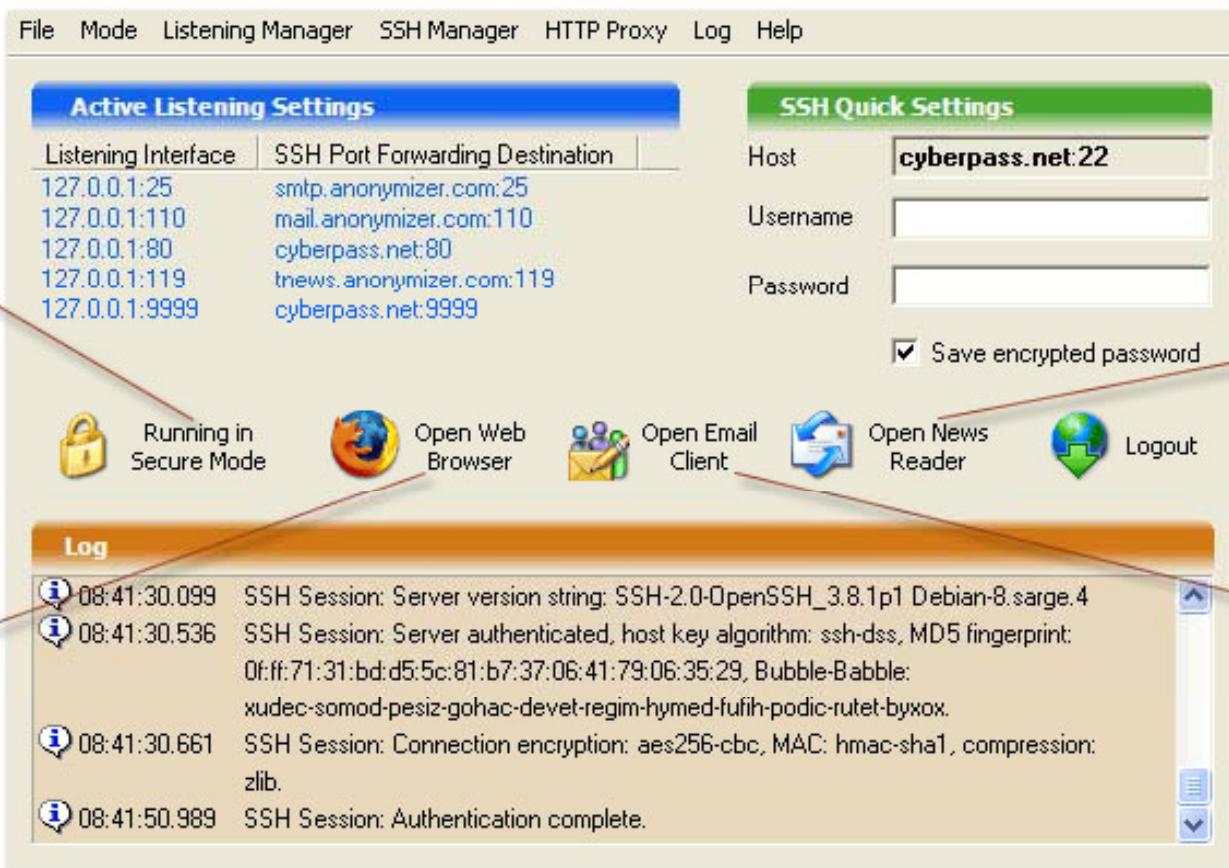
It protects the online activities from evil twins making them unable to access your passwords, credit card numbers, and other personal information



# Anonymizer Total Net Shield: Screenshot

*Shields your IP address and your identity*

*Protects your instant messaging, message board discussions, and blog postings*



*Configures your newsgroups*

*Encrypts your email*

# Anonymizer Nyms

Anonymizer Nyms allows you to create and destroy alias email addresses in an instant

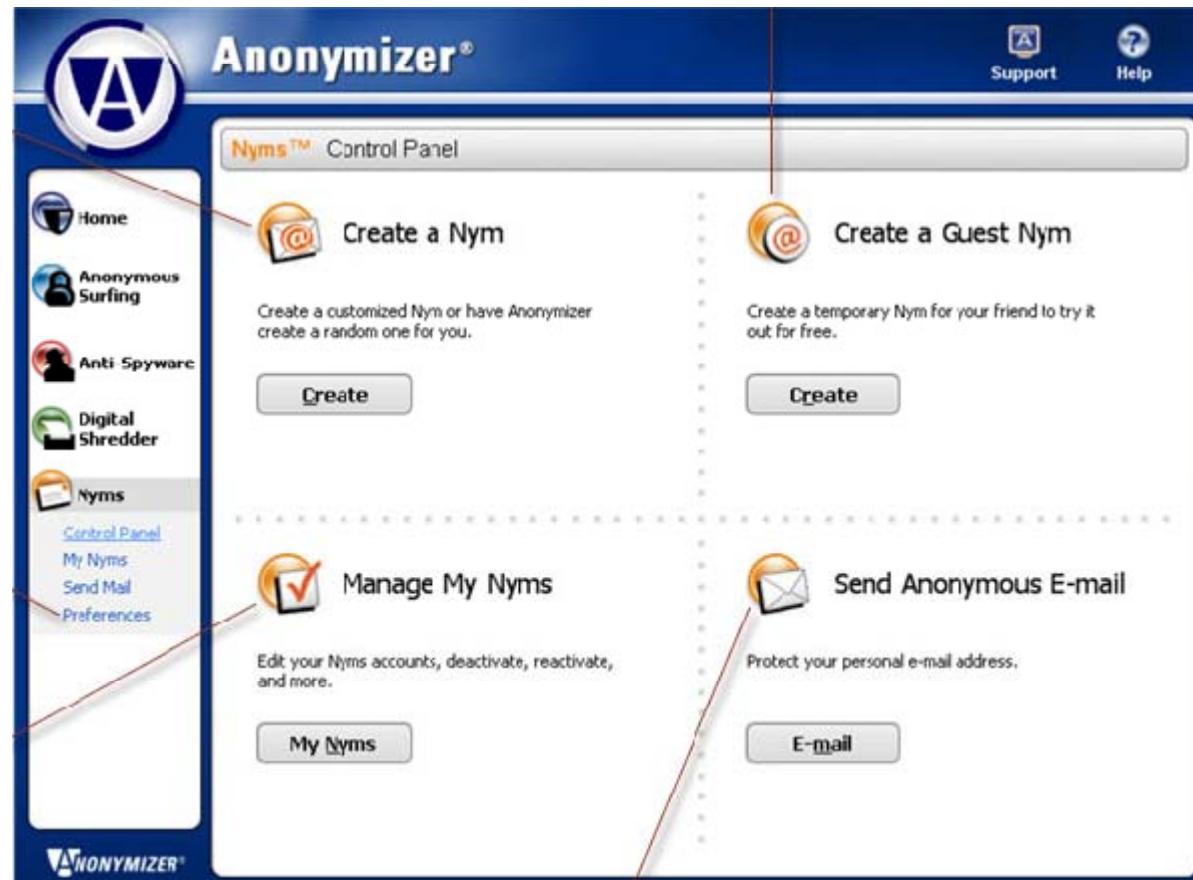
It shields your real email address by allowing you to create a unique Nyms every time you need to provide an email address or send an anonymous email

## Features:

- Kill spam at its roots
- Create disposable and anonymous email aliases
- Manages your Nyms from any computer
- Checks your Nyms emails from your primary inbox



# Anonymizer Nyms: Screenshot



# Anonymizer Anti-Spyware

Anti-Spyware detects spyware and tracks programs since they masquerade as real programs

It eliminates current spyware and adware programs on your computer and prevents them from returning

It even stops new spyware before it downloads to your computer through the real-time ActiveX Shield

It stops bothersome adware programs that trigger pop-up ads and drain your PC's performance



# Anonymizer Anti-Spyware: Screenshot



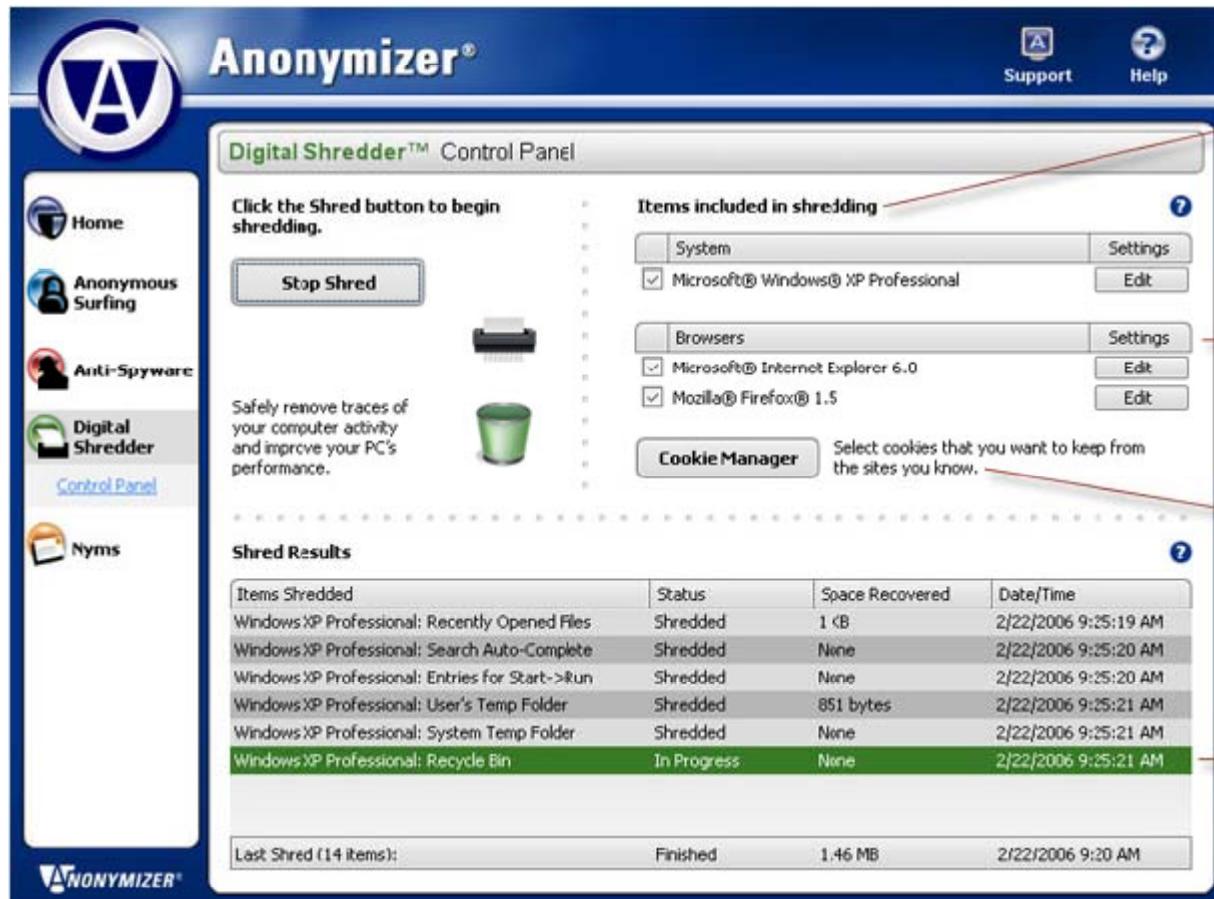
# Anonymizer Digital Shredder Lite

Anonymizer's Digital Shredder Lite keeps your computer running smoothly by enabling you to quickly delete unused files that are cluttering your computer

It can shred your recently opened files, search auto-complete, and system temp folder



# Anonymizer Digital Shredder Lite: Screenshot





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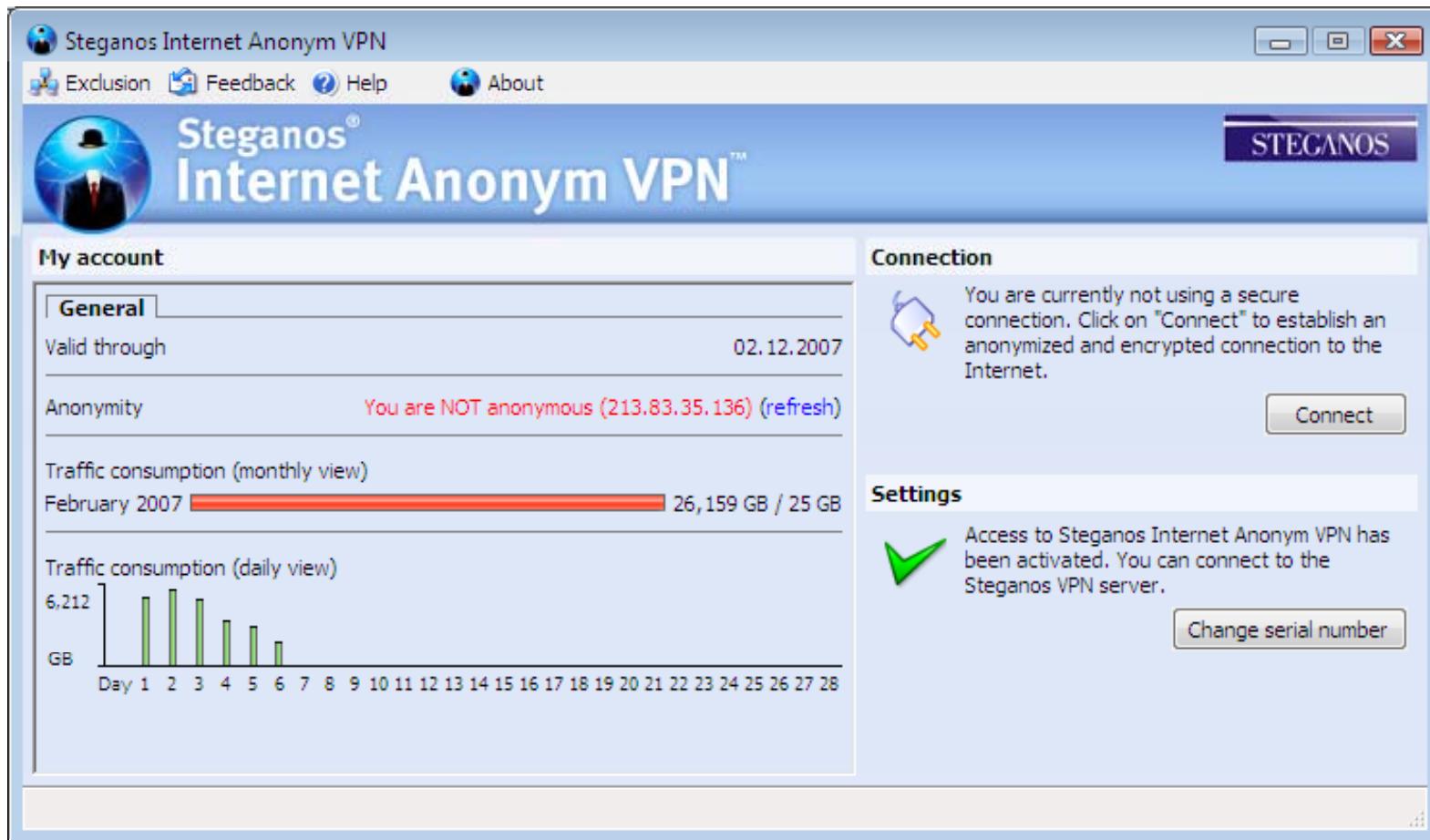
# Steganos Internet Anonym

Steganos Internet Anonym offers Internet anonymity and eliminates Internet and PC tracks

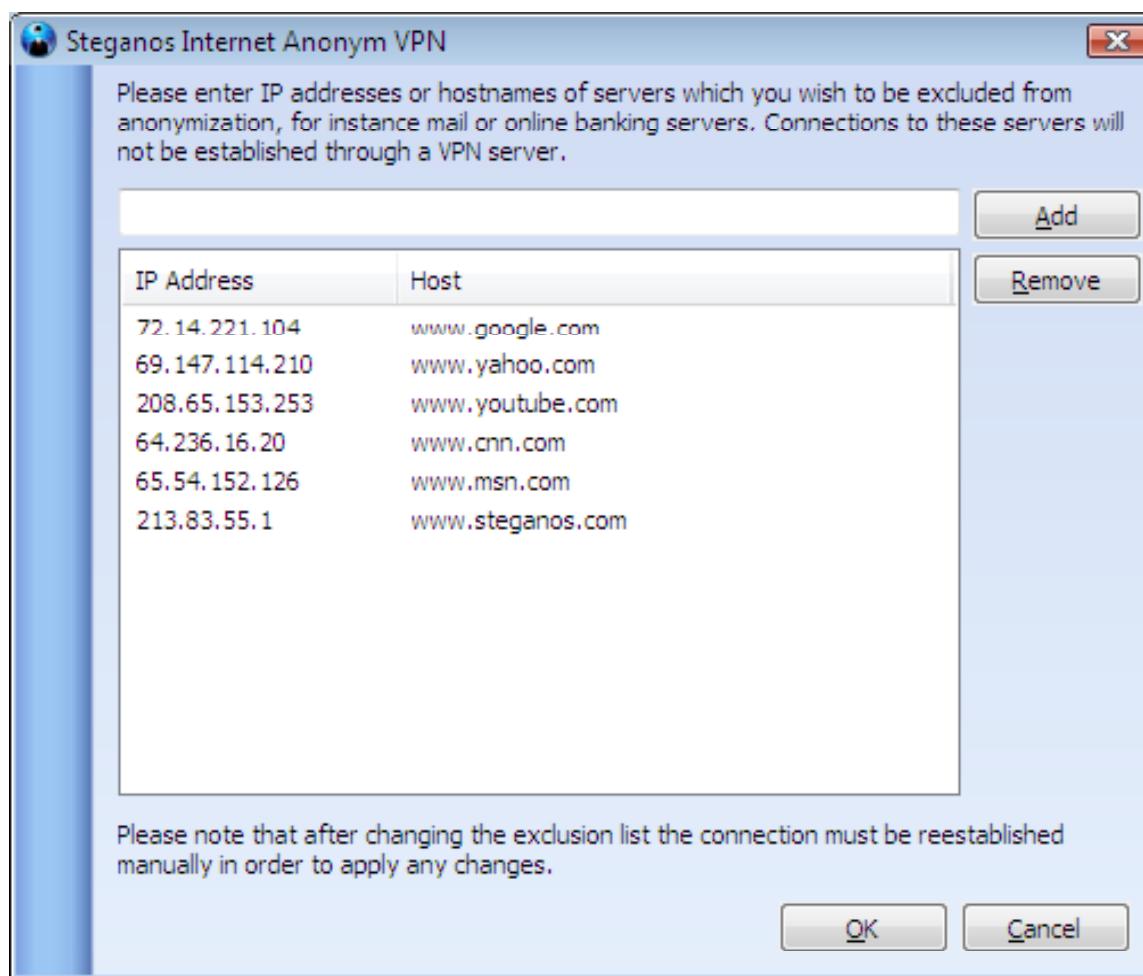
The program uses various proxy servers to route your surfing, thereby changing your IP address and geographical location frequently

The program offers an encrypted collection of Private Favorites, a built-in File Shredder, and an Internet Tracks eraser

# Steganos Internet Anonym: Screenshot 1



# Steganos Internet Anonym: Screenshot 2



# Steganos Internet Anonym: Screenshot 3



# Invisible IP Map

Invisible IP Map is that masks your real location

Every computer that is connected to the Internet has its own IP address which could easily be located on a map

This program helps you show yourself like you are surfing from another place on the planet





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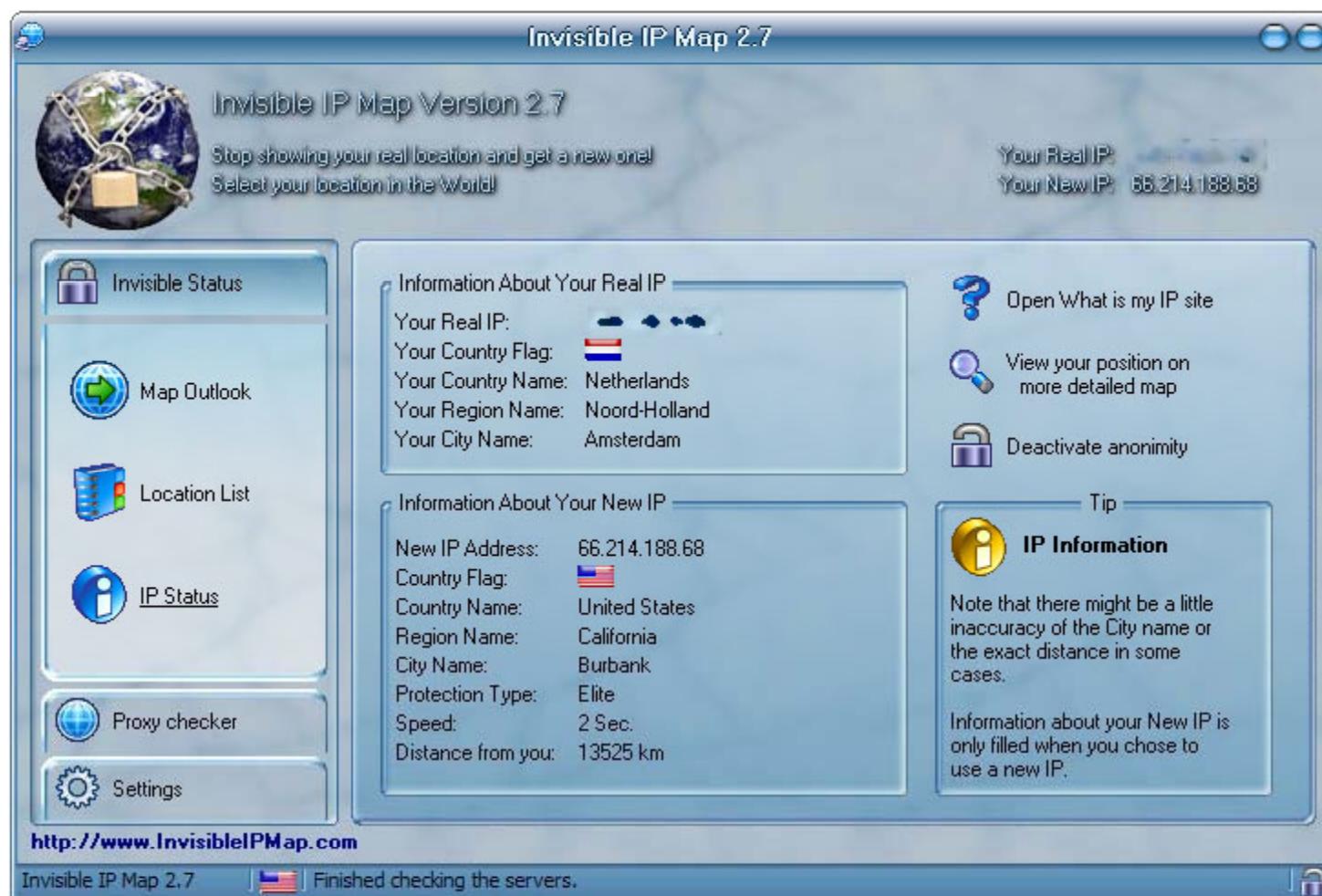
# Invisible IP Map: Screenshot 1



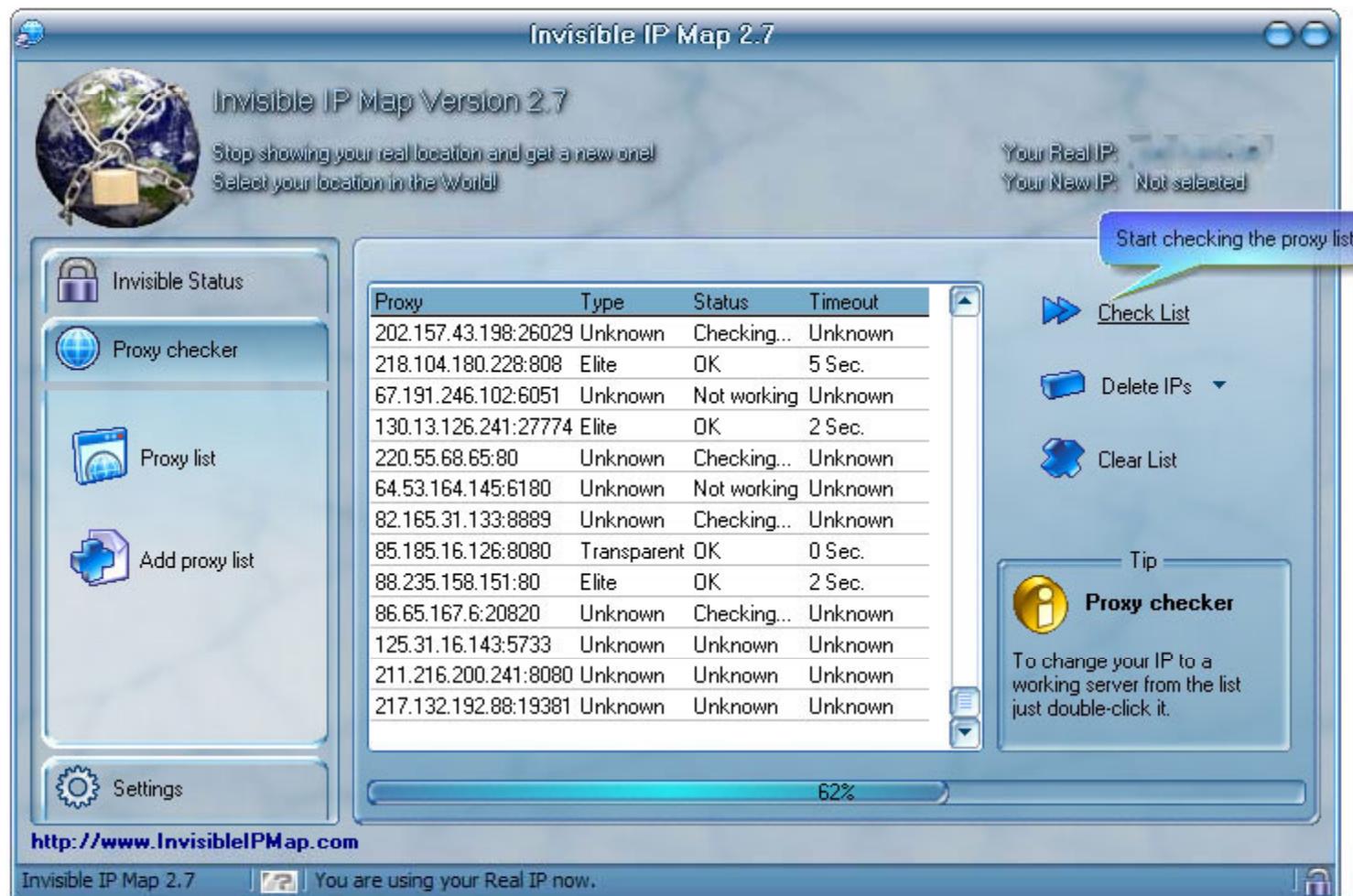


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# Invisible IP Map: Screenshot 2



# Invisible IP Map: Screenshot 3



# NetConceal Anonymity Shield

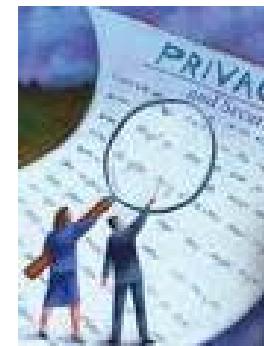
NetConceal Anonymity Shield hides your real IP address and other private information

It redirects all of your network activity through special Internet computers, known as Proxy Servers

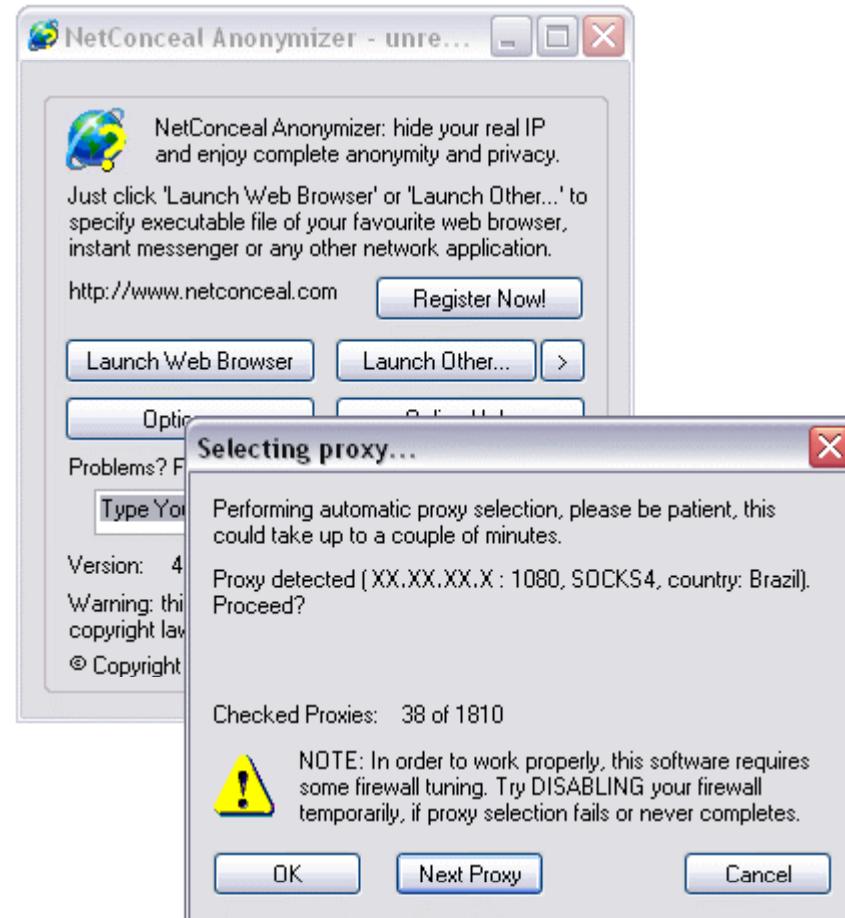
It uses special SOCKS protocol to communicate with proxy servers instead of communicating directly with target Internet resources

## Features:

- Secure and anonymous e-mails
- Virus, and spyware protection
- Fully automatic configuration



# NetConceal Anonymity Shield: Screenshot



# Anonymous Guest

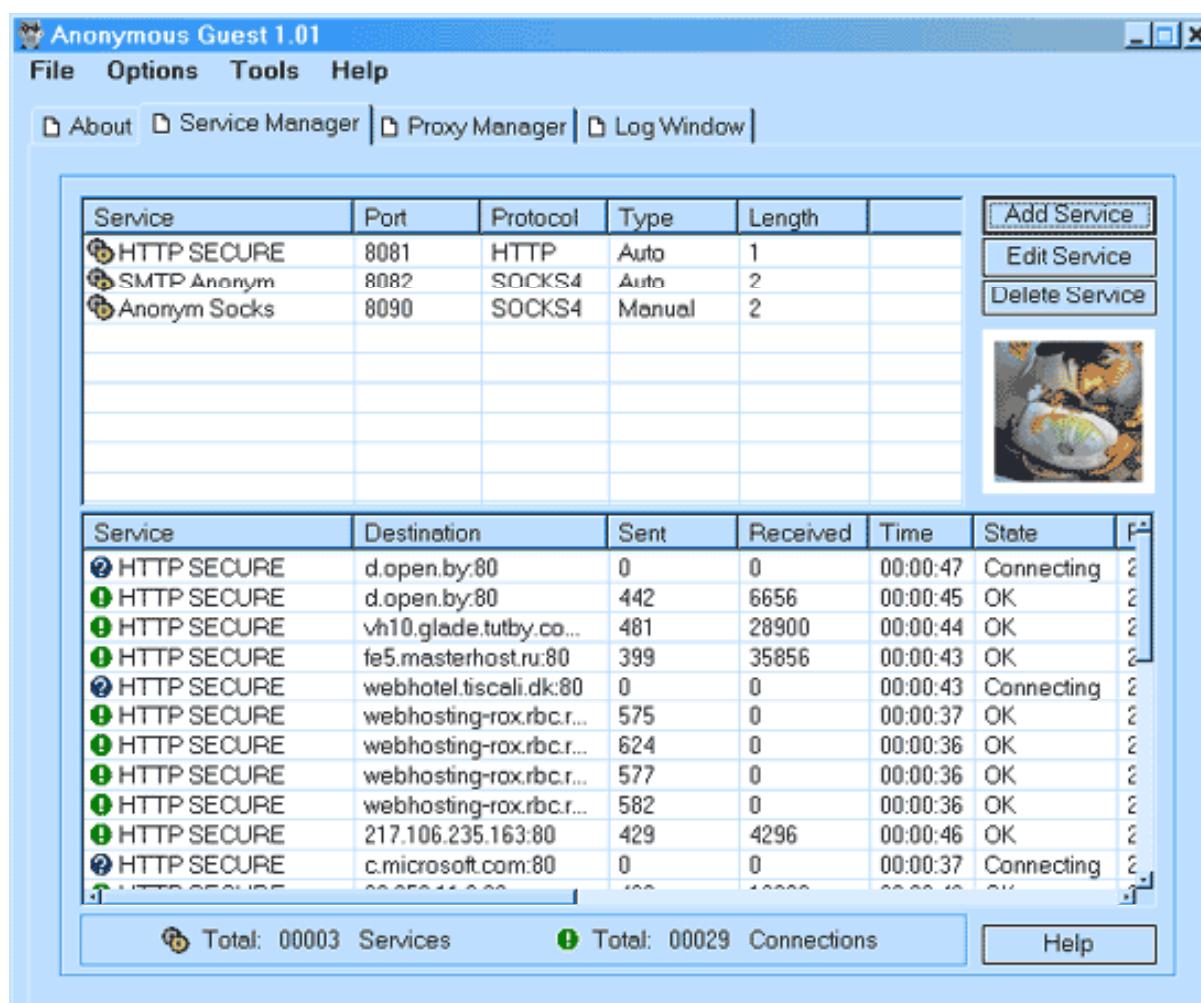
Anonymous Guest is the software that gives a full spectrum of opportunities to work with proxy-servers

It allows you to be connected to the Internet and work with the remote server through a chain of SOCKS4, SOCKS5, and HTTPS proxy servers

It allows you to work in a network, remaining unknown to the world around you



# Anonymous Guest: Screenshot





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# ViewShield

ViewShield suite combines next-generation ad blocker, pop up stopper, online privacy guard, and Internet security manager to let you view what you want and when you want it

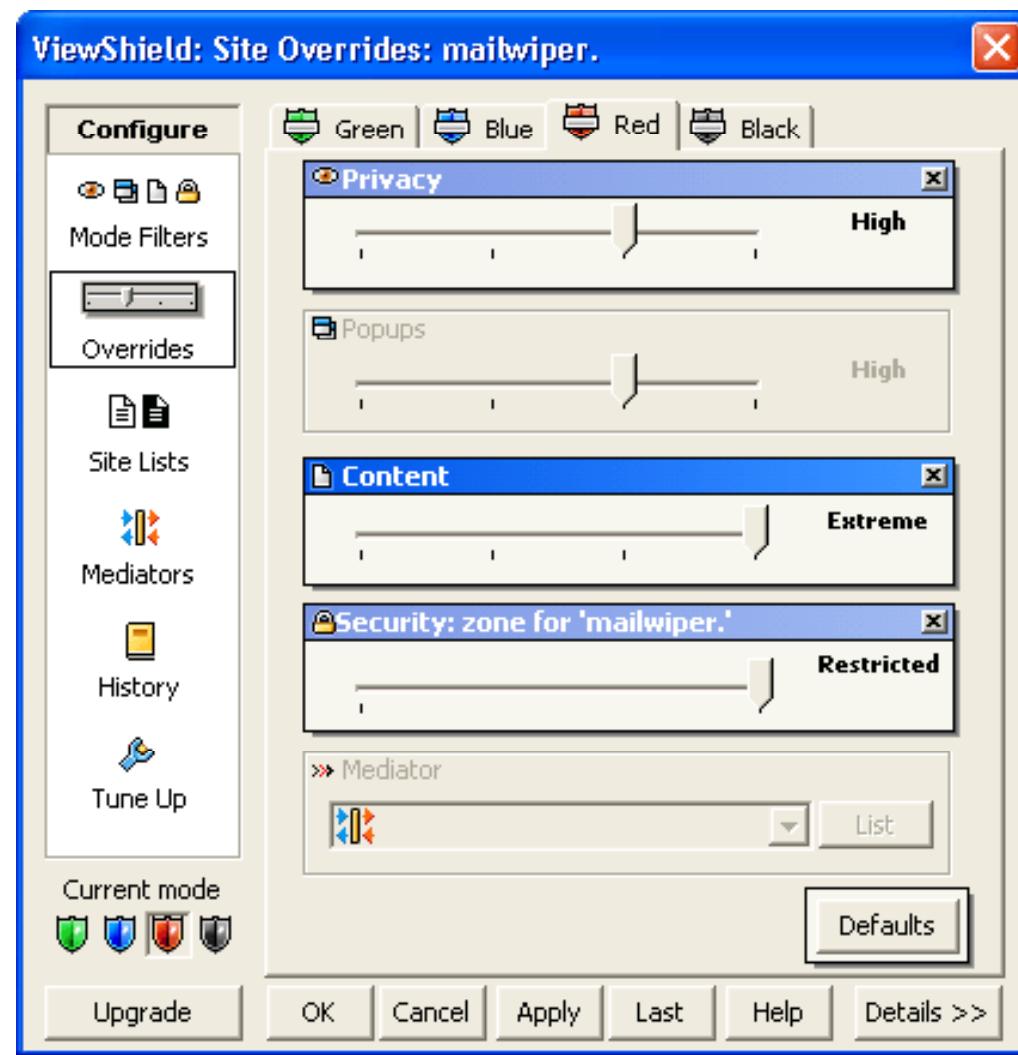
Privacy guard blocks cookies, "referrer", "from" and hide IP address

Pop up blocker blocks all, or only pop ups from other domains

Ad blocker blocks banners, multimedia, scripts, and frames

Security manager changes multiple browser settings with a click

# ViewShield: Screenshot



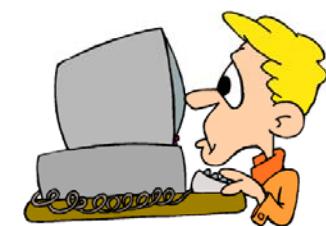
# IP Hider

IP Hider masks the real IP of a user, allowing him to browse all kind of pages by redirecting the traffic through anonymous proxies

This tool has a comprehensive proxy list, containing proxies from various countries so that you can choose one from a specific one

It protects computer from the action of invasive codes:

- Blocks ActiveX
- Blocks JavaScript



# IP Hider: Screenshot

The screenshot shows the main interface of the IP Hider application. On the left, a vertical menu bar lists "status", "anonymity", "privacy", "settings", and "register". The "anonymity" button is highlighted in blue. The main content area has a blue header bar with the "IP Hider" logo, an "Update now" button, a "Check IP now" button, and a maximize/minimize window control.

**select a proxy**

New: 217.173.198.168:80->Poland <supports P >

Tested: 139.19.142.5:3128->Germany

Select a proxy from the New list to test it and browse anonymously. Your traffic will be redirected through that proxy.

Choose a proxy from the Tested list that includes proxies you have already tested during one session of using IP Hider

**select an action**

**Disable Online Anonymity**

Press Disable Online Anonymity to surf using your real IP address

**Disable Privacy**

**status**

Mode: TRIAL COPY  
Status: Online Anonymity: Enabled  
Privacy: Enabled  
To learn more about Anonymity and Privacy click here

Real IP Address: 10.0.0.9  
Current IP Address in use: 139.19.142.5:3128

All Anonymity

# Mask Surf Standard

Mask Surf is an all-in-one online privacy solution that lets you protect your identity while surfing the Internet

You can easily mask or hide the information related to your OS type, browser, system language, as well as the IP address

You can selectively configure Mask Surf to clean cache, URL cache, forms and passwords, cookies, and download history

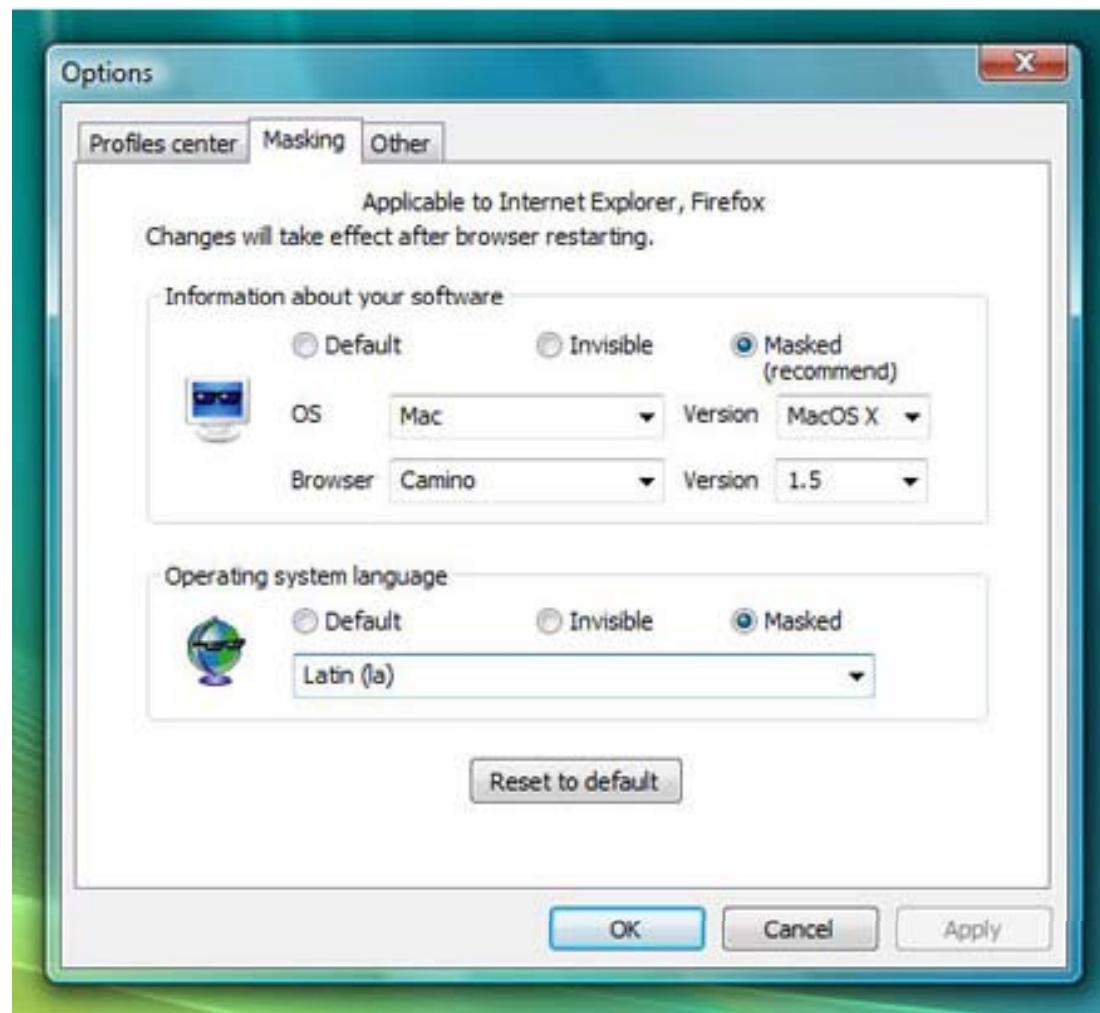
Mask Surf relies on Tor – a network of virtual tunnels that allows people and groups to improve their privacy on the Internet





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# Mask Surf Standard: Screenshot



# VIP Anonymity

VIP Anonymity prevents everyone from knowing your IP address

It redirects your traffic through anonymous proxy servers which do not transfer the information about your IP address

## Features:

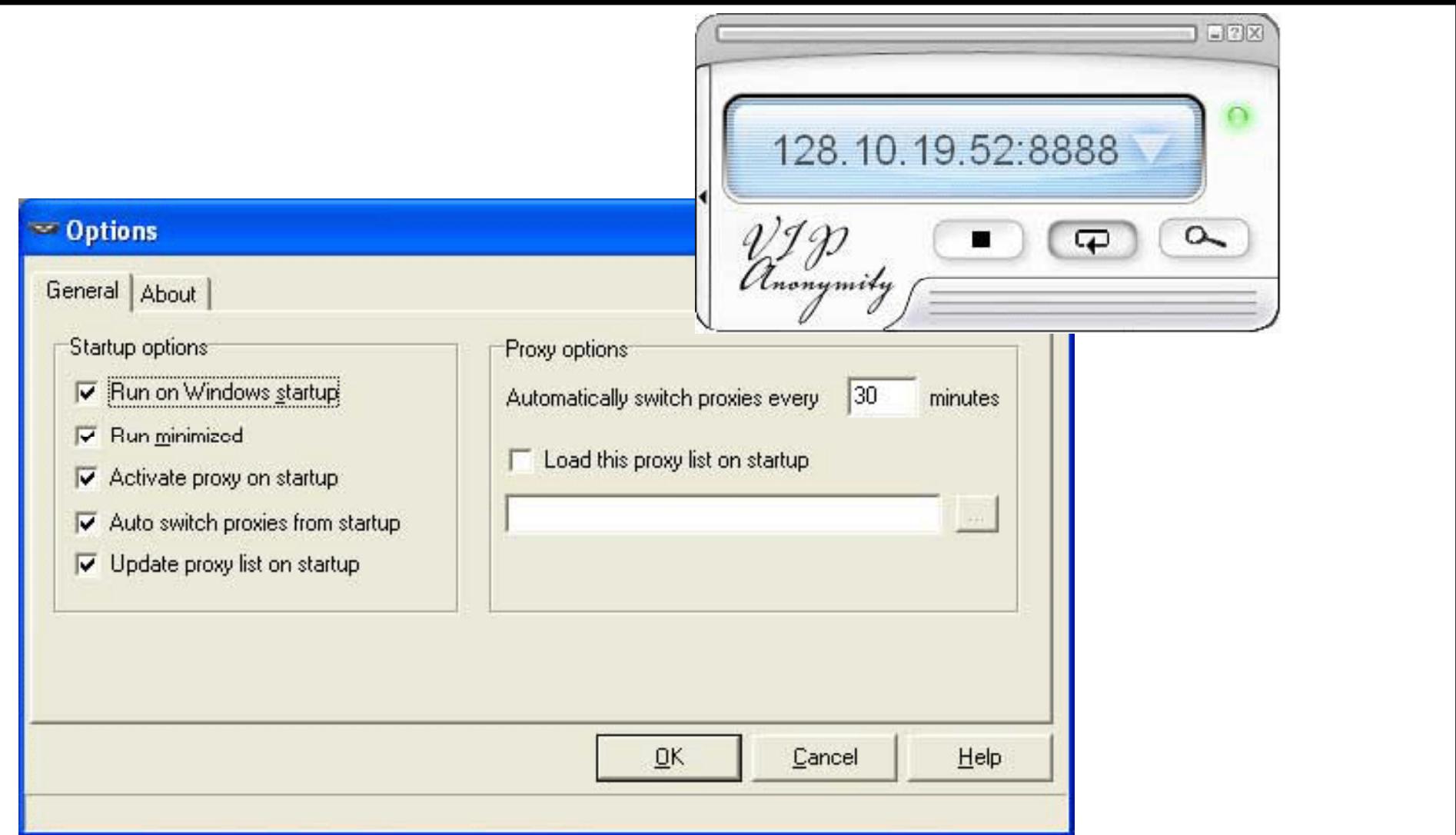
- Internet browsing through anonymous proxy servers
- Auto-checking of proxies for workability
- Automatic switching of proxies with prescribed frequency to wipe out all tracks
- Fine proxy list tuning





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# VIP Anonymity: Screenshot

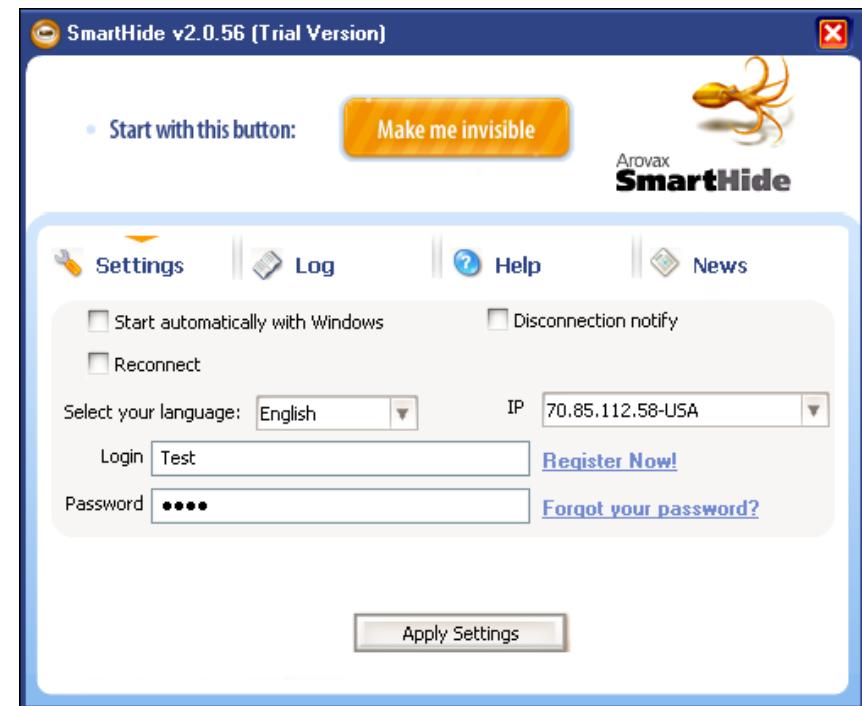


# SmartHide

SmartHide will keep your IP address (and your identity) hidden

Secure all the protocols on your PC (E-mail, Web-browsing, Instant Messaging, P2P, etc)

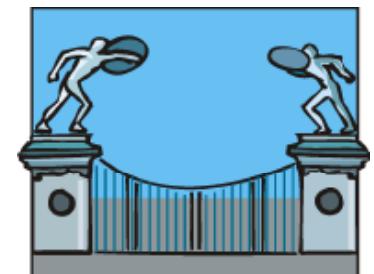
Provide full encryption of your traffic while working on Internet



# Anonymity Gateway

Anonymity Gateway is a privacy protection tool that conceals IP address

It prevents surfing habits and Internet activity from being tracked by websites or Internet Service Providers



Anonymity Gateway blocks invasive codes that may harm or use inadvertently information on your computer

# Anonymity Gateway: Screenshot

The screenshot shows the Anonymity GateWay application window. On the left, a vertical sidebar lists menu items: status, anonymity, privacy, settings, and register. Below these is a note: "Hide your IP and learn how to use the proxies". The main area has two dropdown menus: "New" (selected proxy: 130.104.72.200:3124->Belgium) and "Tested" (selected proxy: 128.232.103.203:3124->Kingdom). Below these are descriptive labels: "Select a proxy from the New list to test it and browse anonymously. Your traffic will be redirected through that proxy." and "Choose a proxy from the Tested list that includes proxies you have already tested during one session of using Anonymity GateWay.". A section titled "select an action" contains two buttons: "Disable Online Anonymity" (with a lock icon) and "Enable Privacy" (with a shield icon). At the bottom, a "status" section displays "Mode: TRIAL COPY", "Status: Online Anonymity: Enabled", "Privacy: Disabled", and a link "To learn more about Anonymity and Privacy click here". The footer shows the real IP address as "Real IP Address:10.0.0.9" and the current IP address in use as "Current IP Address in use:128.232.103.203:3124->Kingdom".

# Hide My IP

Hide My IP allows you to surf anonymously by changing your IP address, prevent identity theft, and guard against hacker intrusions

## Features:

- Easily Conceal Your IP Address
- Anonymous Web Surfing
- Advanced Application Support
- Protect Your Identity and Stop Hackers
- Send Anonymous Emails
- Un-ban Yourself From Forums and Blogs





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# Hide My IP: Screenshot



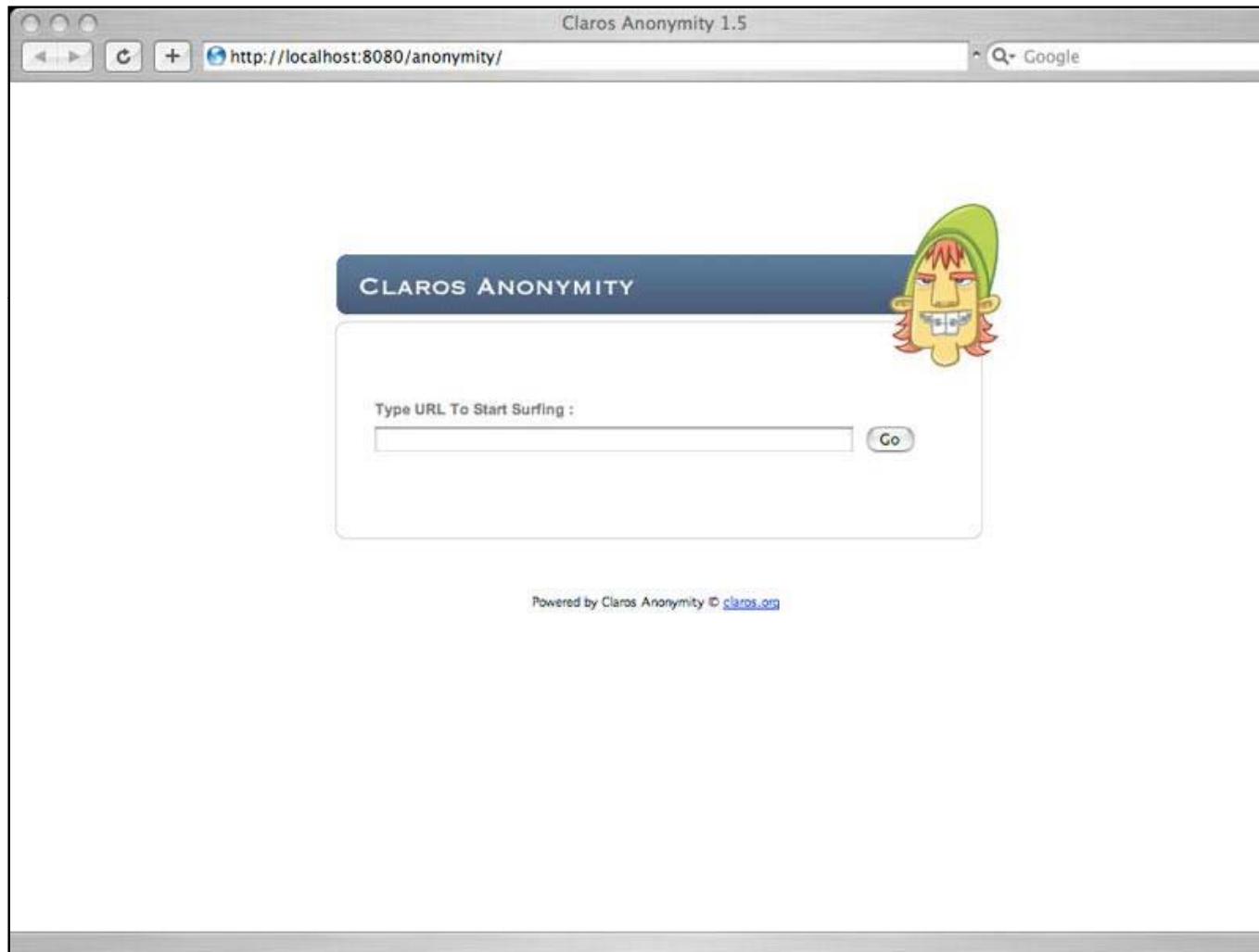
# Claros Anonymity

Claros Anonymity is a useful and anonymizer servlet, a proxy like application which shields your IP address

It allows to surf the net freely, even if you are behind an URL/IP based corporate firewall, because the firewall only logs the anonymizer server's URL and IP address



# Claros Anonymity: Screenshot





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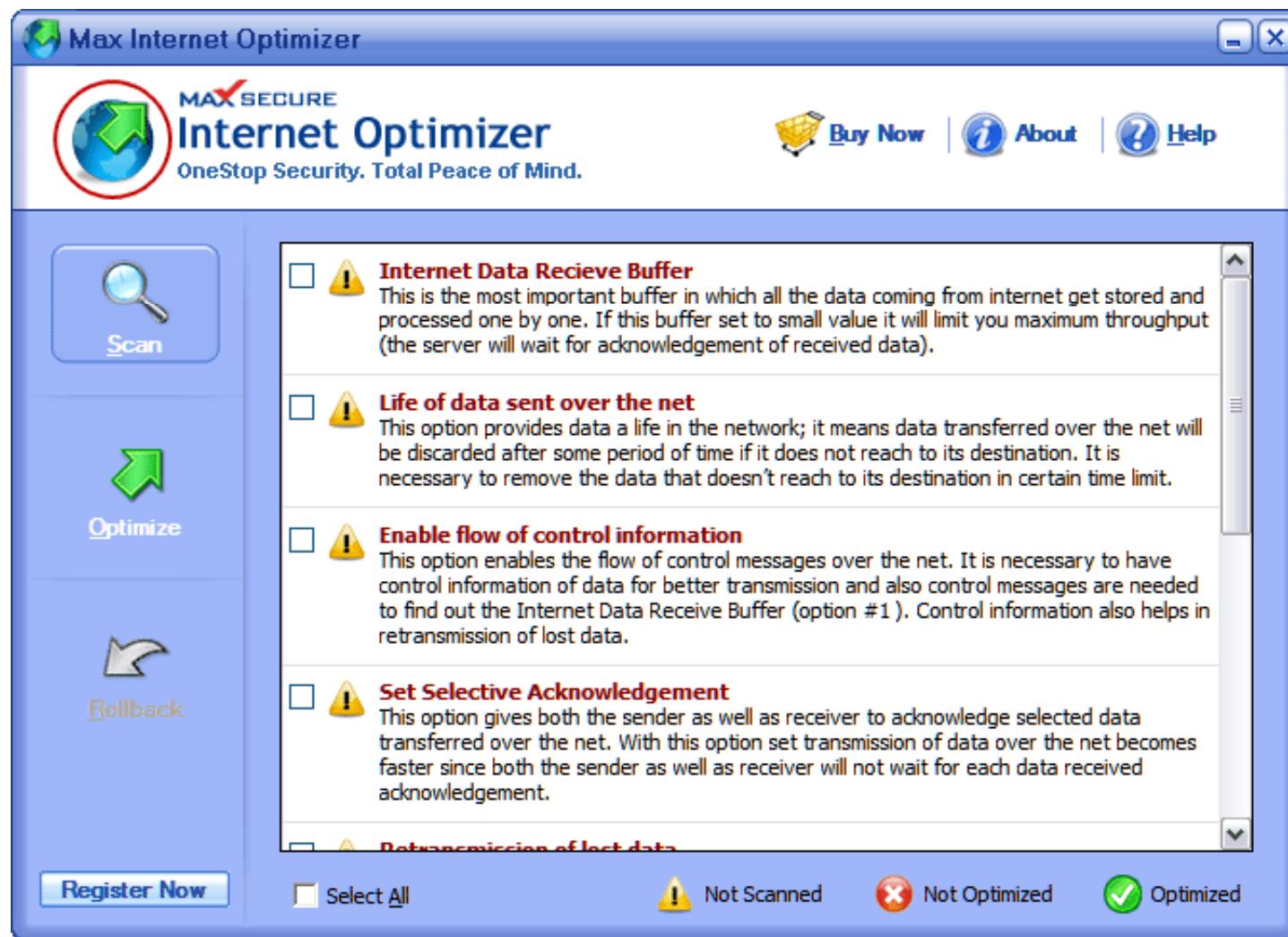
# Max Internet Optimizer

Max Internet Optimizer optimizes various Internet related system settings and boosts your Internet for browsing as well as downloading

## Features:

- Avoids unnecessary storage of error pages
- Enables flow of control information
- Sets selective acknowledgement
- Retransmission of lost data
- Sets Web page processing priority

# Max Internet Optimizer: Screenshot



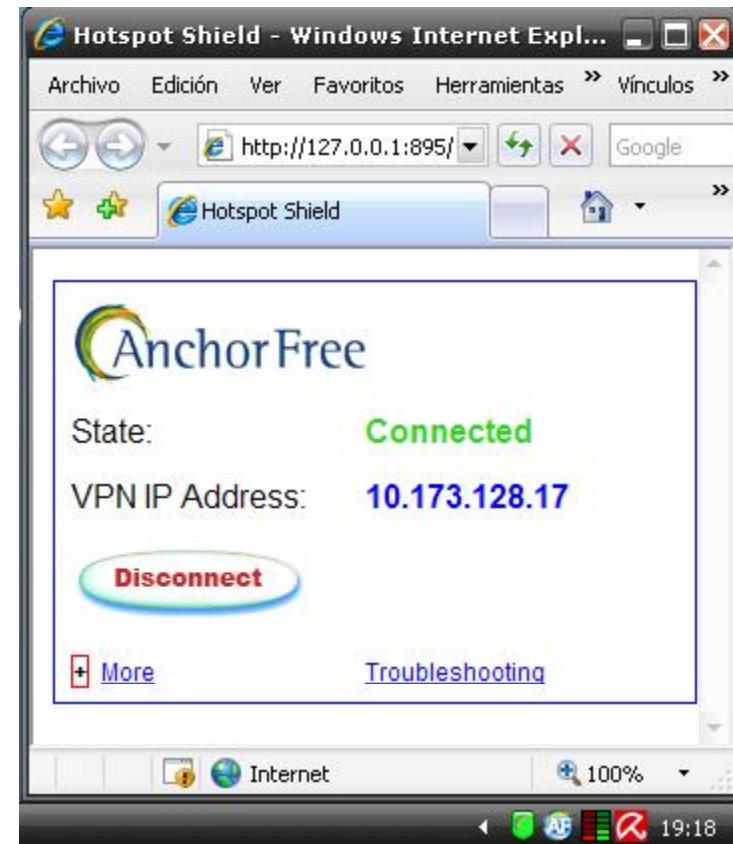
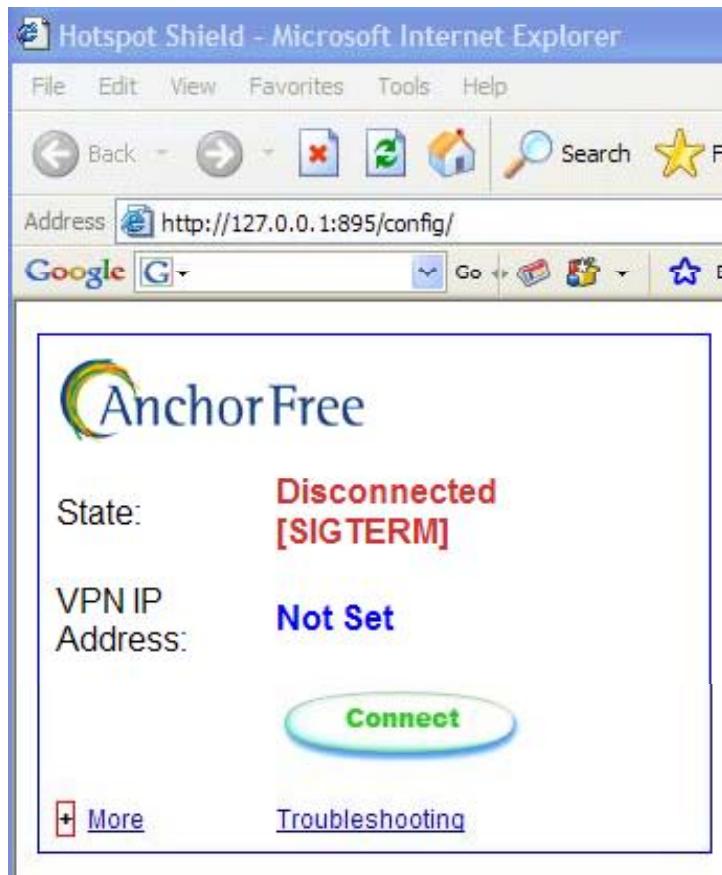
# Hotspot Shield

Hotspot Shield ensures anonymous and censor free Internet usage and can even access blocked websites

It creates a virtual private network (VPN) between your system and the wireless router

This impenetrable tunnel prevents snoopers and hackers from viewing your email, instant messages, credit card information or anything else you send over a wireless network

# Hotspot Shield: Screenshot





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# Anonymous Browsing Toolbar

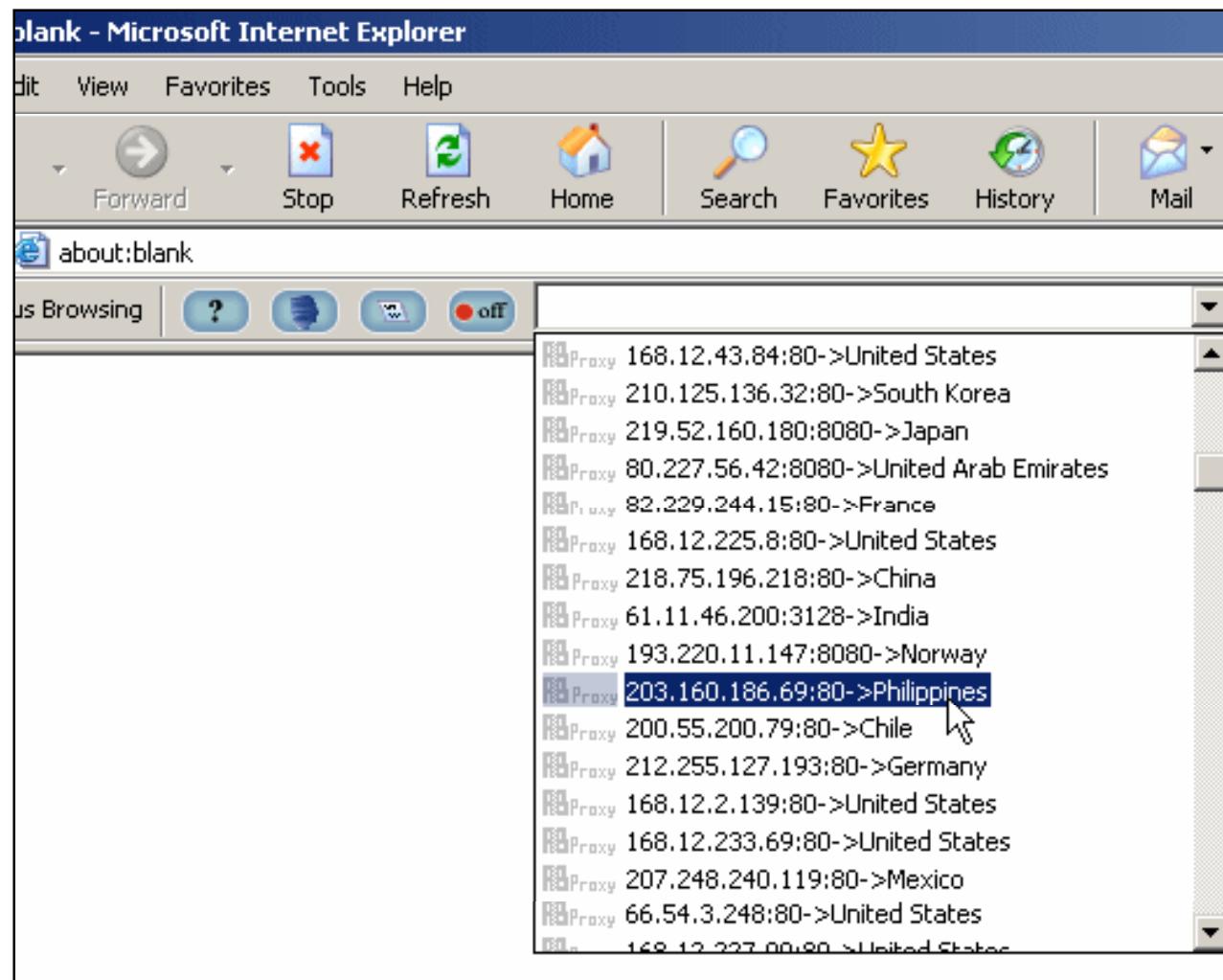
Anonymous Browsing Toolbar hides your IP address by routing your Internet traffic through remote servers

By selecting a proxy from a specific country, you are instantly given an IP address in that country

## Features & Benefits

- Hides/changes/masks your IP address
- Surfs the Internet in complete anonymity
- Posts on forums without displaying your real IP address
- Keep you anonymous in web chat rooms

# Anonymous Browsing Toolbar: Screenshot



# Invisible Browsing

Invisible Browsing hides IP address and lets you surf anonymously and preventing your IP or other confidential information to be collected

Invisible Browsing allows you to change your IP anytime by routing your Internet traffic through overseas servers

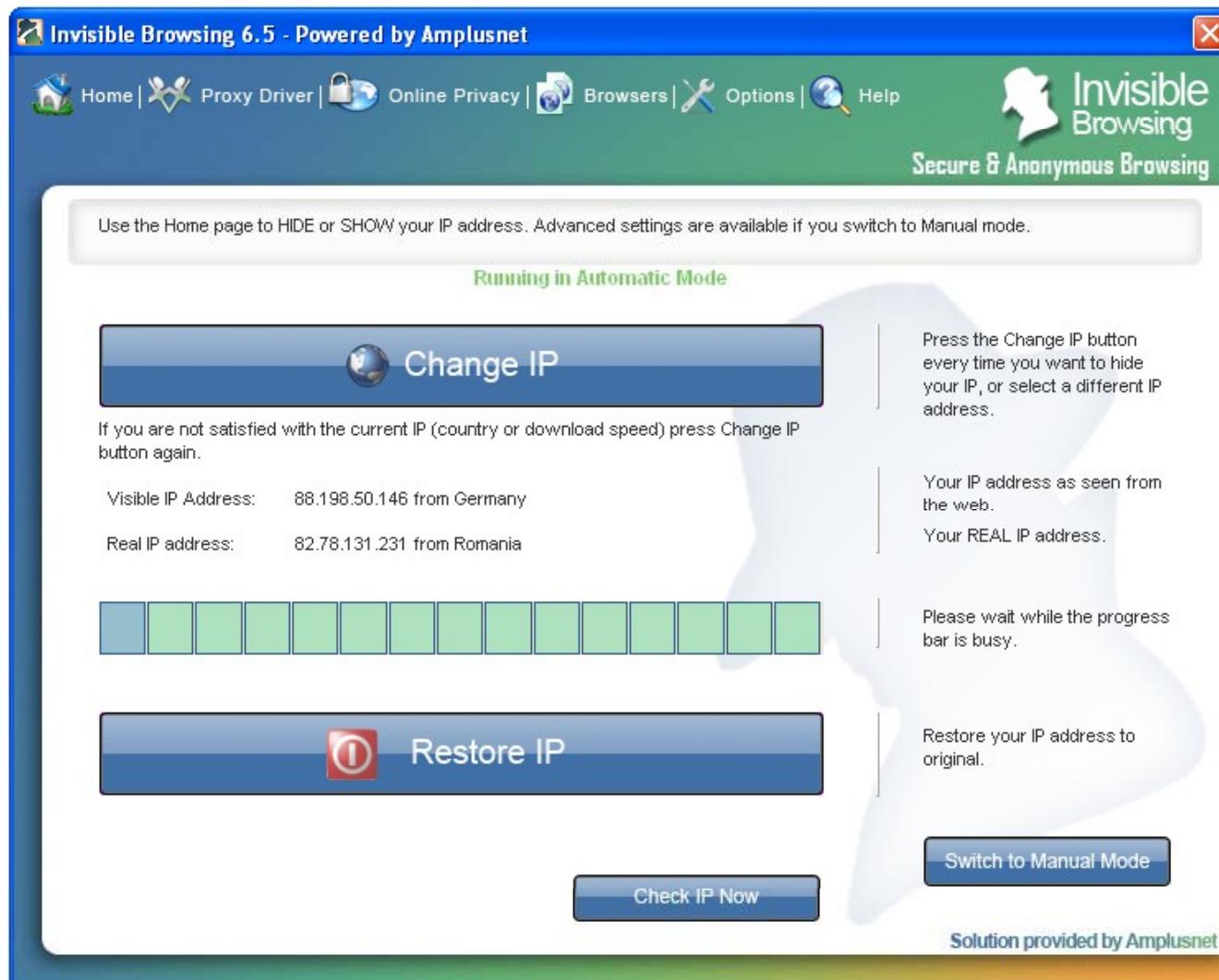


Invisible Browsing can also be used as a browser cleaner in order to protect your online privacy

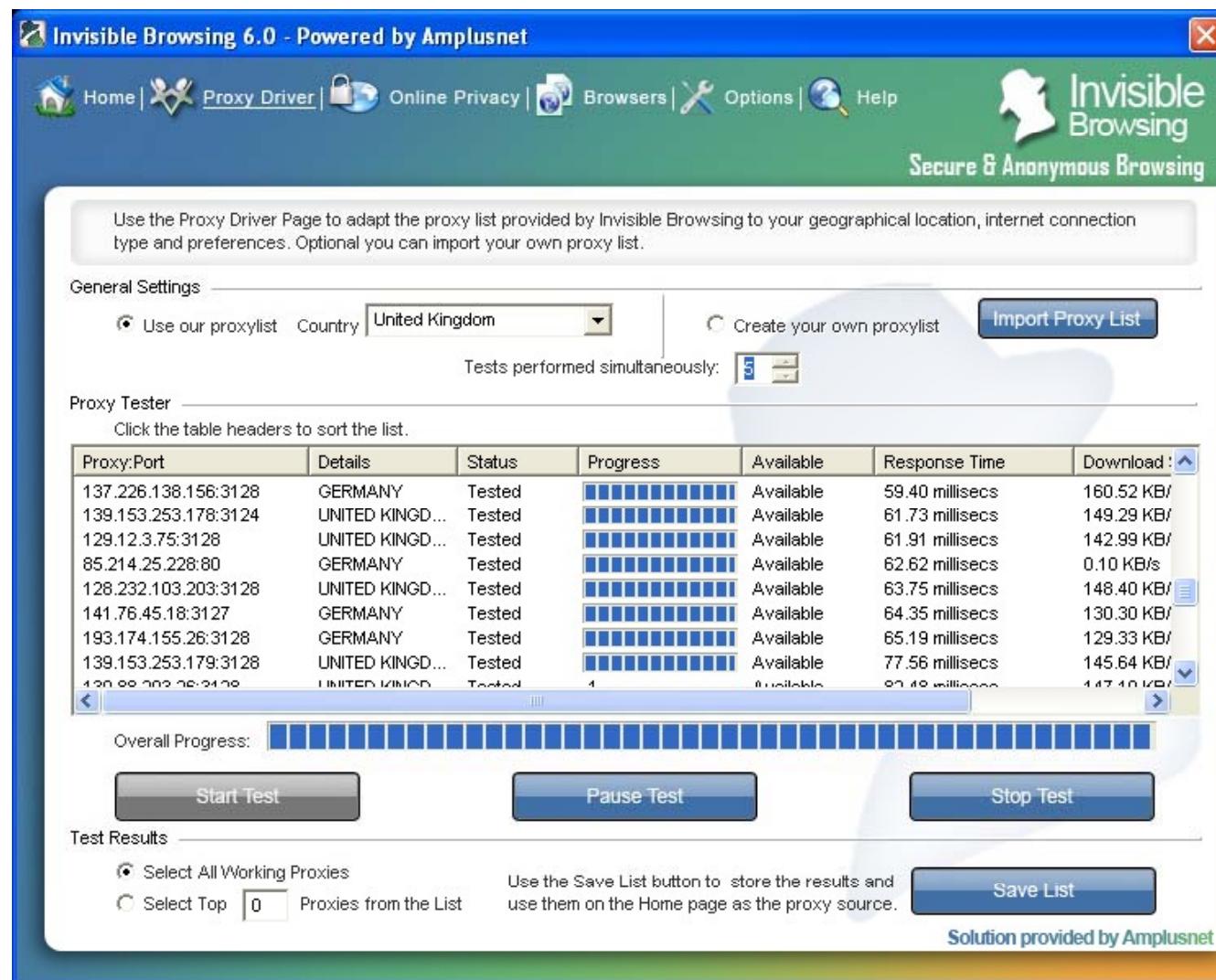


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# Invisible Browsing: Screenshot 1



# Invisible Browsing: Screenshot 2



# Real Time Cleaner

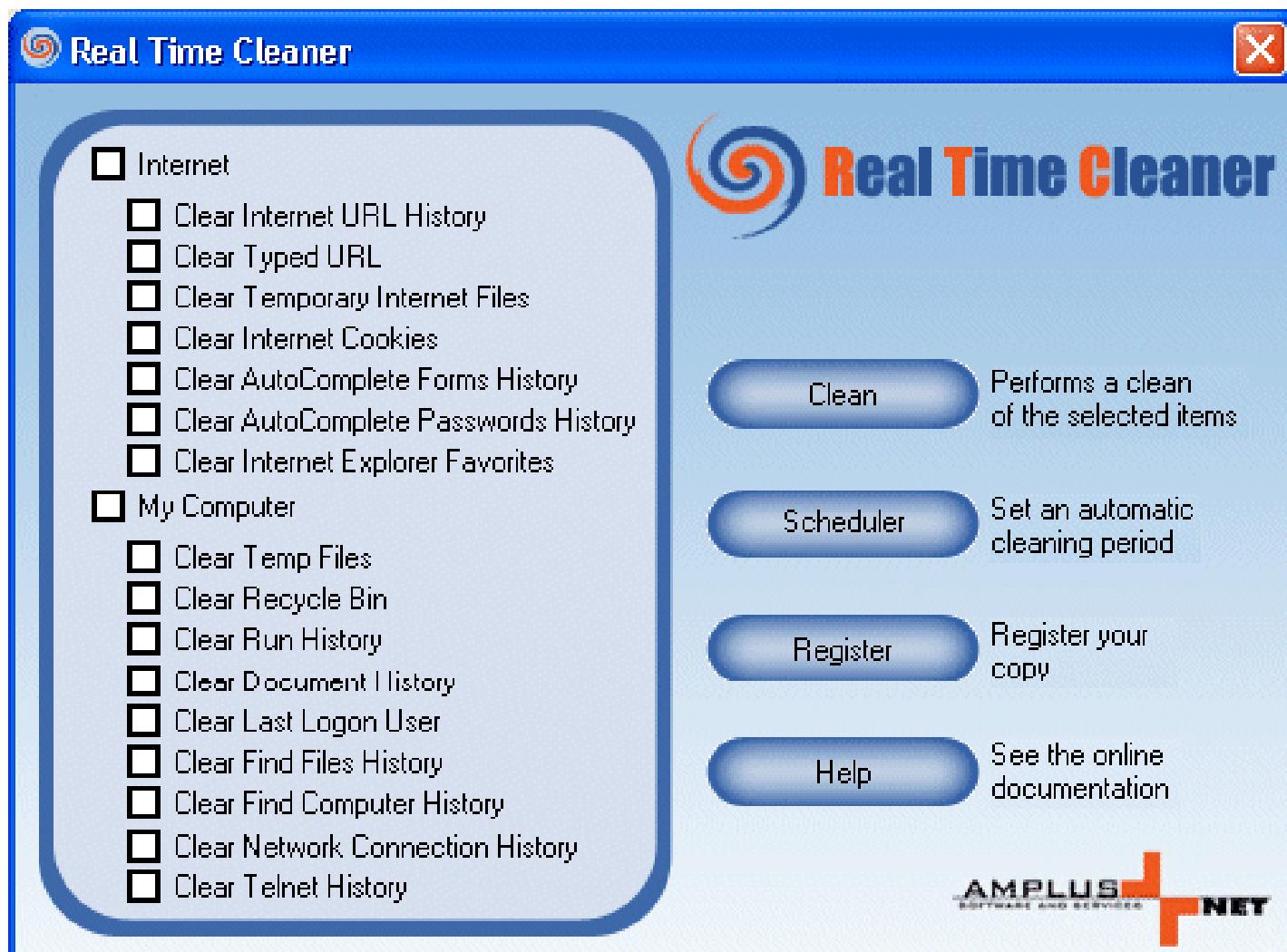
Real Time Cleaner maintains your online privacy by permanently erasing all your online tracks

## Real Time Cleaner deletes

- Browser History
- Browser Cookies
- Temporary Internet Files
- Last Typed URL
- Internet Explorer Favorites
- Auto Complete Forms and Password
- Typed URL History

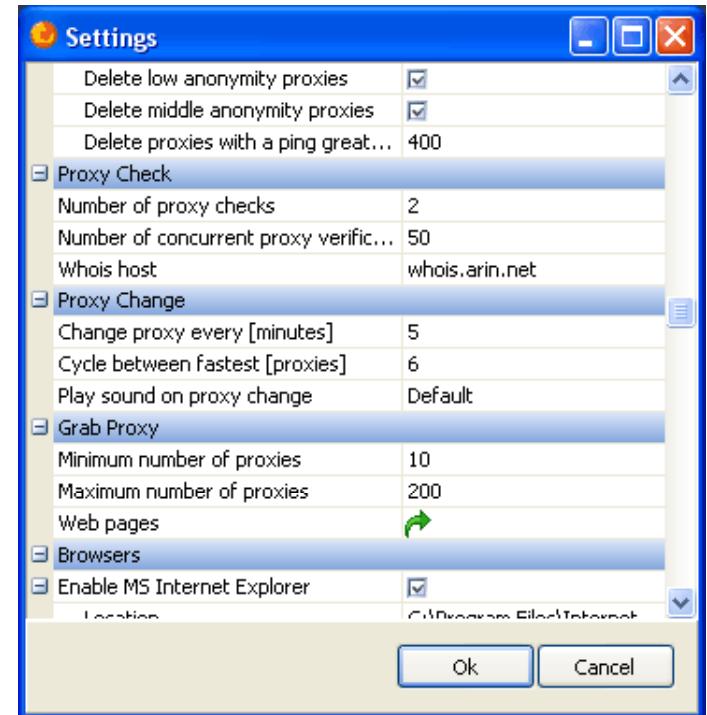
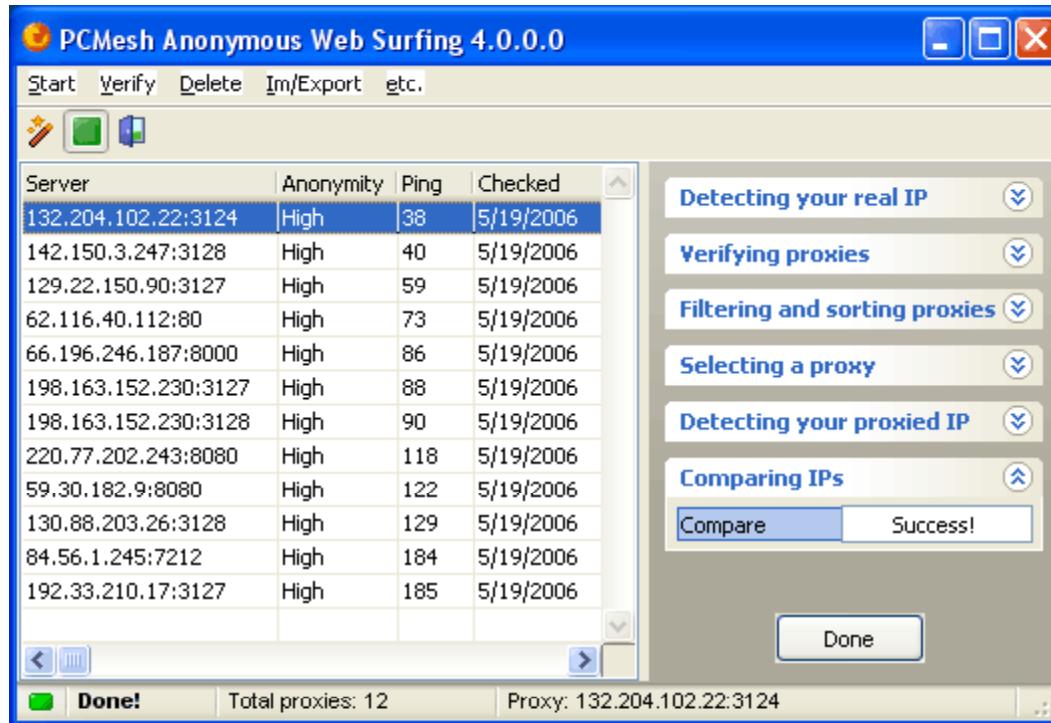


# Real Time Cleaner: Screenshot

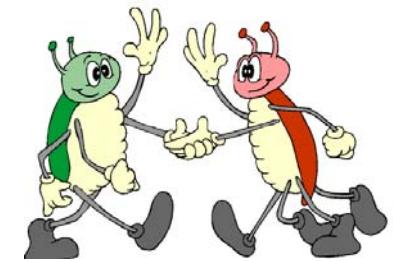


# Anonymous Web Surfing

Anonymous Web Surfing is a utility to let you hide your IP address when browsing the web



# Anonymous Friend

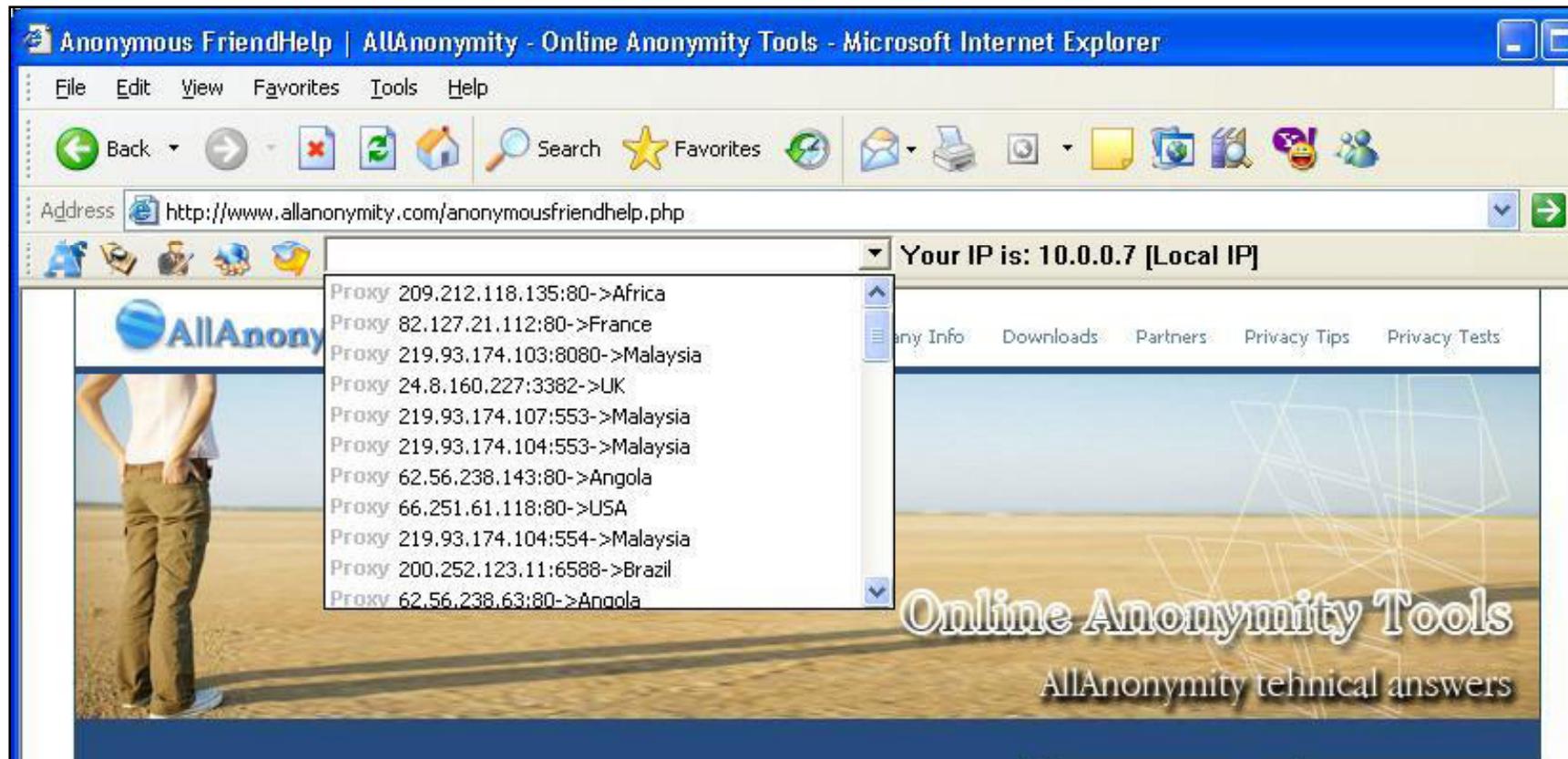


Anonymity Shield conceals your IP address by routing your traffic through foreign proxies

Choose one proxy from the dropdown list and click the enable button and you are anonymous online

All proxies allow dynamic Internet browsing, posting messages on various forums or voting

# Anonymous Friend: Screenshot



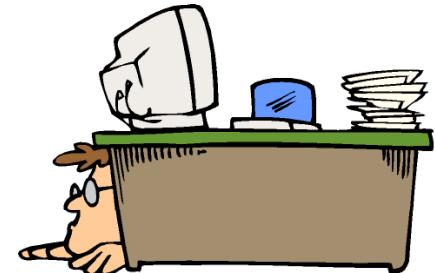
# Easy Hide IP

**Easy-Hide-IP - Secures and Anonymizes all your internet connections**

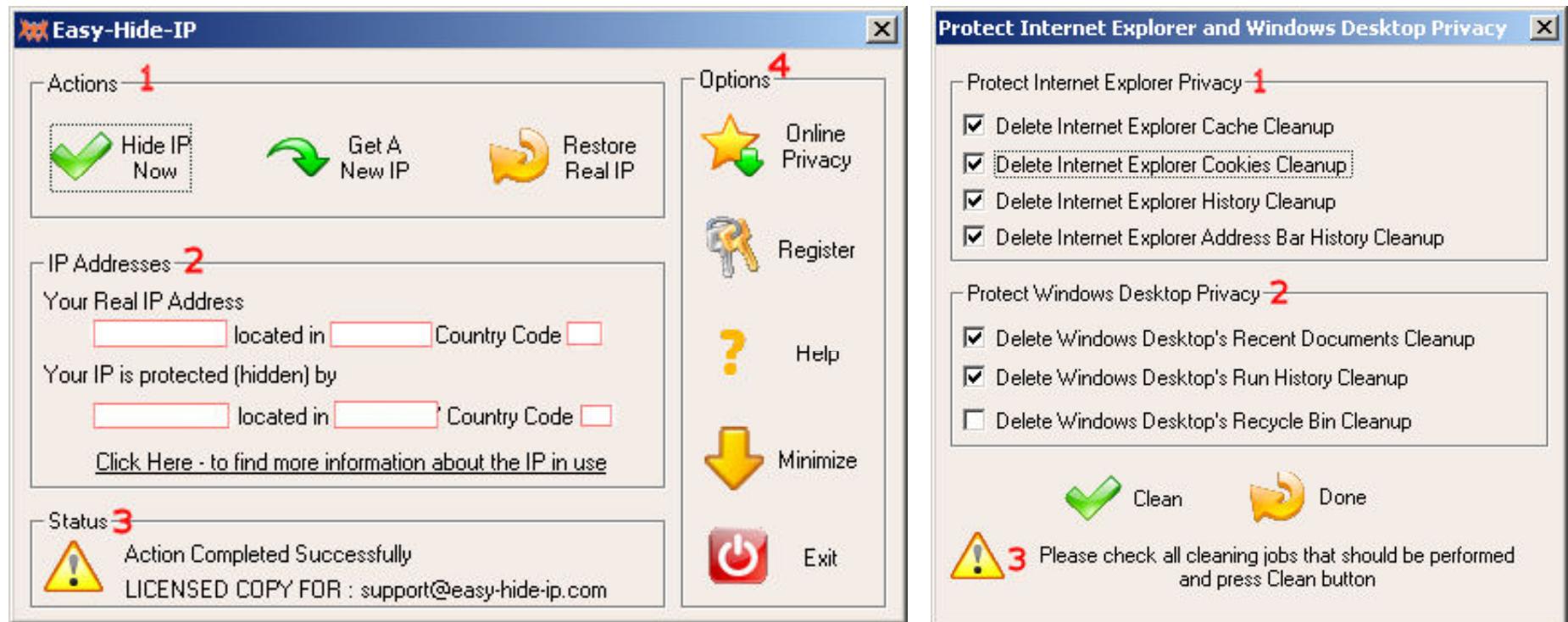
**Easy Hide IP protects your identity by replacing your real IP address with a different one**

**All your Internet traffic is routed through remote servers**

**On your ISP's log file, only the IPs of the remote servers will be shown, not the sites you have visited**



# Easy-Hide-IP: Screenshot



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# Internet Privacy Tools: Firewall Tools

# Agnitum Firewall

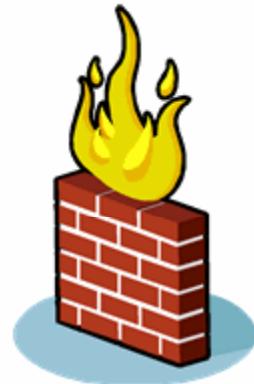
Two-way firewall stops inappropriate or malicious access to computer from both internal and external sources

Outpost's Host Protection module monitors how programs interact to protect system against high-level security

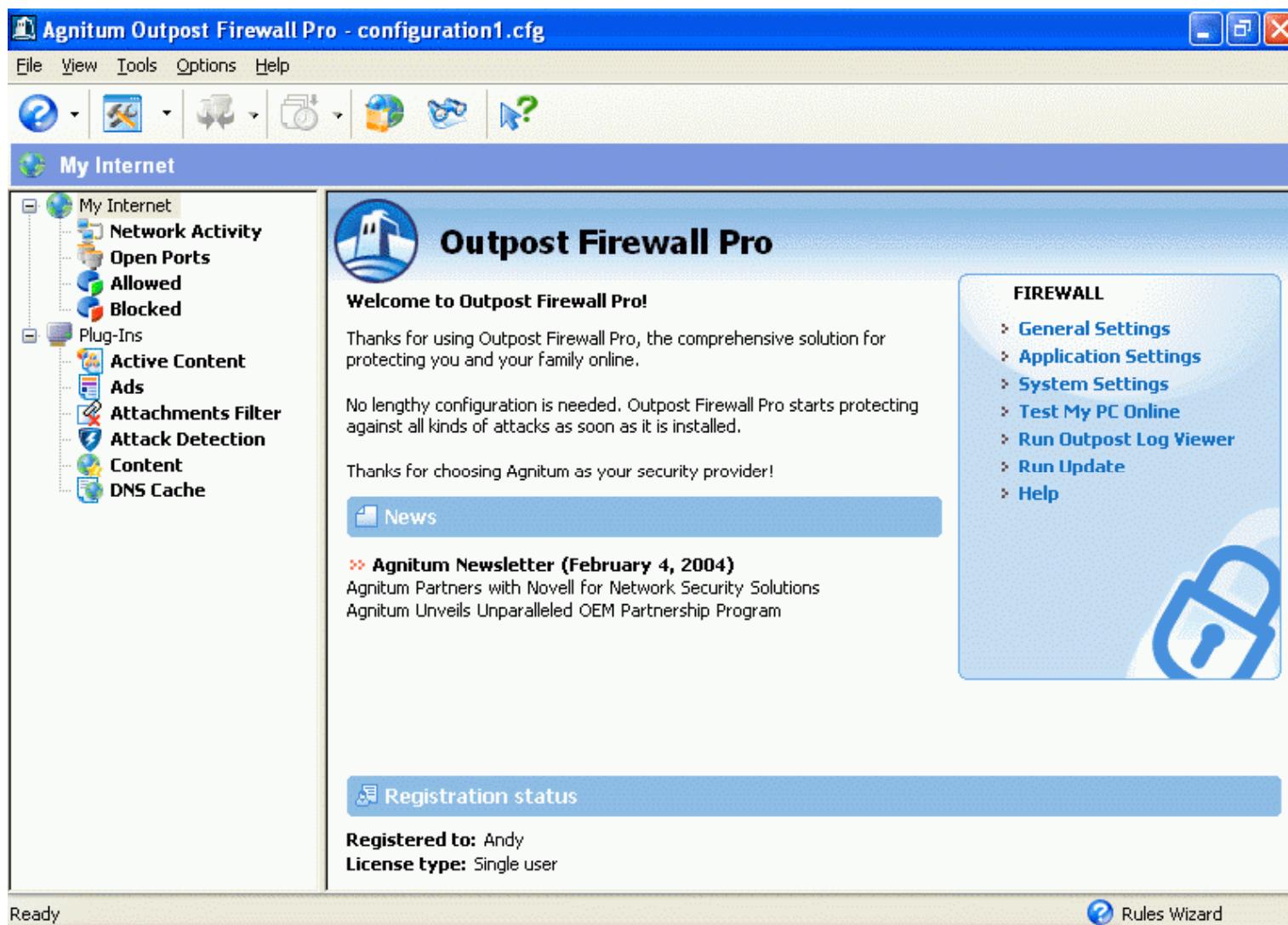
Eliminates spyware with Outpost's dedicated antispyware utility

Versatile Web Control module safeguards against the Internet's darker side

It steers away from websites infected with drive-by downloads, prevents the inadvertent disclosure of personal information



# Agnitum Firewall: Screenshot



Ready

Rules Wizard



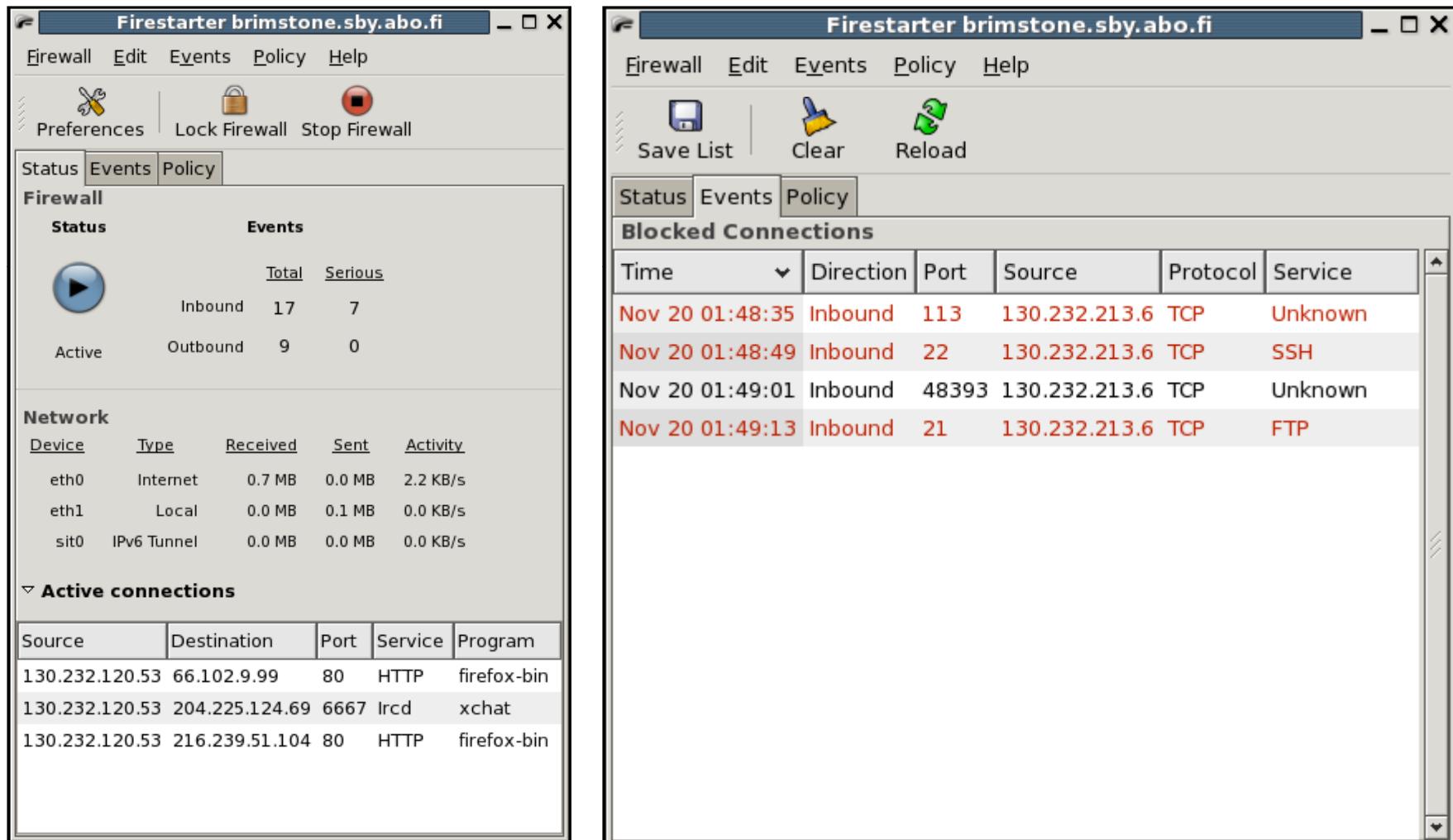
# Firestarter

Firestarter is a visual firewall program which supports Linux OS

## Features:

- Suitable for use on desktops, servers and gateways
- Real-time firewall event monitor shows intrusion attempts as they occurred
- Enables Internet connection sharing, optionally with DHCP service for the clients
- Open or stealth ports, shaping your firewalling with just a few mouse clicks
- Enables port forwarding for your local network in just seconds
- Option to whitelist or blacklist traffic
- Real time firewall events view
- Views active network connections, including any traffic routed through the firewall

# Firestarter: Screenshot



# Sunbelt Personal Firewall

This two way firewall keeps hackers out and private info inside

Blocks all externally originated IP traffic



Renders the desktop invisible to potential intruders

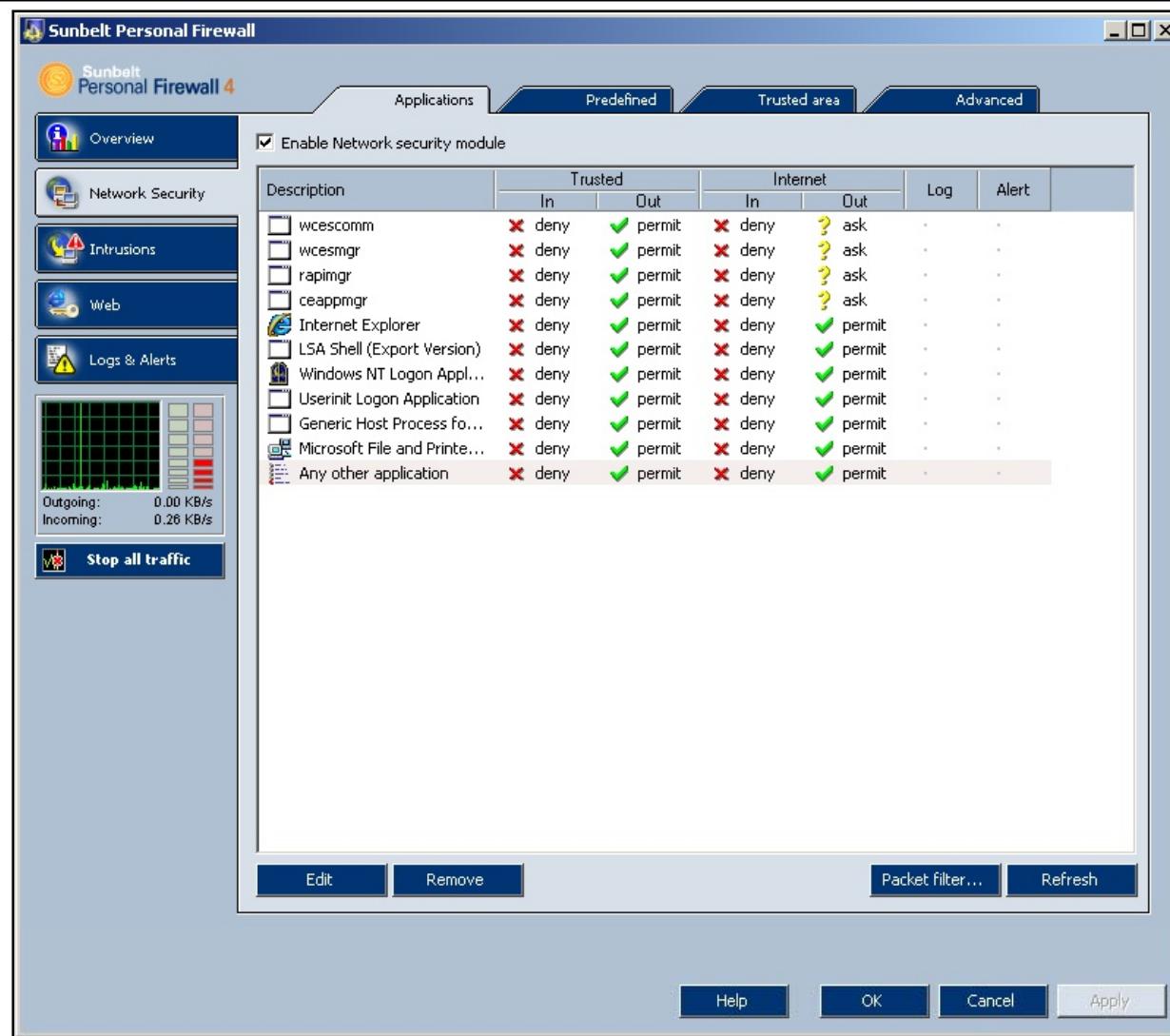
Protects the computer from Trojan horses imitating trusted programs

Displays clearly via the Opened Connections Overview what each application is doing at any given moment



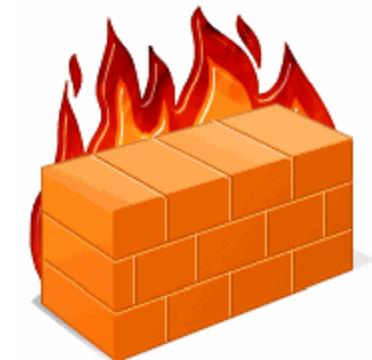
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# Sunbelt Personal Firewall: Screenshot



# NetDefender

NetDefender is a Firewall with source code



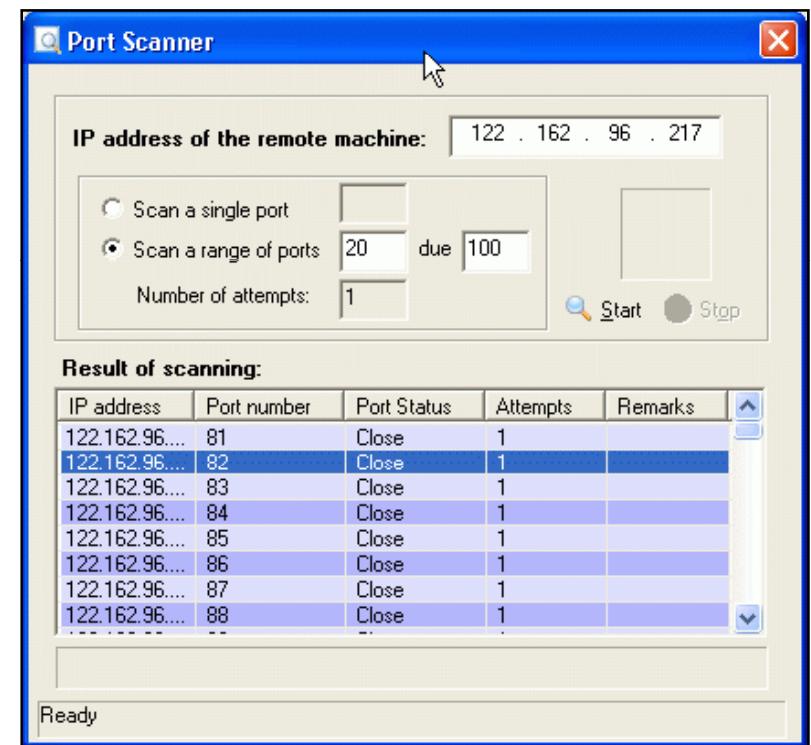
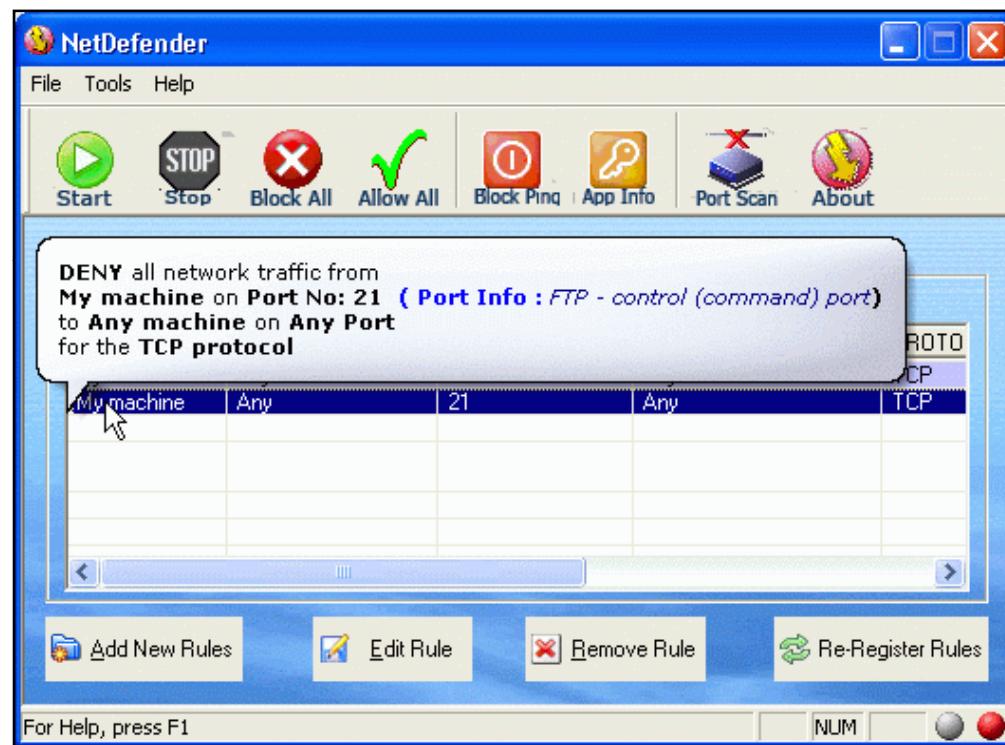
Netdefender works on windows 2000 and above version of windows

In windows XP with service pack 2, Default firewall is always running so it is necessary to stop before running the Netdefender

NetDefender Firewall is completely written in VC++ 7.1 using MFC, Windows API, and Filter Hook Driver

A Port scanner is also provided to scan the system for open Ports

# NetDefender: Screenshot



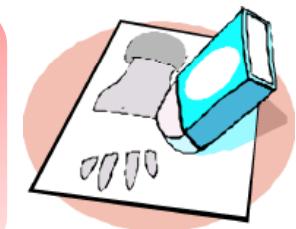


# Internet Privacy Tools: Others

# Privacy Eraser

Privacy Eraser is an Internet Eraser that protects Internet privacy by cleaning up all the tracks of Internet and computer activities

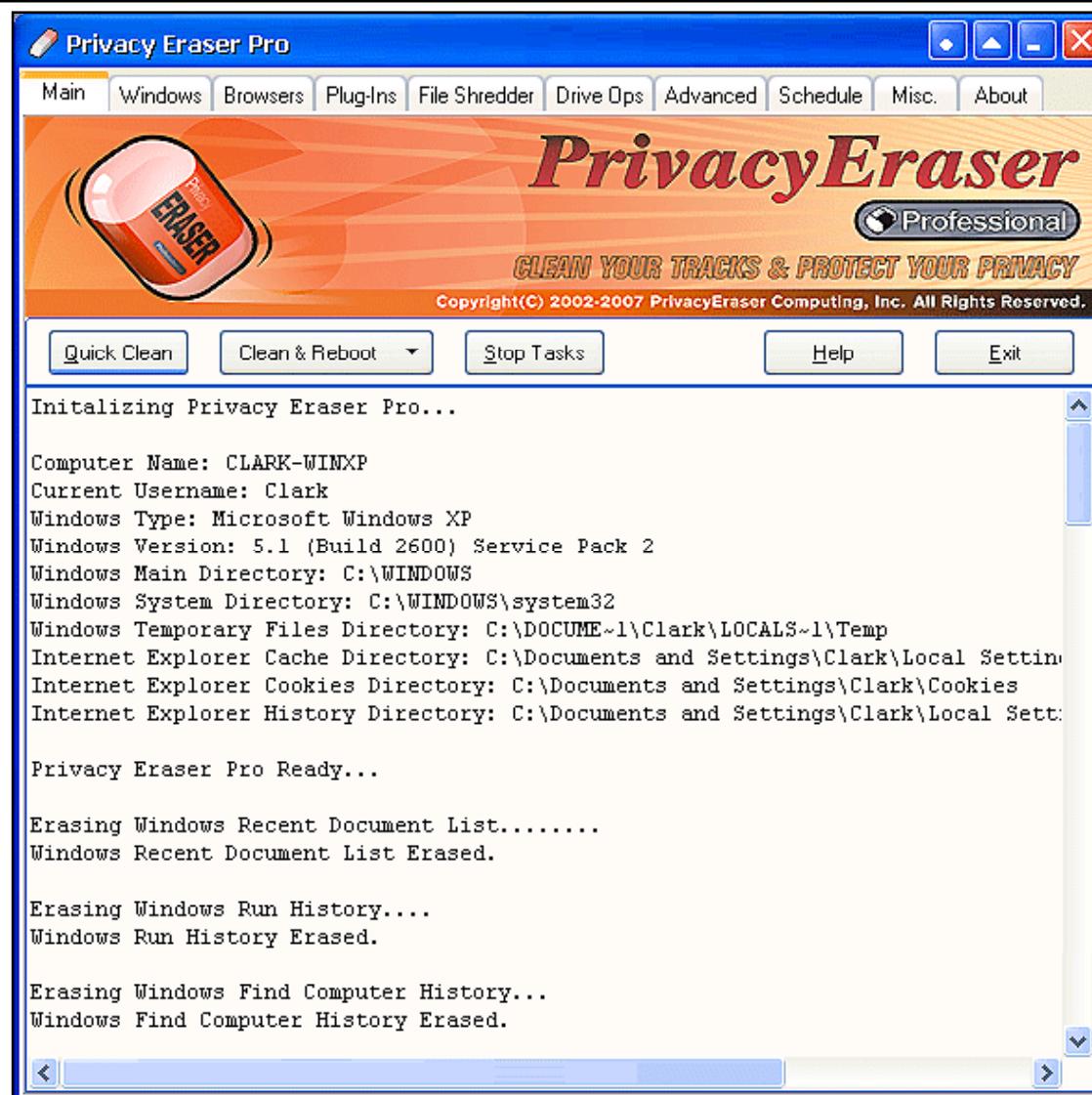
It supports all web browsers such as Internet Explorer, Mozilla, Firefox, AOL, Netscape, Opera, and MSN Explorer



Privacy Eraser supports free plug-ins to extend cleaning features it can easily erase the tracks left by any applications and make own plug-ins

Privacy Eraser supports Microsoft Windows FAT/FAT32/NTFS file systems

# Privacy Eraser: Screenshot



# CookieCop



CookieCop works in conjunction with most browsers and offers a broad array of tools and protects privacy

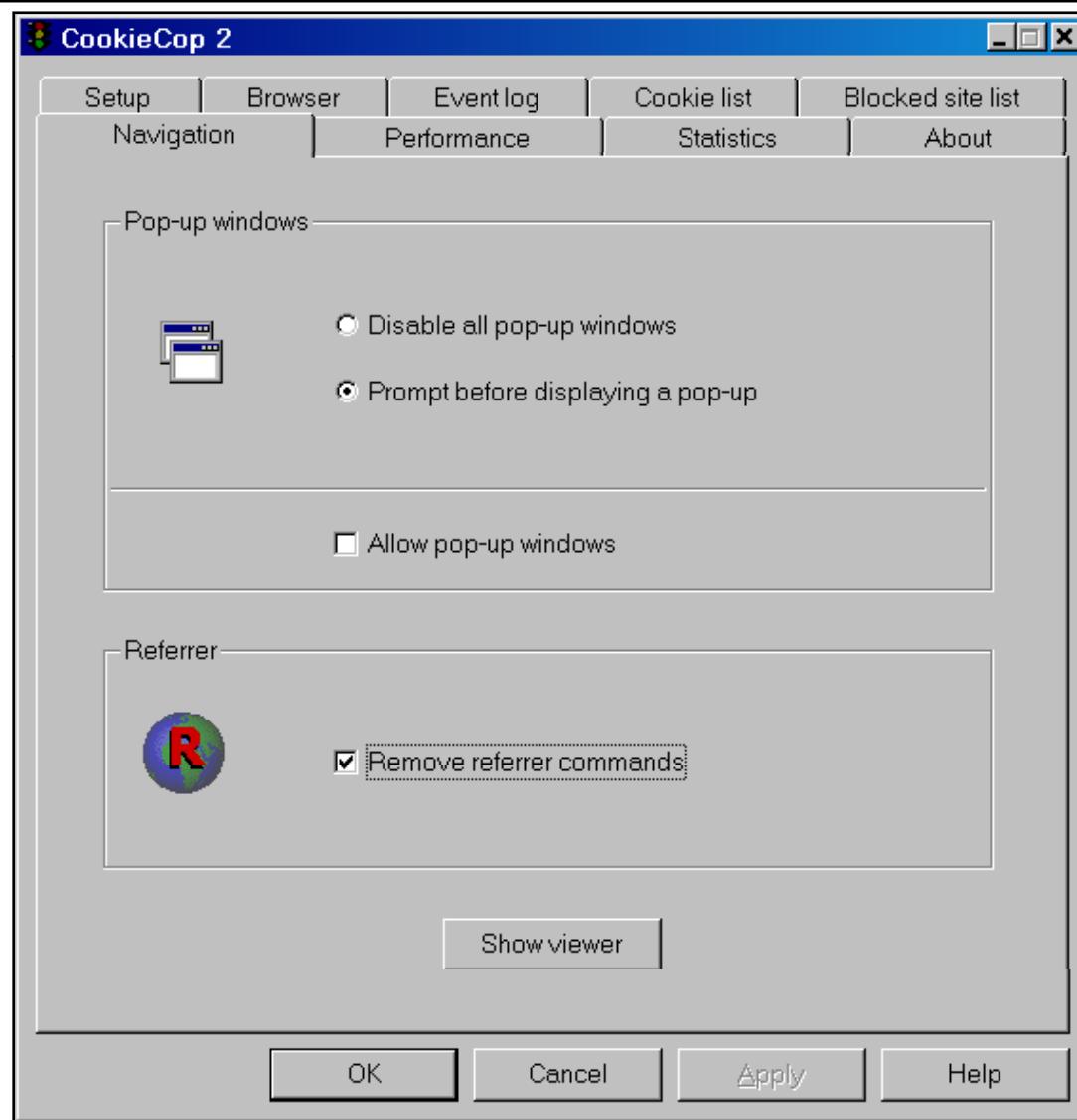
CookieCop is implemented as a proxy server; it acts as an intermediary between browser and the Internet, managing the cookies

It can convert permanent cookies into session-only cookies

It adds support for Hypertext Transfer Protocol, which greatly improves the program's performance

CookieCop Navigation tab frees you from pop-up windows and removing referrer commands

# CookieCop: Screenshot





# Cookie Pal

Cookie Pal is an Internet cookie management system for Windows 95, 98, ME, NT 4.0, 2000, and XP

Cookie Pal works with web browser to give complete control over the cookies which are accepted by and stored on system

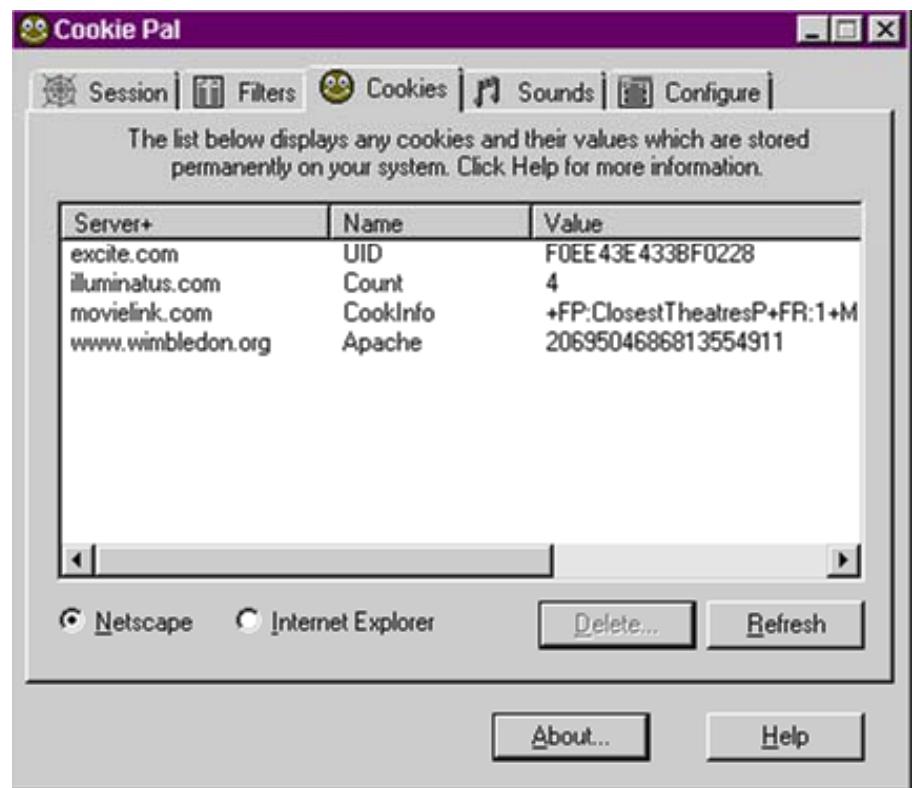
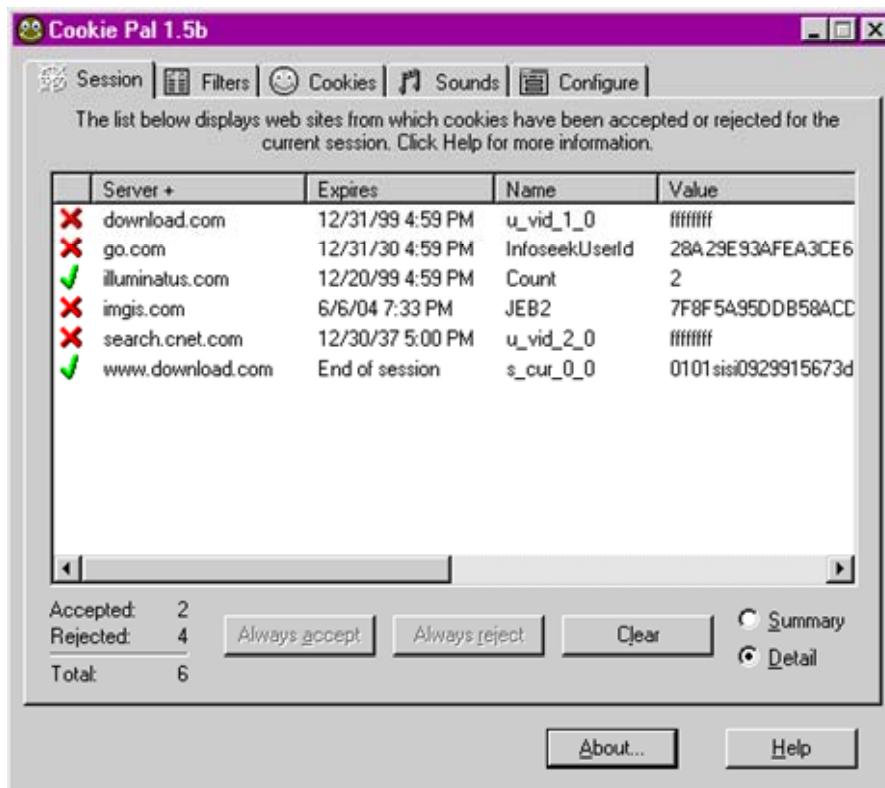
Automatically and transparently accepts or rejects cookies from all or specified servers without user interaction

Keeps a summary list of the number of cookies accepted and rejected from each server for the current session

Allows all cookies already on the system to be viewed and deleted

Can be customized to work with other software which receives cookies and displays cookie alerts

# Cookie Pal: Screenshot



# Historykill

Historykill securely deletes history traces on computer with the File Shredder

It obliterates traces Windows Fragmented Files, Media Player History List, Recycle Bin, Temporary Folders, System Swap Files, and Windows Application logs

Clears Google bar search history

It erases URL history list from address bar, URL history files, temporary Internet files, AutoComplete form fields & passwords, 'index.dat' files, and Cookies





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# Historykill: Screenshot 1



# Historykill: Screenshot 2





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# Tracks Eraser

Tracks eraser securely erases files beyond recovery

Tracks eraser with free plugins can delete history of popular applications such as real player, real one, media player, and divx player

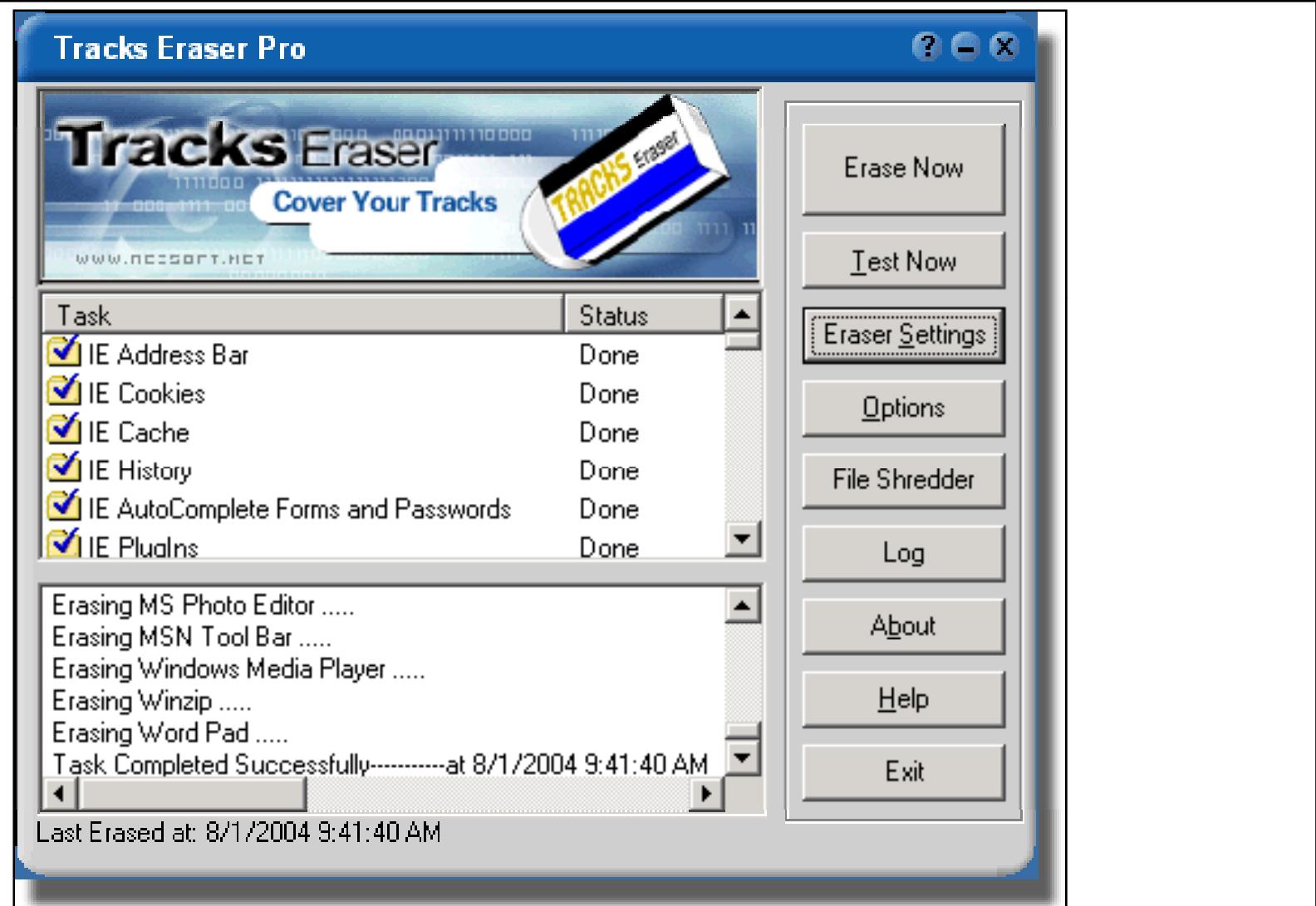
It overwrites the files with blank character, gives the confidence that once erased by Tracks Eraser Pro, the files will be gone and no one can recover or undelete them

Custom Erase Item can choose to erase own files and registry

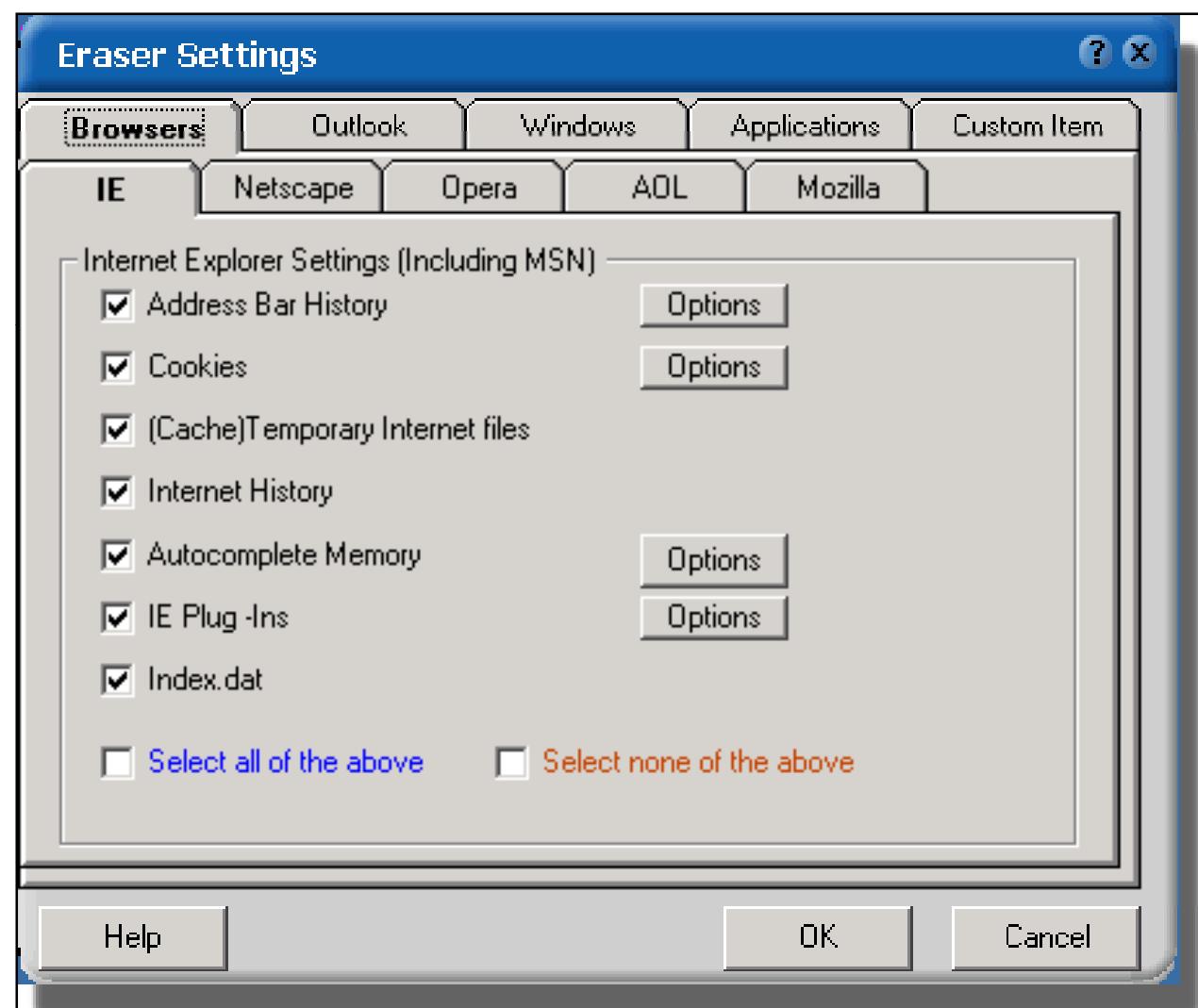
It prevents the websites from modifying homepage

It can free up a lot of disk space used by the cache and temp files

# Tracks Eraser: Screenshot 1



# Tracks Eraser: Screenshot 2



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# Best Practices



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# Protecting Search Privacy

Do not search for personally identifying information such as name, address, credit card number, and social security number

Do not use your ISP's search engine as it can link your identity to your searches

Do not login to your search engine while searching as your searches can be linked to each other and to your personal account

Block cookies from your search engine or allow short-lived session cookies

Use dynamic IP address

If you are using static IP address, use web proxies and anonymizing software for surfing

# Tips for Internet Privacy

Visit sites that have adequate privacy policies that cover:

- To whom information will be passed onto
- Why the information is being collected
- How the information will be used
- How can information access the organization

Install and use privacy enhancing software including:

- Firewall
- Cookie Remover
- Web Bug Remover
- Anonymous Web Browsing
- Encrypted Email
- Anti-Spam Tools
- Anti-Spyware Tools



# Tips for Internet Privacy (cont'd)

Only give as much personal information as you are comfortable with

Use an online identity and free email service to protect against giving out your details to spammers





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# Countermeasures

Do not reveal personal information inadvertently

Turn on cookie notices in Web browser and use cookie management software

Keep a clean e-mail address

Realize one may be monitored at work, avoid sending highly personal e-mail to mailing lists, and keep sensitive files on personal pc

Beware of sites that offer some sort of reward or prize in exchange for contact information or other personal details

Do not reply to spammers and be conscious of Web security

Use encryption and cryptography techniques

# Summary

Internet privacy is the ability for an individual to access the Internet without any fear

Spyware is software that sneaks onto computer and watches what going on computer without permission

Cookie is a very small text file placed on hard drive by a Web Page server

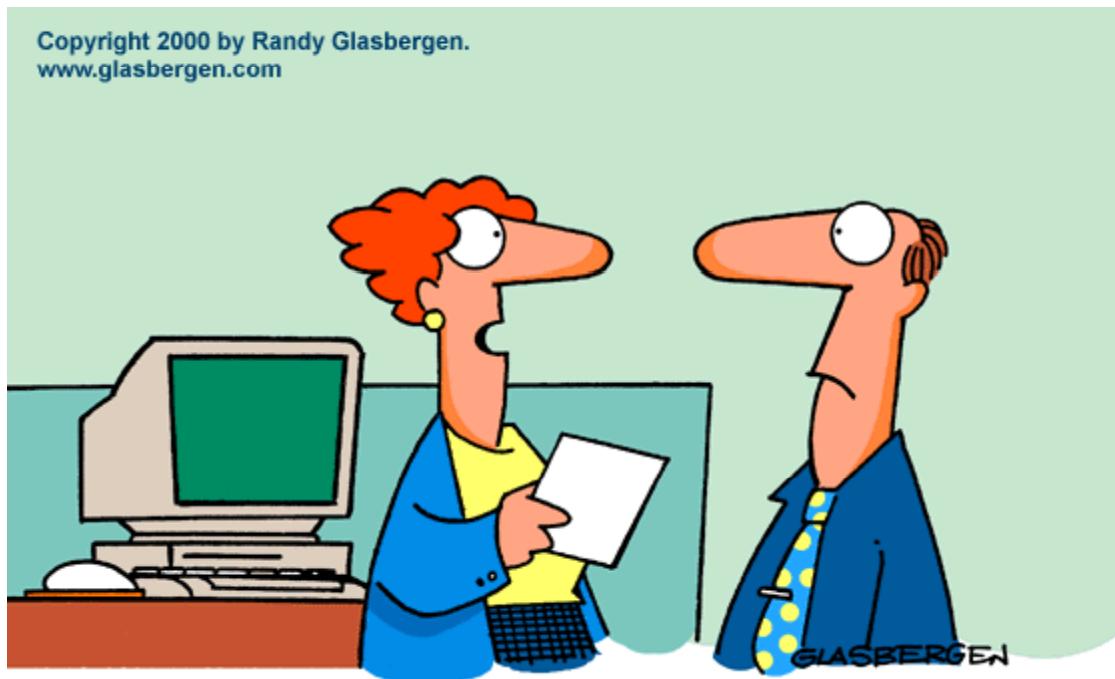
Information provided while purchasing any products online will be reused for another purpose or sold to direct marketers

Privacy Eraser is an Internet Eraser that protects Internet privacy by cleaning up all the tracks of Internet and computer activities

Buzof enables to automatically answer, close, or minimize virtually any recurring window including messages, prompts, and dialog boxes



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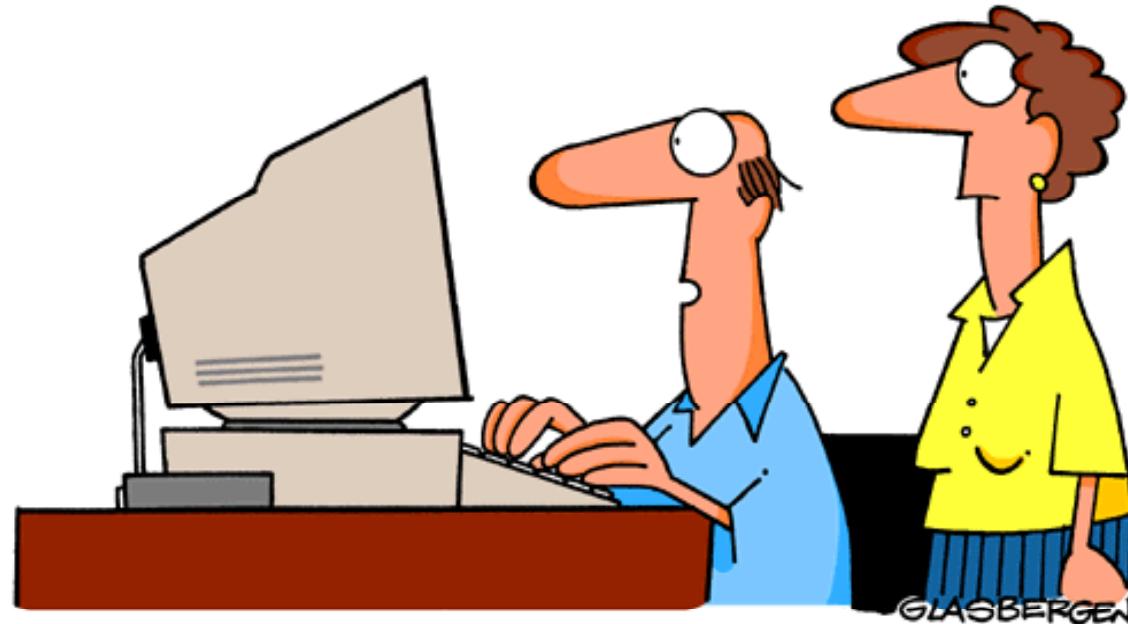


"OUR COMPETITION LAUNCHED THEIR WEB SITE, STOLE ALL  
OF OUR CUSTOMERS AND PUT US OUT OF BUSINESS  
WHILE YOU WERE IN THE JOHN."



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**"I don't invest online anymore. I could never tell if the stock market was crashing or just my computer."**