



Ethical Hacking and Countermeasures

Version 6



Module XLV

Privacy on The Internet

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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Web site poses problems for privacy

By: Furah 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/>

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.

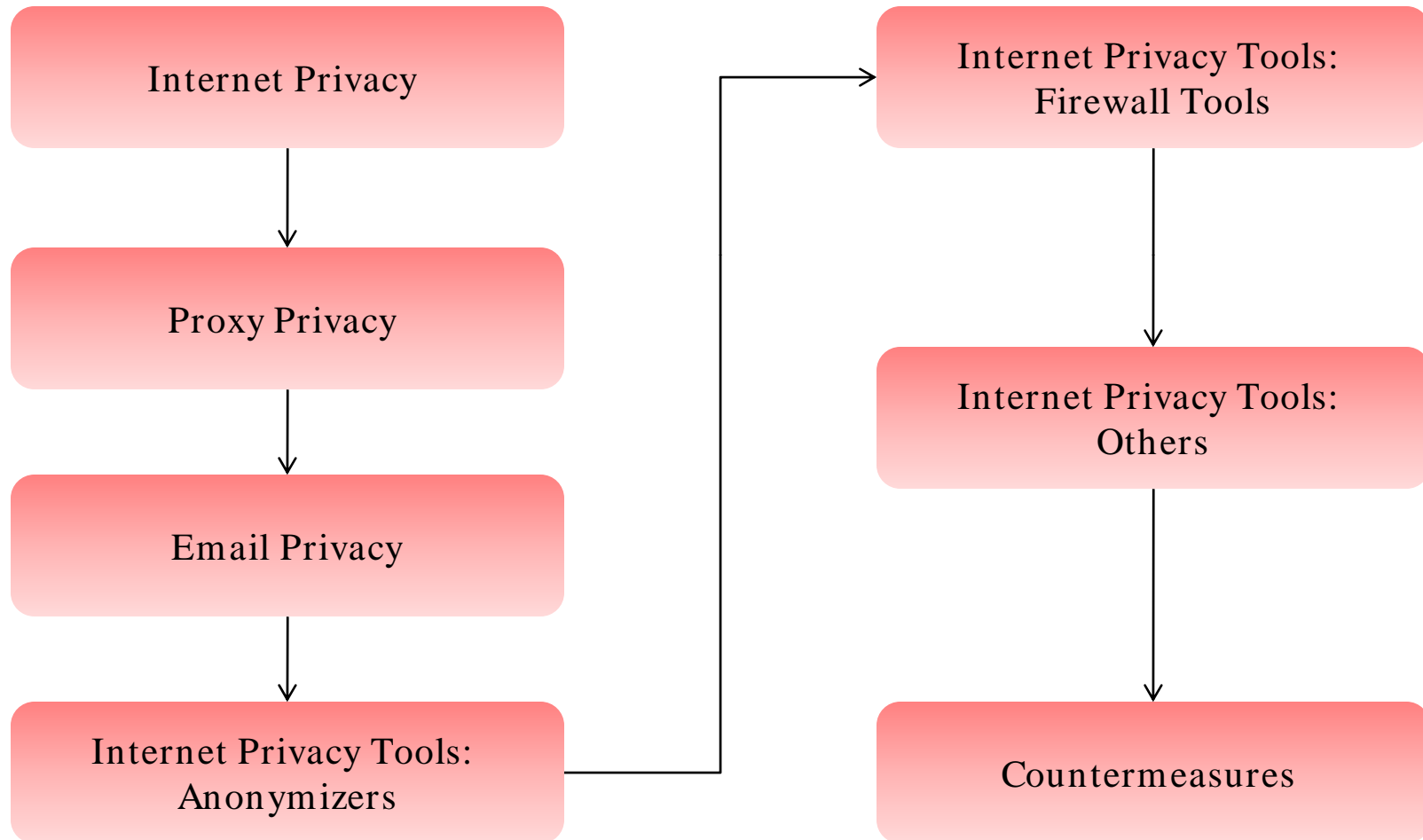
Source: <http://media.www.thedailyaztec.com/>

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



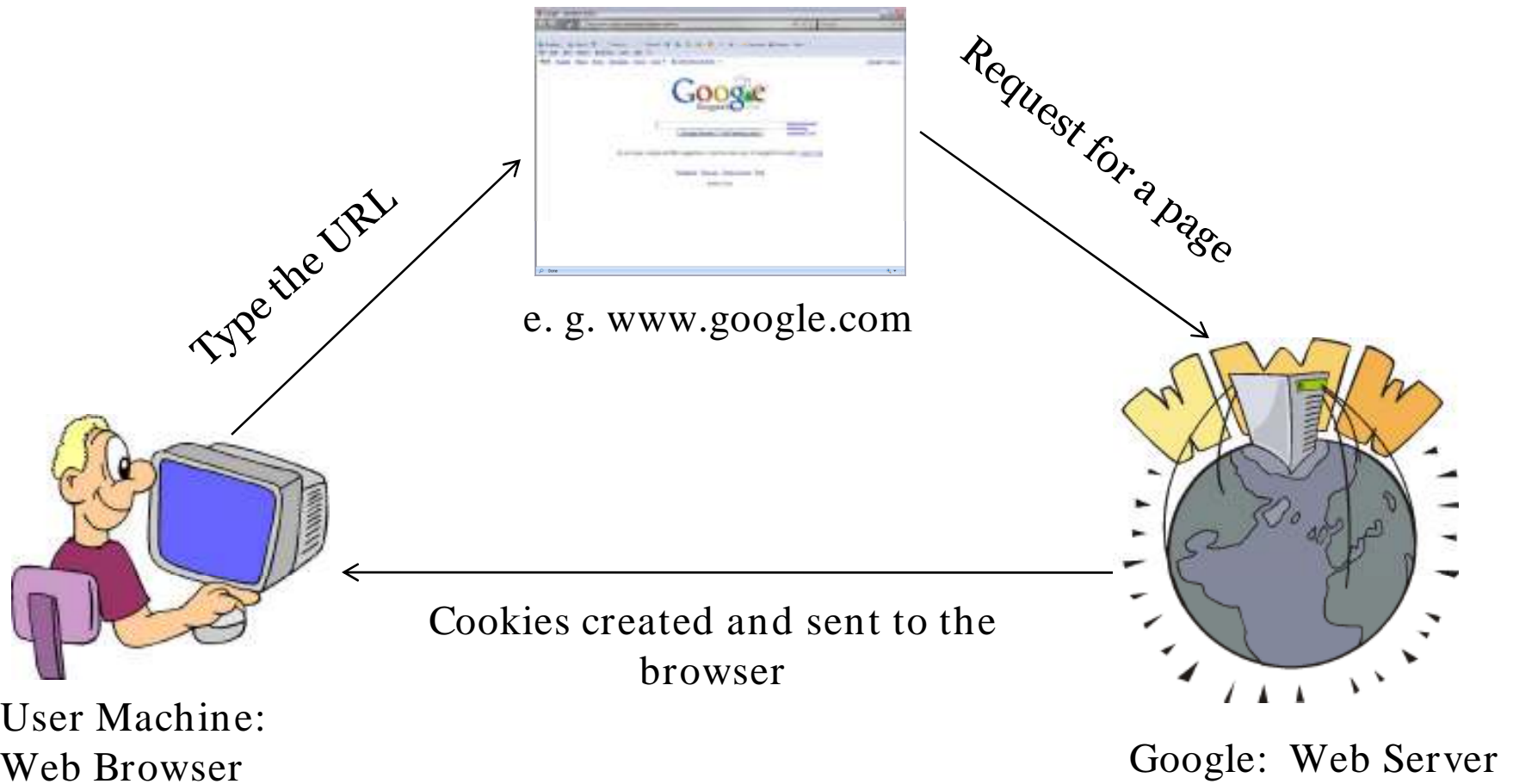
Examining Information in Cookies

- ◉ 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

Google™



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.

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.

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

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 allow 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 are 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

Real IP Address 123.45.6.78
Everyone else sees 111.222.33.4

Makes Internet security a snap with one-click identity theft protection

Utilizes the same encryption as banks and financial institutions

Stops you from unknowingly visiting sites that host known security threats, like phishing and pharming attacks

Real-time indicators show you the threats that you are protected against

Anonymous Surfing™ Control Panel

Anonymous Surfing is:
 On
 Enable Surfing Security™ SSL Encryption
 Enable Malicious Web Site Filtering
 Off

Identity Protection:
 Anonymous Surfing keeps your IP address and your online identity secure.

Real IP Address 123.45.6.78
Everyone else sees 111.222.33.4

Protection Indicators:
 Are you completely protected? Ensure maximum security with Anonymous Surfing's online identity protection features:

IP Anonymity	Protected	?
Anti-Phishing	Protected	?
Anti-Pharming	Protected	?
Wi-Fi Security	Protected	?
Malicious Web Site Filtering	Protected	?

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

The screenshot shows the Anonymizer Total Net Shield application window. The interface includes a menu bar (File, Mode, Listening Manager, SSH Manager, HTTP Proxy, Log, Help), two main settings panels, a row of utility buttons, and a log window.

Active Listening Settings

Listening Interface	SSH Port Forwarding Destination
127.0.0.1:25	smtp.anonymizer.com:25
127.0.0.1:110	mail.anonymizer.com:110
127.0.0.1:80	cyberpass.net:80
127.0.0.1:119	tnews.anonymizer.com:119
127.0.0.1:9999	cyberpass.net:9999

SSH Quick Settings

Host:
Username:
Password:
 Save encrypted password

Utility buttons: Running in Secure Mode (lock icon), Open Web Browser (globe icon), Open Email Client (envelope icon), Open News Reader (newspaper icon), Logout (globe with arrow icon).

Log

- 08:41:30.099 SSH Session: Server version string: SSH-2.0-OpenSSH_3.8.1p1 Debian-8.sarge.4
- 08:41:30.536 SSH Session: Server authenticated, host key algorithm: ssh-dss, MD5 fingerprint: 0f:ff:71:31:bd:d5:5c:81:b7:37:06:41:79:06:35:29, Bubble-Babble: xudec-somod-pesiz-gohac-devel-regim-hymed-fufih-podic-rutet-byxox.
- 08:41:30.661 SSH Session: Connection encryption: aes256-cbc, MAC: hmac-sha1, compression: zlib.
- 08:41:50.989 SSH Session: Authentication complete.

Callouts:

- Shields your IP address and your identity (points to Listening Interface column)
- Protects your instant messaging, message board discussions, and blog postings (points to Log window)
- Configures your newsgroups (points to SSH Quick Settings)
- Encrypts your email (points to Open Email Client button)

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



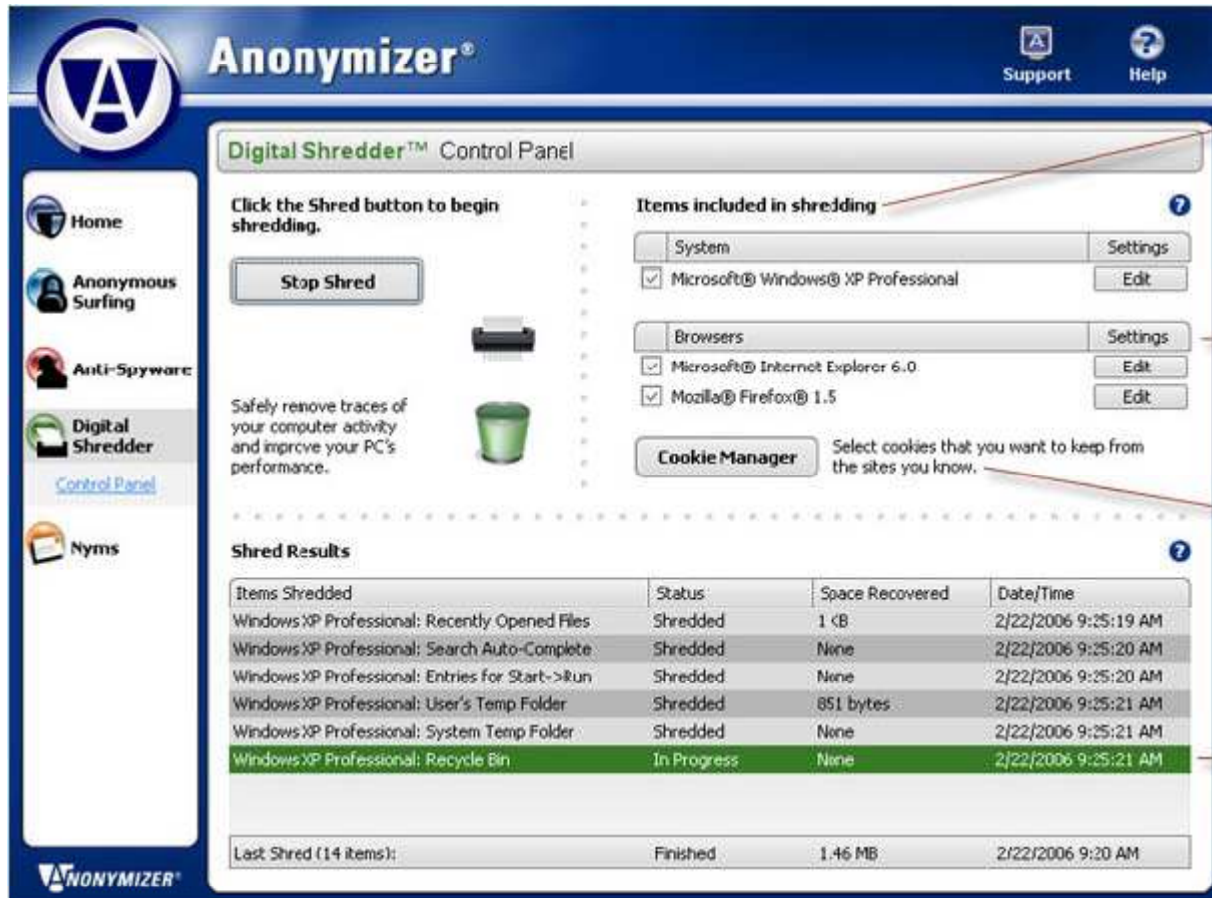
Anonymizer Digital Shredder Lite

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



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

The screenshot displays the Steganos Internet Anonym VPN web interface. The browser window title is "Steganos Internet Anonym VPN". The page features a navigation menu with "Exclusion", "Feedback", "Help", and "About". The main header includes the Steganos logo and the text "Steganos Internet Anonym VPN".

My account

General

- Valid through: 02.12.2007
- Anonymity: You are NOT anonymous (213.83.35.136) (refresh)
- Traffic consumption (monthly view): February 2007 26,159 GB / 25 GB
- Traffic consumption (daily view): A bar chart showing daily traffic consumption in GB for days 1 through 28. The y-axis ranges from 0 to 6,212 GB. The bars show consumption for days 1, 2, 3, 4, 5, and 6, with values decreasing over time.

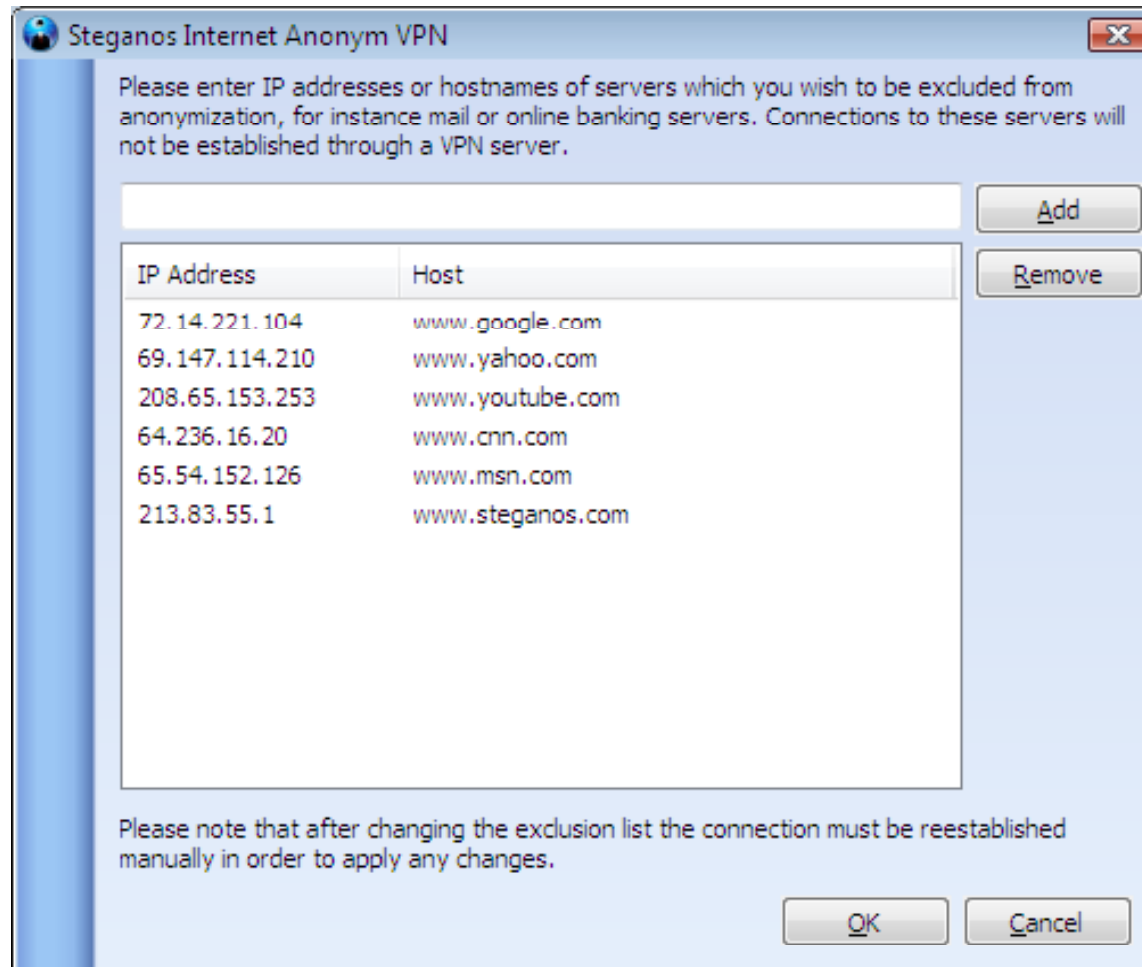
Connection

You are currently not using a secure connection. Click on "Connect" to establish an anonymized and encrypted connection to the Internet.

Settings

Access to Steganos Internet Anonym VPN has been activated. You can connect to the Steganos VPN server.

Steganos Internet Anonym: Screenshot 2



Steganos Internet Anonym: Screenshot 3

The screenshot displays the Steganos Internet Anonym VPN web interface. The window title is "Steganos Internet Anonym VPN". The navigation menu includes "Exclusion", "Feedback", "Help", and "About". The main header features the Steganos logo and the text "Steganos Internet Anonym VPN".

My account

General

Valid through: 23.02.2008

Anonymity: Your anonymous IP address: 85.25.20.249 ([verify IP](#))

Traffic consumption (monthly view)

February 2007: 26,212 GB / 25 GB

Traffic consumption (daily view)

Day	Traffic (GB)
1	6.212
2	6.212
3	6.212
4	6.212
5	6.212
6	6.212
7	6.212
8	6.212
9	6.212
10	6.212
11	6.212
12	6.212
13	6.212
14	6.212
15	6.212
16	6.212
17	6.212
18	6.212
19	6.212
20	6.212
21	6.212
22	6.212
23	6.212
24	6.212
25	6.212
26	6.212
27	6.212
28	6.212

Connection

You are now connected to the Internet through the Steganos VPN server. Your connection has been anonymized and encrypted.

[Disconnect](#)

Settings

Access to Steganos Internet Anonym VPN has been activated. You can connect to the Steganos VPN server.

[Change serial number](#)

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



Invisible IP Map: Screenshot 1



Invisible IP Map: Screenshot 2

Invisible IP Map Version 2.7
Stop showing your real location and get a new one!
Select your location in the World!

Your Real IP: [blurred]
Your New IP: 66.214.188.68

Information About Your Real IP

Your Real IP:	[blurred]
Your Country Flag:	
Your Country Name:	Netherlands
Your Region Name:	Noord-Holland
Your City Name:	Amsterdam

Information About Your New IP

New IP Address:	66.214.188.68
Country Flag:	
Country Name:	United States
Region Name:	California
City Name:	Burbank
Protection Type:	Elite
Speed:	2 Sec.
Distance from you:	13525 km

Tip
IP Information
Note that there might be a little inaccuracy of the City name or the exact distance in some cases.
Information about your New IP is only filled when you chose to use a new IP.

Navigation: Invisible Status, Map Outlook, Location List, IP Status, Proxy checker, Settings

<http://www.InvisibleIPMap.com>

Invisible IP Map 2.7 Finished checking the servers.

Invisible IP Map: Screenshot 3

Invisible IP Map Version 2.7
Stop showing your real location and get a new one!
Select your location in the World!

Your Real IP: [blurred]
Your New IP: Not selected

Start checking the proxy list.

Proxy	Type	Status	Timeout
202.157.43.198:26029	Unknown	Checking...	Unknown
218.104.180.228:808	Elite	OK	5 Sec.
67.191.246.102:6051	Unknown	Not working	Unknown
130.13.126.241:27774	Elite	OK	2 Sec.
220.55.68.65:80	Unknown	Checking...	Unknown
64.53.164.145:6180	Unknown	Not working	Unknown
82.165.31.133:8889	Unknown	Checking...	Unknown
85.185.16.126:8080	Transparent	OK	0 Sec.
88.235.158.151:80	Elite	OK	2 Sec.
86.65.167.6:20820	Unknown	Checking...	Unknown
125.31.16.143:5733	Unknown	Unknown	Unknown
211.216.200.241:8080	Unknown	Unknown	Unknown
217.132.192.88:19381	Unknown	Unknown	Unknown

Check List
Delete IPs
Clear List

Tip
Proxy checker
To change your IP to a working server from the list just double-click it.

62%

<http://www.InvisibleIPMap.com>

Invisible IP Map 2.7 | You are using your Real IP now.

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

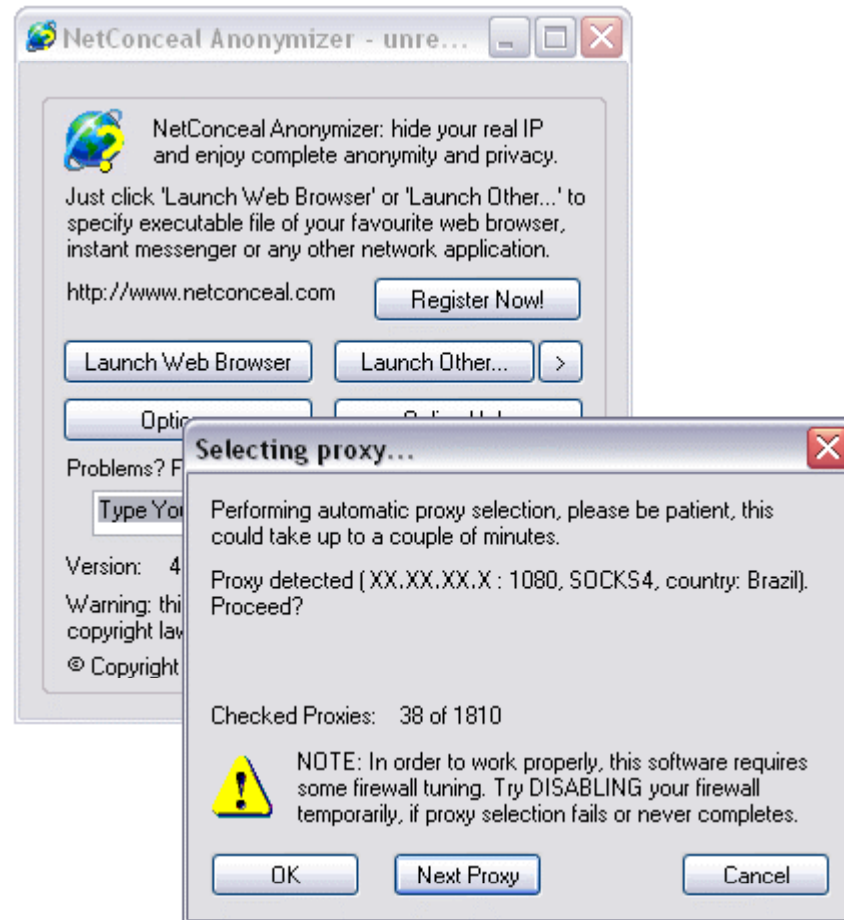
It uses special SOCKS protocol to communicate with proxy servers instead of communicating directly with target Internet resources

Features:

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



NetConceal Anonymity Shield: Screenshot



Anonymous Guest

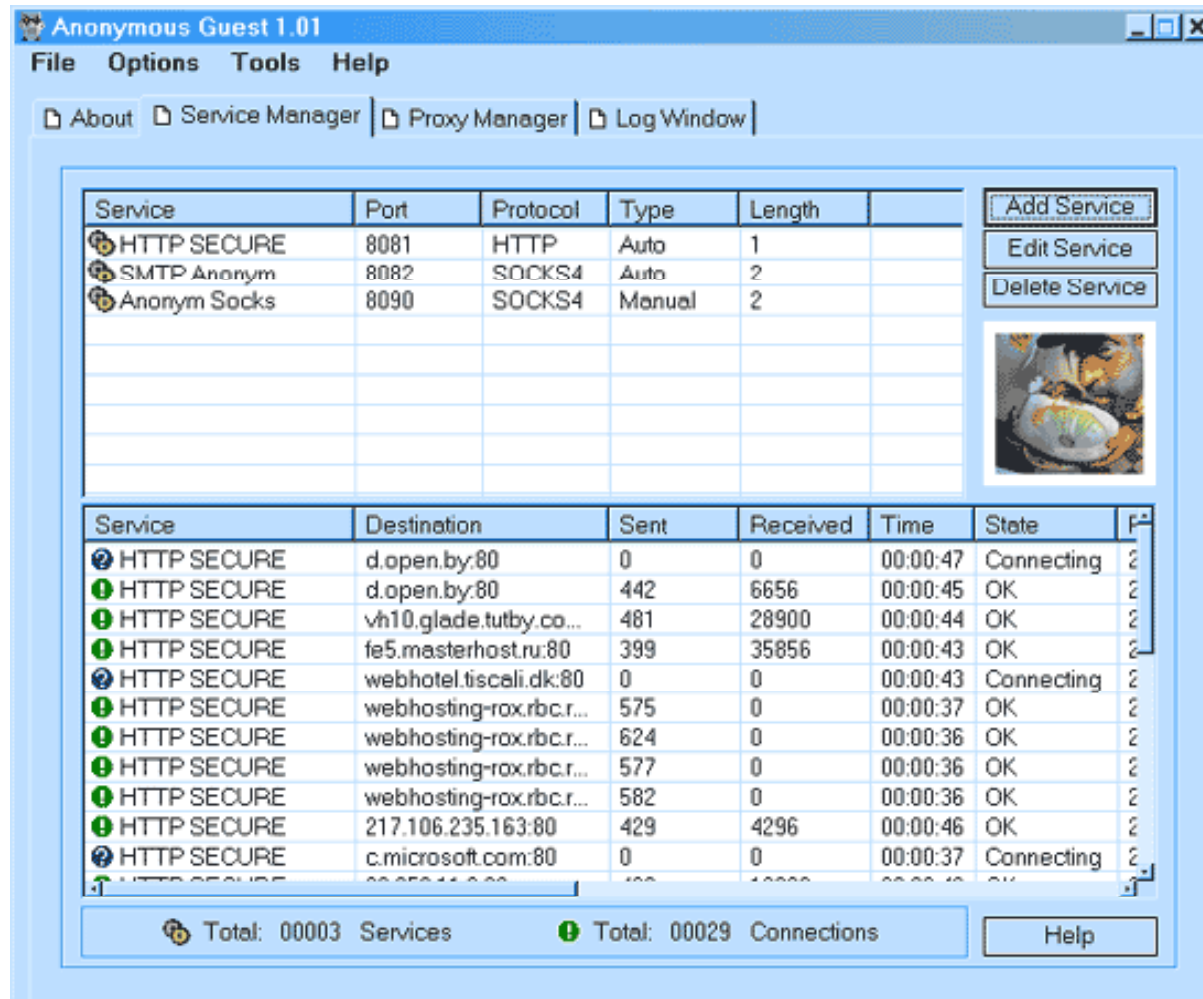
Anonymous Guest is the software that gives a full spectrum of opportunities to work with proxy-servers

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



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

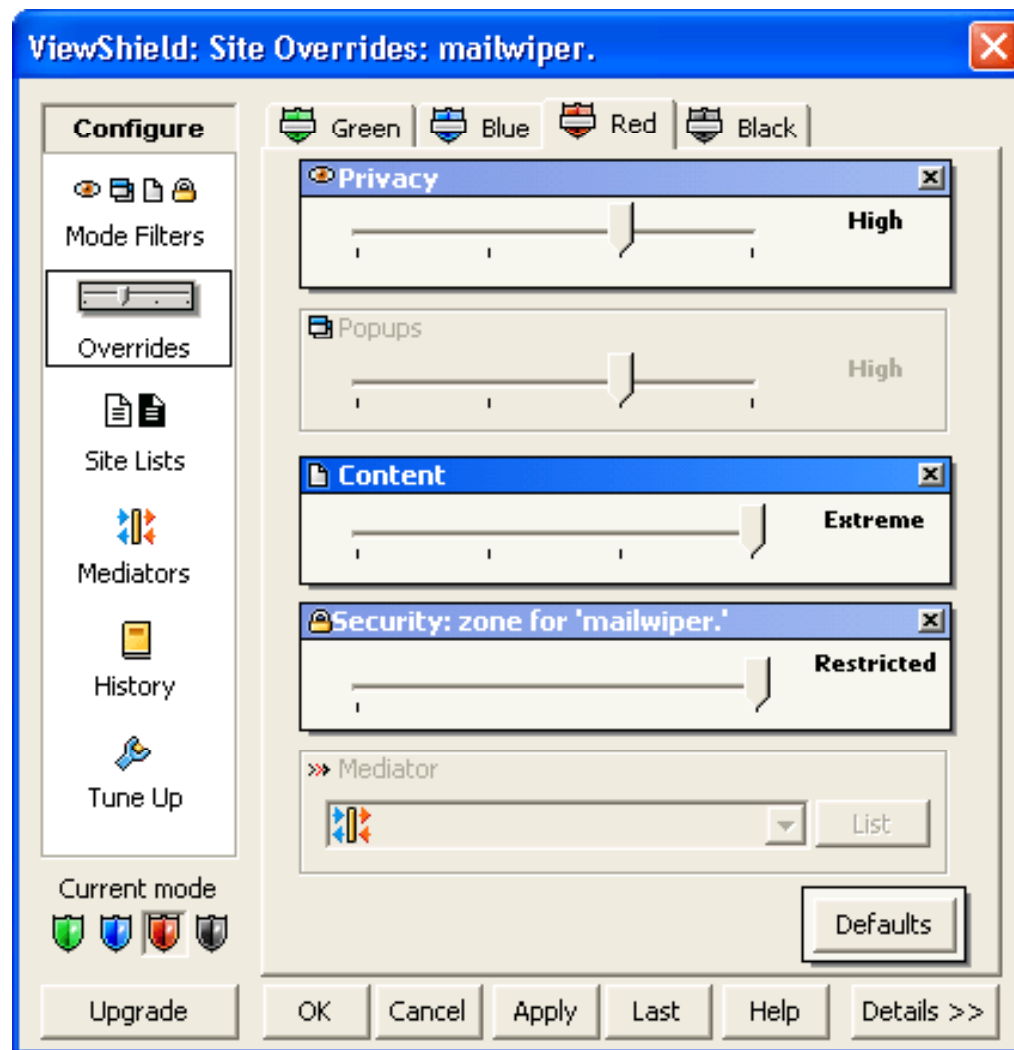
Privacy guard blocks cookies, "referrer", "from" and hide IP address

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 IP Hider web application interface. At the top left is the 'IP Hider' logo. On the right side of the top bar are 'Update now' and 'Check IP now' buttons. A left sidebar contains navigation buttons for 'status', 'anonymity', 'privacy', 'settings', and 'register'. The main content area is divided into sections: 'select a proxy' with 'New' and 'Tested' dropdown menus; 'select an action' with 'Disable Online Anonimity' and 'Disable Privacy' buttons; and a 'status' section showing 'Mode: TRIAL COPY', 'Status: Online Anonymity: Enabled', and 'Privacy: Enabled'. At the bottom right, it displays 'Real IP Address: 10.0.0.9' and 'Current IP Address in use: 139.19.142.5:3128'. The 'AllAnonymity' logo is at the bottom left.

Mask Surf Standard

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

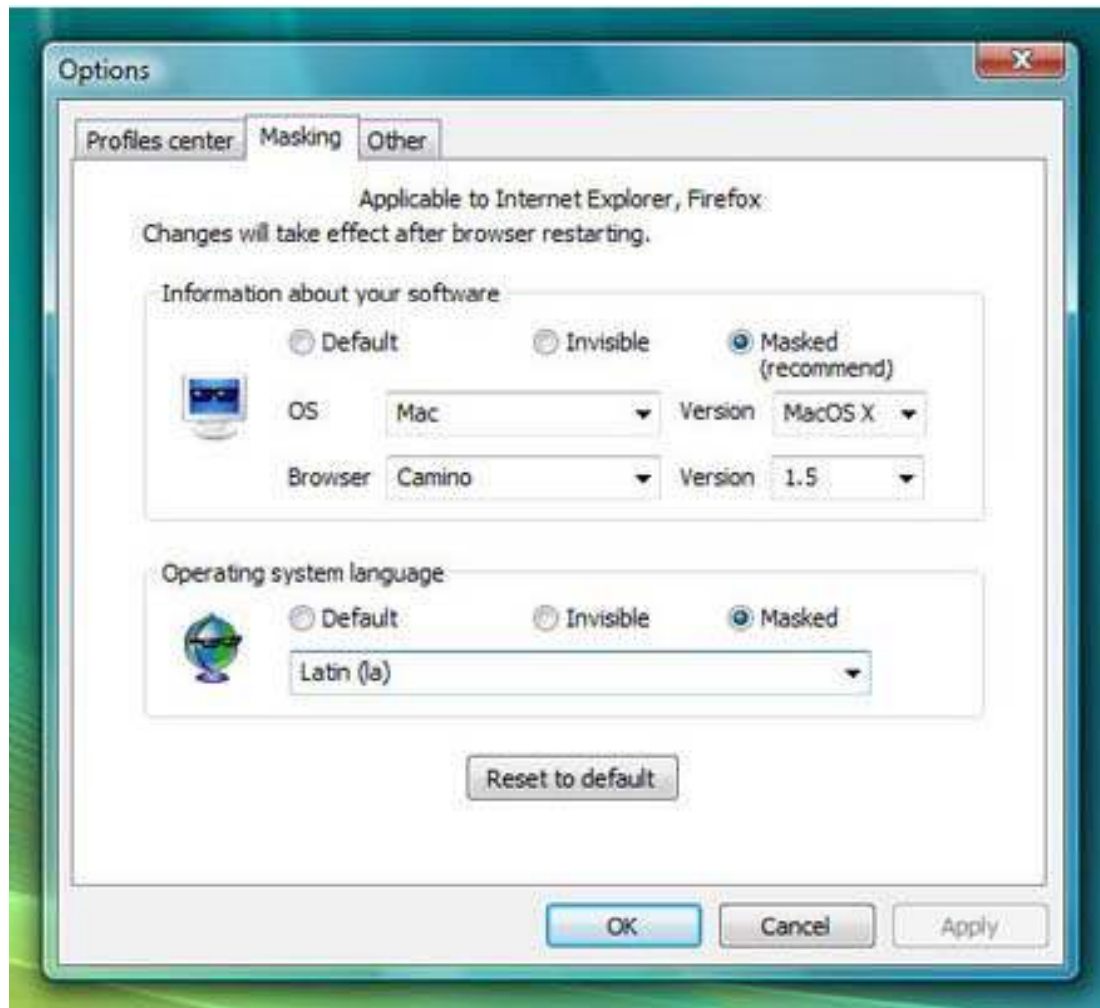
You can easily mask or hide the information related to your OS type, browser, system language, as well as the IP address

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



Mask Surf Standard: Screenshot



VIP Anonymity

VIP Anonymity prevents everyone from knowing your IP address

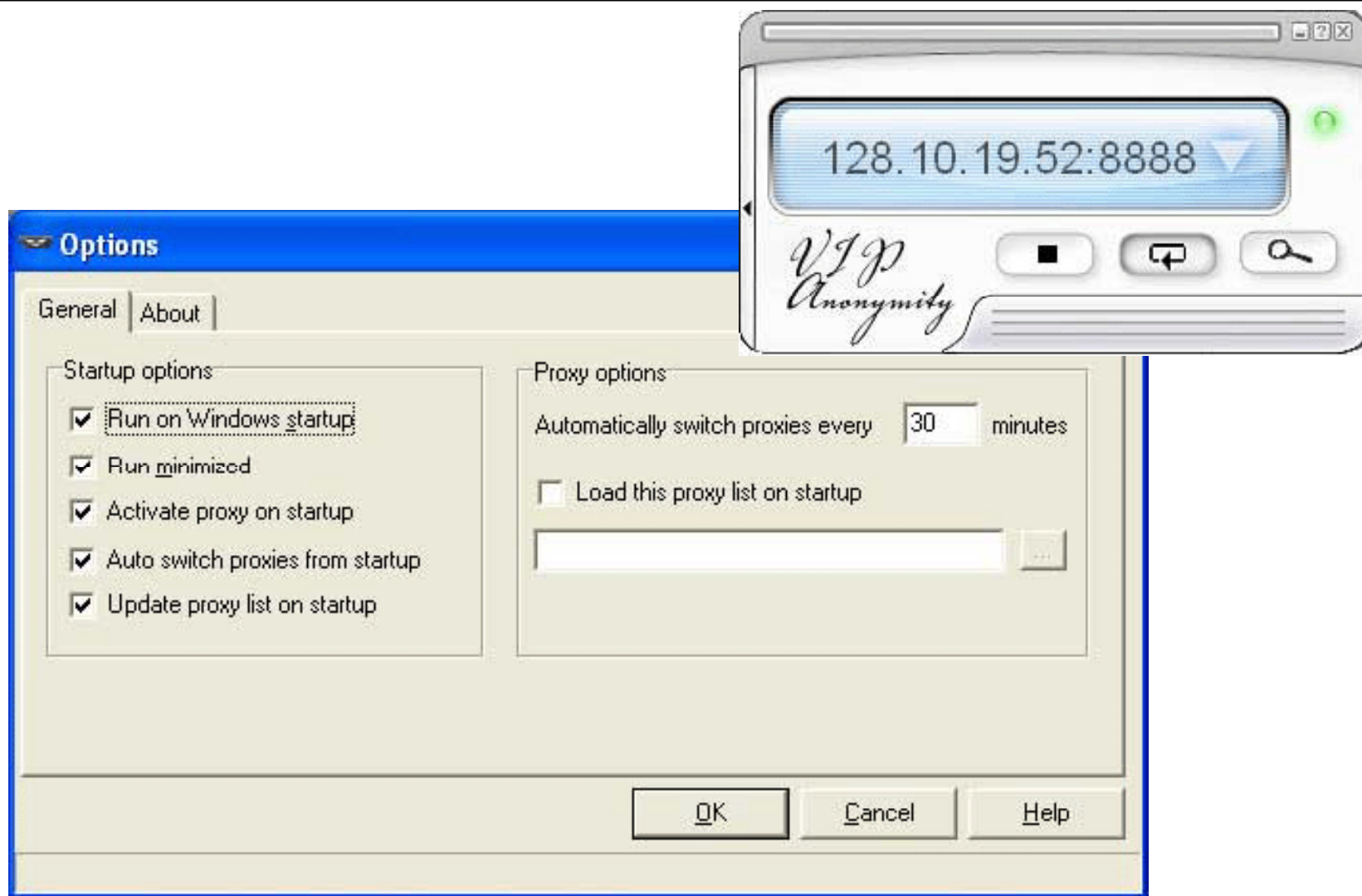
It redirects your traffic through anonymous proxy servers which do not transfer the information about your IP address

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



VIP Anonymity: Screenshot

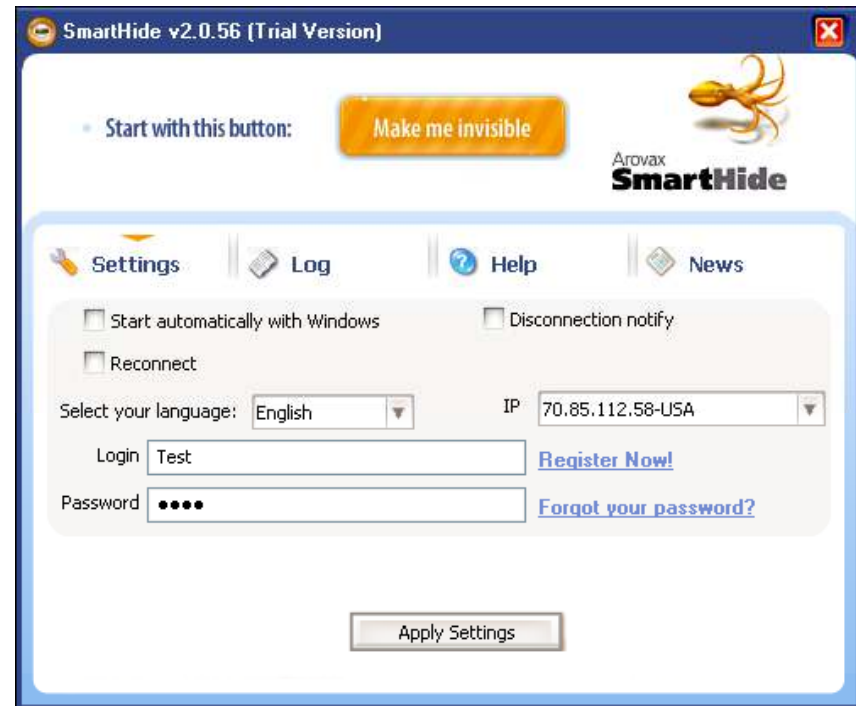


SmartHide

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

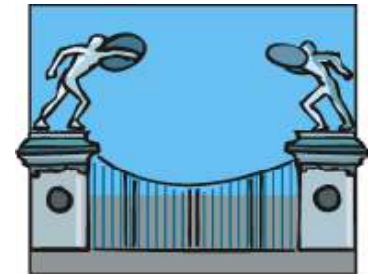


Anonymity Gateway

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

Anonymity GateWay

[Check IP now](#) [Update now](#)

[status](#)

[anonymity](#)

[privacy](#)

[settings](#)

[register](#)

Hide your IP and learn how to use the proxy.

select a proxy

New	Tested
130.104.72.200:3124->Belgium	128.232.103.203:3124->Kingdom

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 Anonymity Gateway.

select an action

Disable Online Anonimity

Enable Privacy

status

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

Privacy gateway Real IP Address: 10.0.0.9
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



Hide My IP: Screenshot



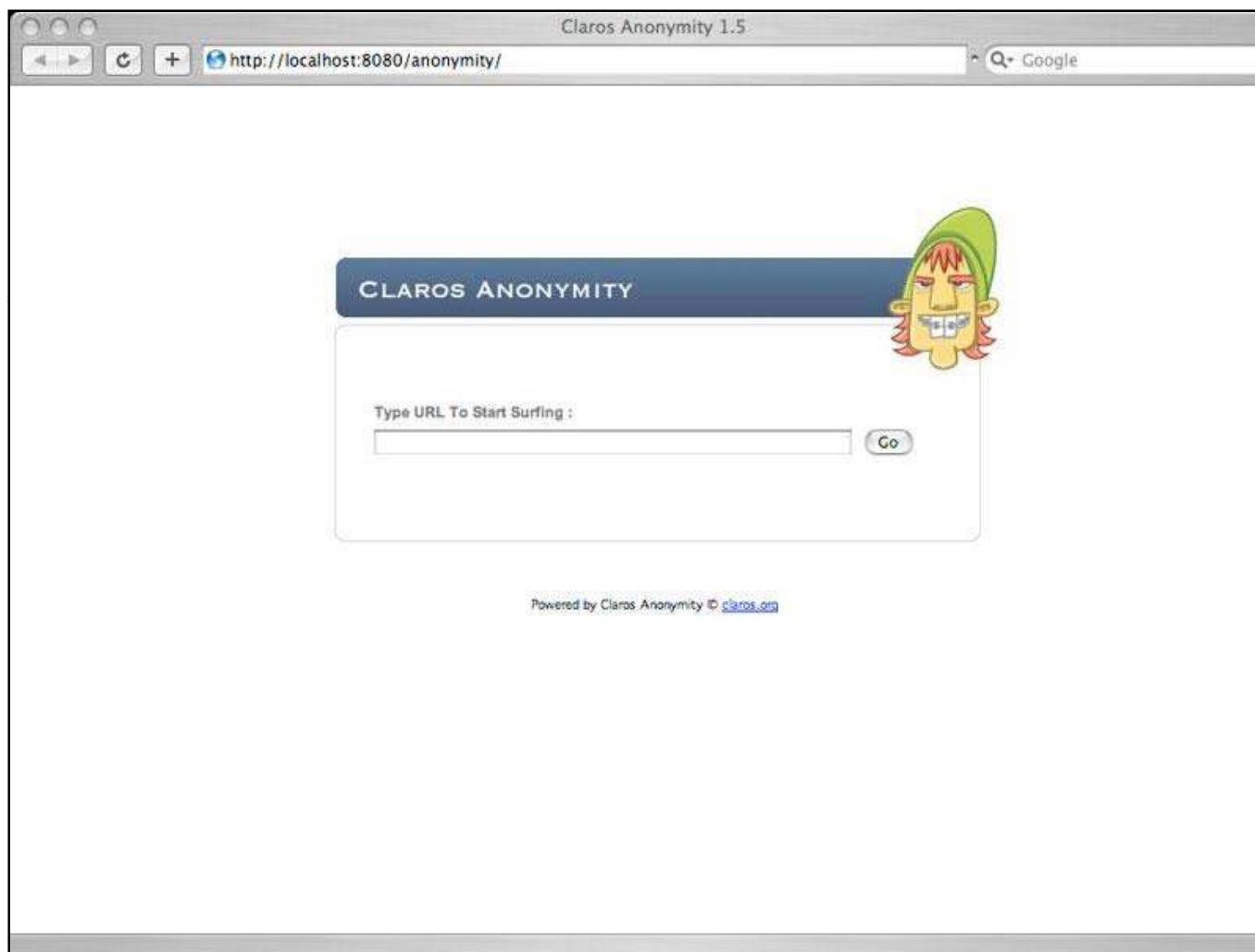
Claros Anonymity



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



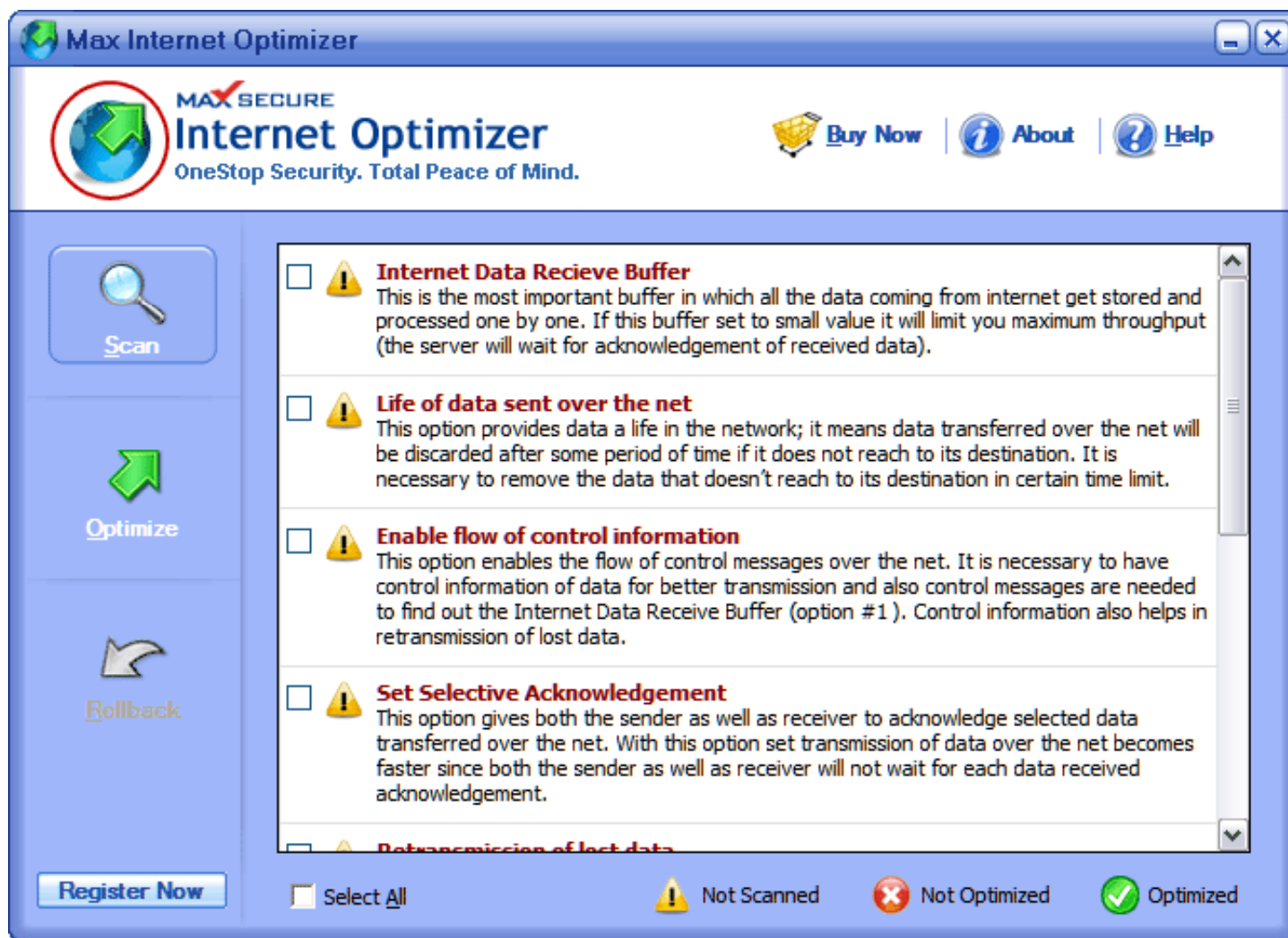
Max Internet Optimizer

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



Anonymous Browsing Toolbar

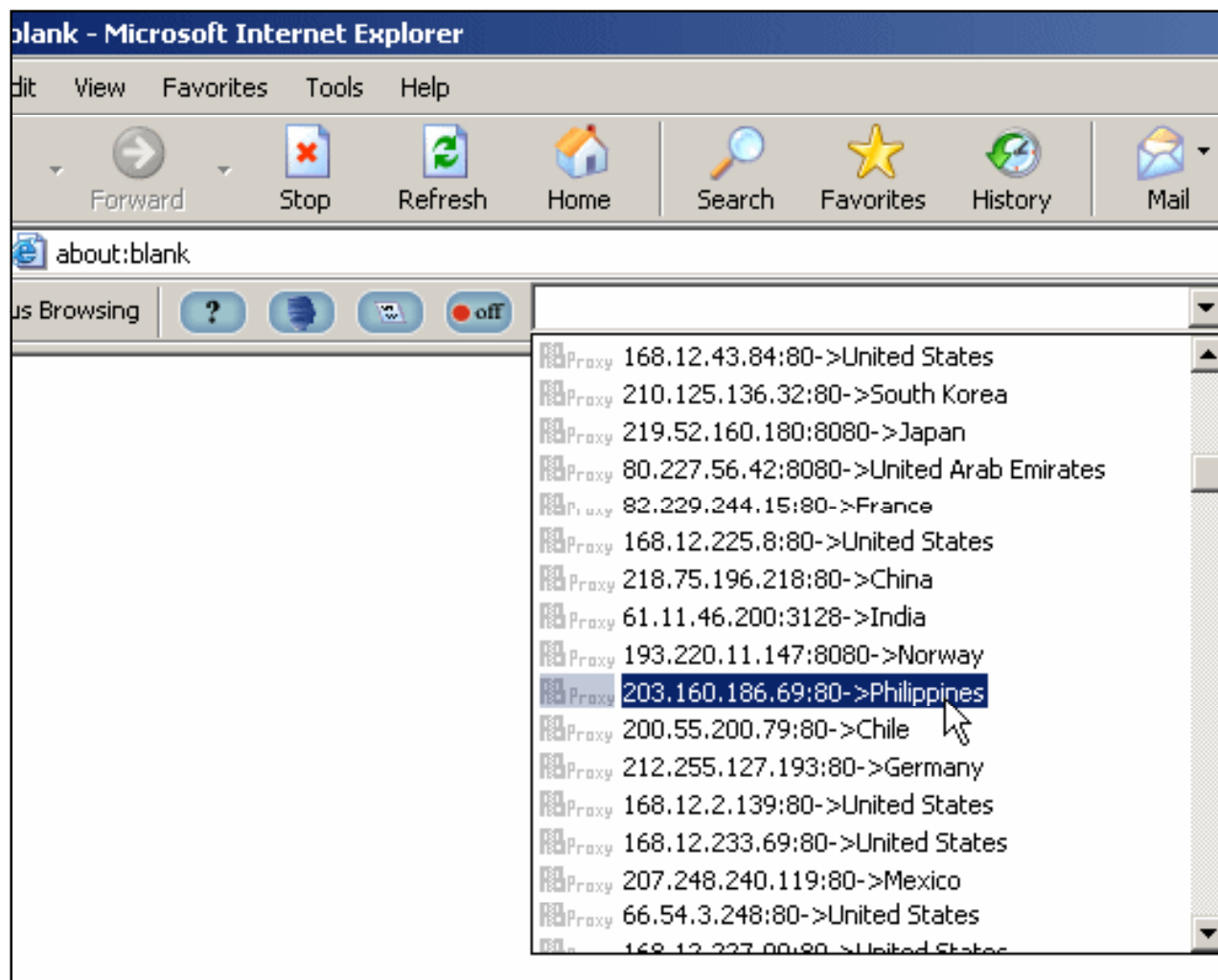
Anonymous Browsing Toolbar hides your IP address by routing your Internet traffic through remote servers

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

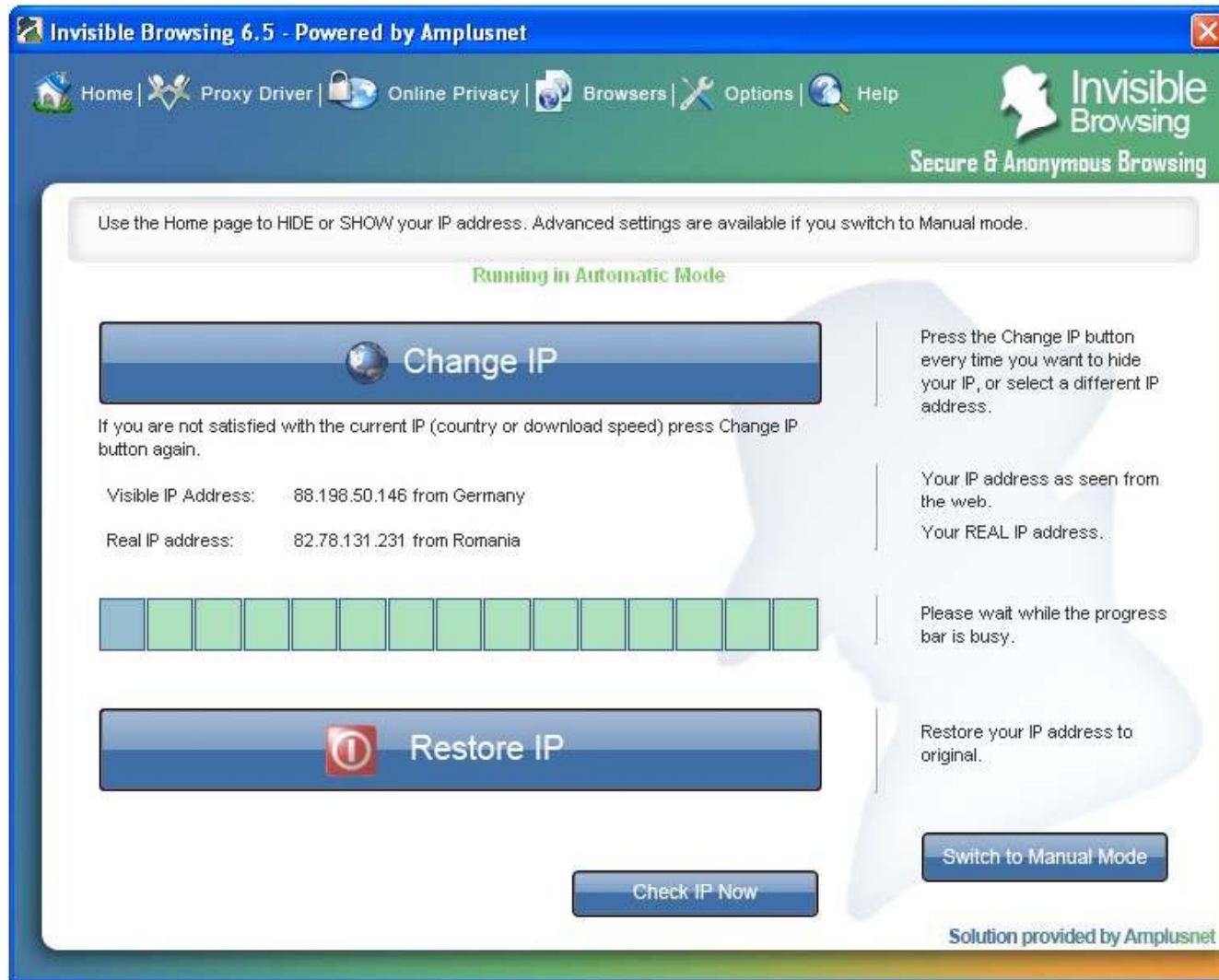
Invisible Browsing hides IP address and lets you surf anonymously and preventing your IP or other confidential information to be collected

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



Invisible Browsing: Screenshot 1



Invisible Browsing: Screenshot 2

Invisible Browsing 6.0 - Powered by Amplusnet

Home | Proxy Driver | Online Privacy | Browsers | Options | Help

Invisible Browsing
Secure & Anonymous Browsing

Use the Proxy Driver Page to adapt the proxy list provided by Invisible Browsing to your geographical location, internet connection type and preferences. Optional you can import your own proxy list.

General Settings

Use our proxylist
 Country: **United Kingdom**
 Create your own proxylist

Tests performed simultaneously: 5

Proxy Tester

Click the table headers to sort the list.

Proxy:Port	Details	Status	Progress	Available	Response Time	Download
137.226.138.156:3128	GERMANY	Tested	<div style="width:100%; background-color:blue;"></div>	Available	59.40 millisecs	160.52 KB/
139.153.253.178:3124	UNITED KINGD...	Tested	<div style="width:100%; background-color:blue;"></div>	Available	61.73 millisecs	149.29 KB/
129.12.3.75:3128	UNITED KINGD...	Tested	<div style="width:100%; background-color:blue;"></div>	Available	61.91 millisecs	142.99 KB/
85.214.25.228:80	GERMANY	Tested	<div style="width:100%; background-color:blue;"></div>	Available	62.62 millisecs	0.10 KB/s
128.232.103.203:3128	UNITED KINGD...	Tested	<div style="width:100%; background-color:blue;"></div>	Available	63.75 millisecs	148.40 KB/
141.76.45.18:3127	GERMANY	Tested	<div style="width:100%; background-color:blue;"></div>	Available	64.35 millisecs	130.30 KB/
193.174.155.26:3128	GERMANY	Tested	<div style="width:100%; background-color:blue;"></div>	Available	65.19 millisecs	129.33 KB/
139.153.253.179:3128	UNITED KINGD...	Tested	<div style="width:100%; background-color:blue;"></div>	Available	77.56 millisecs	145.64 KB/
139.153.253.179:3128	UNITED KINGD...	Tested	<div style="width:100%; background-color:blue;"></div>	Available	82.48 millisecs	147.10 KB/

Overall Progress:

Test Results

Select All Working Proxies
 Use the Save List button to store the results and use them on the Home page as the proxy source.

Select Top Proxies from the List

Solution provided by Amplusnet

Real Time Cleaner

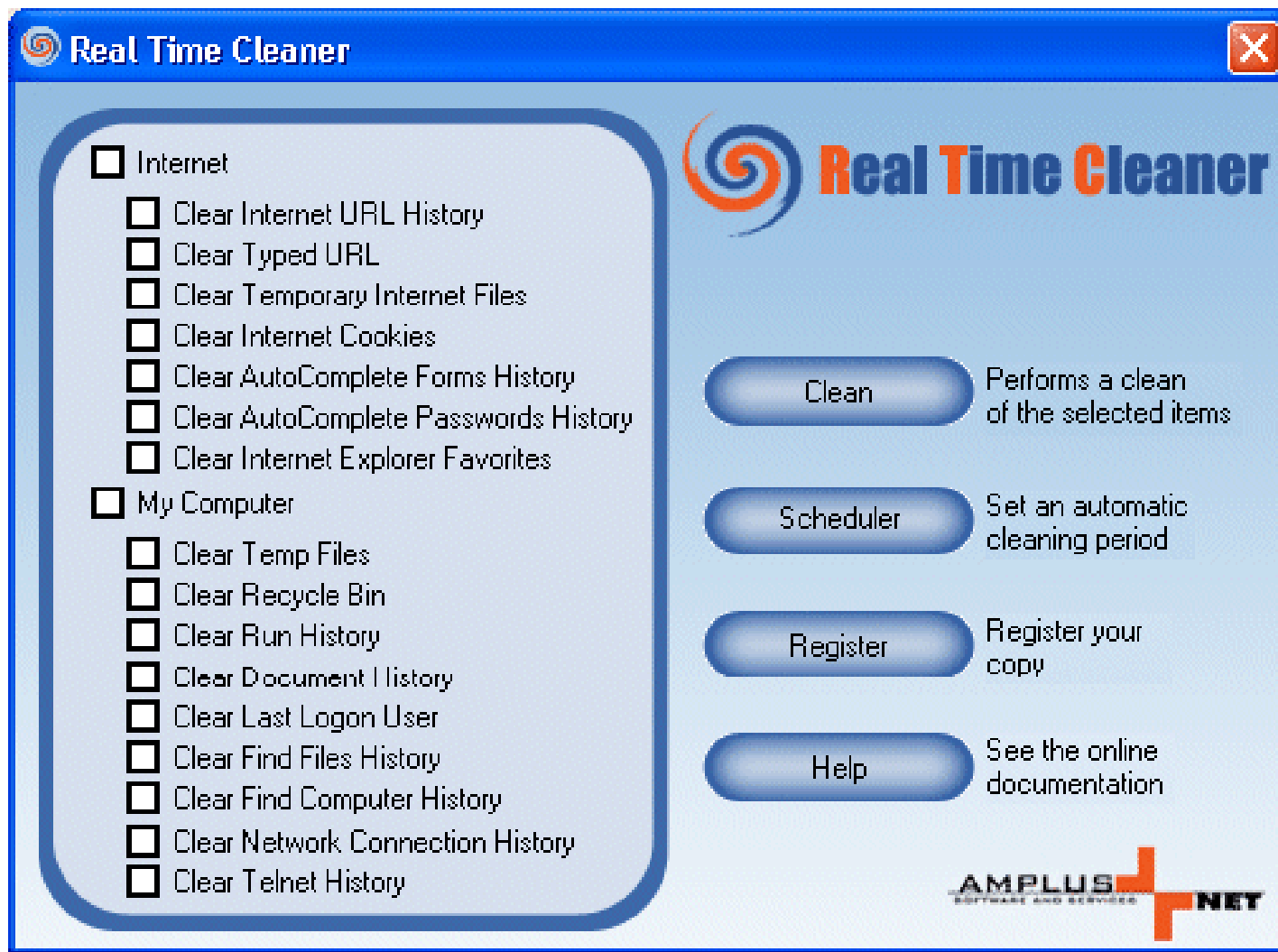
Real Time Cleaner maintains your online privacy by permanently erasing all your online tracks

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

PCMesh Anonymous Web Surfing 4.0.0.0

Start Verify Delete Im/Export etc.

Server	Anonymity	Ping	Checked
132.204.102.22:3124	High	38	5/19/2006
142.150.3.247:3128	High	40	5/19/2006
129.22.150.90:3127	High	59	5/19/2006
62.116.40.112:80	High	73	5/19/2006
66.196.246.187:8000	High	86	5/19/2006
198.163.152.230:3127	High	88	5/19/2006
198.163.152.230:3128	High	90	5/19/2006
220.77.202.243:8080	High	118	5/19/2006
59.30.182.9:8080	High	122	5/19/2006
130.88.203.26:3128	High	129	5/19/2006
84.56.1.245:7212	High	184	5/19/2006
192.33.210.17:3127	High	185	5/19/2006

Detecting your real IP
 Verifying proxies
 Filtering and sorting proxies
 Selecting a proxy
 Detecting your proxied IP
 Comparing IPs
 Compare Success!

Done

Done! Total proxies: 12 Proxy: 132.204.102.22:3124

Settings

- Delete low anonymity proxies
- Delete middle anonymity proxies
- Delete proxies with a ping great... 400
- Proxy Check
 - Number of proxy checks 2
 - Number of concurrent proxy verific... 50
 - Whois host whois.arin.net
- Proxy Change
 - Change proxy every [minutes] 5
 - Cycle between fastest [proxies] 6
 - Play sound on proxy change Default
- Grab Proxy
 - Minimum number of proxies 10
 - Maximum number of proxies 200
 - Web pages
- Browsers
 - Enable MS Internet Explorer
 - Location C:\Program Files\Internet...

Ok Cancel

Anonymous Friend

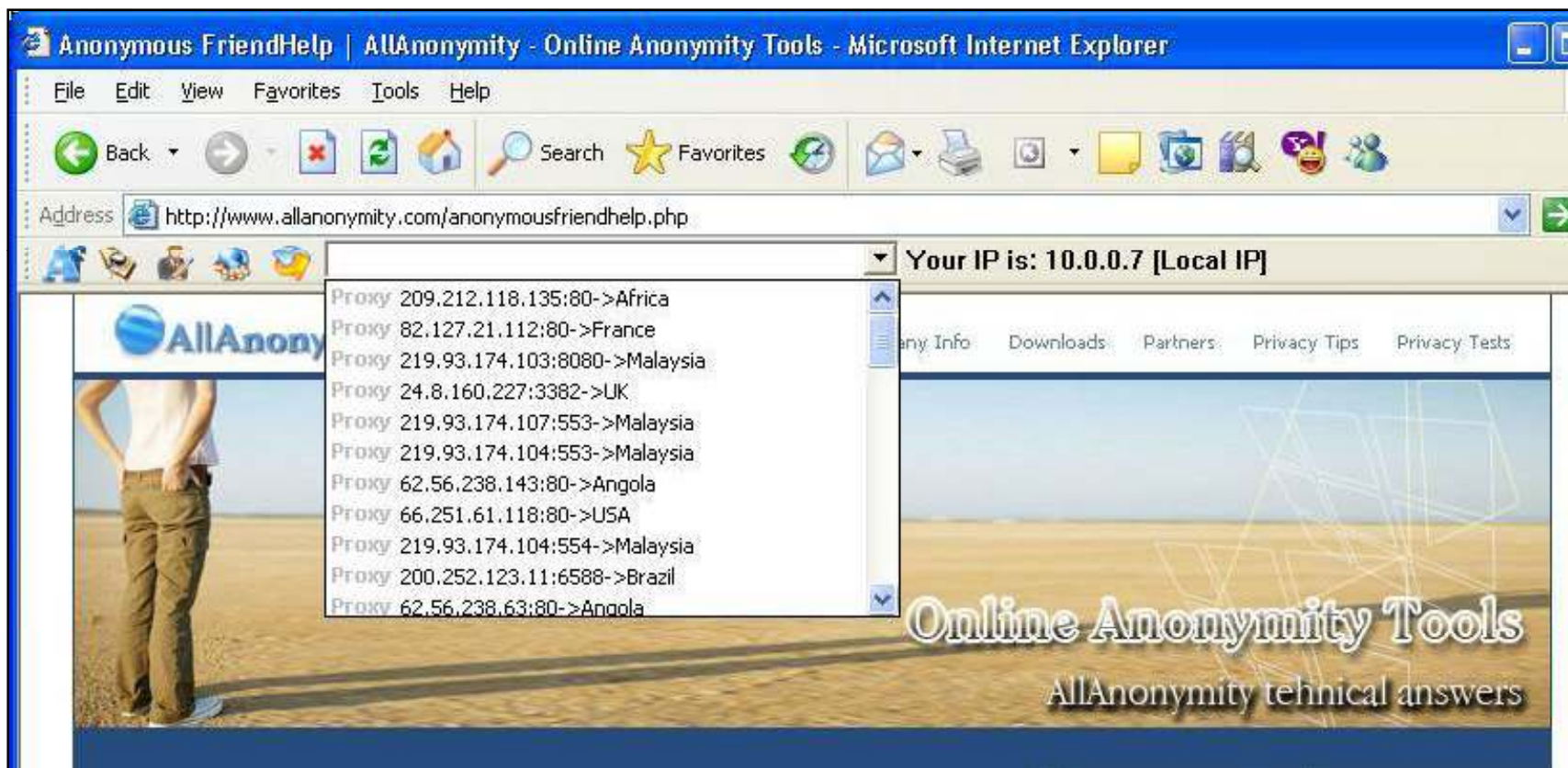


Anonymity Shield conceals your IP address by routing your traffic through foreign proxies

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

The screenshot shows the main window of the Easy-Hide-IP application. It is divided into several sections:

- Actions 1:** Contains three buttons: "Hide IP Now" (with a green checkmark icon), "Get A New IP" (with a green arrow icon), and "Restore Real IP" (with a yellow arrow icon).
- IP Addresses 2:** Contains two text input fields for IP addresses, each followed by a "Country Code" dropdown menu. Below these is a link: "Click Here - to find more information about the IP in use".
- Status 3:** Shows a yellow warning icon and the text: "Action Completed Successfully" and "LICENSED COPY FOR : support@easy-hide-ip.com".
- Options 4:** A vertical sidebar on the right with icons and labels: "Online Privacy" (star icon), "Register" (key icon), "Help" (question mark icon), "Minimize" (downward arrow icon), and "Exit" (power button icon).

The screenshot shows a dialog box titled "Protect Internet Explorer and Windows Desktop Privacy". It contains two sections of cleanup options:

- Protect Internet Explorer Privacy 1:** A list of four checked options: "Delete Internet Explorer Cache Cleanup", "Delete Internet Explorer Cookies Cleanup", "Delete Internet Explorer History Cleanup", and "Delete Internet Explorer Address Bar History Cleanup".
- Protect Windows Desktop Privacy 2:** A list of three options: "Delete Windows Desktop's Recent Documents Cleanup" (checked), "Delete Windows Desktop's Run History Cleanup" (checked), and "Delete Windows Desktop's Recycle Bin Cleanup" (unchecked).

At the bottom of the dialog, there are two buttons: "Clean" (with a green checkmark icon) and "Done" (with a yellow arrow icon). Below the buttons is a yellow warning icon and the text: "Please check all cleaning jobs that should be performed and press Clean button".



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 antispyspyware 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

Agnitum Outpost Firewall Pro - configuration1.cfg

File View Tools Options Help

My Internet

- My Internet
 - Network Activity
 - Open Ports
 - Allowed
 - Blocked
- Plug-Ins
 - Active Content
 - Ads
 - Attachments Filter
 - Attack Detection
 - Content
 - DNS Cache

Outpost Firewall Pro

Welcome to Outpost Firewall Pro!

Thanks for using Outpost Firewall Pro, the comprehensive solution for protecting you and your family online.

No lengthy configuration is needed. Outpost Firewall Pro starts protecting against all kinds of attacks as soon as it is installed.

Thanks for choosing Agnitum as your security provider!

FIREWALL

- General Settings
- Application Settings
- System Settings
- Test My PC Online
- Run Outpost Log Viewer
- Run Update
- Help

News

✦ **Agnitum Newsletter (February 4, 2004)**
Agnitum Partners with Novell for Network Security Solutions
Agnitum Unveils Unparalleled OEM Partnership Program

Registration status

Registered to: Andy
License type: Single user

Ready Rules Wizard

Firestarter

Firestarter is an 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

Firestarter brimstone.sby.abo.fi

Firewall Edit Events Policy Help

Preferences Lock Firewall Stop Firewall

Status Events Policy

Firewall

Status	Events
	Total Serious
Active	Inbound 17 7
	Outbound 9 0

Network

Device	Type	Received	Sent	Activity
eth0	Internet	0.7 MB	0.0 MB	2.2 KB/s
eth1	Local	0.0 MB	0.1 MB	0.0 KB/s
sit0	IPv6 Tunnel	0.0 MB	0.0 MB	0.0 KB/s

Active connections

Source	Destination	Port	Service	Program
130.232.120.53	66.102.9.99	80	HTTP	firefox-bin
130.232.120.53	204.225.124.69	6667	Ircd	xchat
130.232.120.53	216.239.51.104	80	HTTP	firefox-bin

Firestarter brimstone.sby.abo.fi

Firewall Edit Events Policy Help

Save List Clear Reload

Status Events Policy

Blocked Connections

Time	Direction	Port	Source	Protocol	Service
Nov 20 01:48:35	Inbound	113	130.232.213.6	TCP	Unknown
Nov 20 01:48:49	Inbound	22	130.232.213.6	TCP	SSH
Nov 20 01:49:01	Inbound	48393	130.232.213.6	TCP	Unknown
Nov 20 01:49:13	Inbound	21	130.232.213.6	TCP	FTP

Sunbelt Personal Firewall

This two way firewall keeps hackers out and private info inside

Blocks all externally originated IP traffic

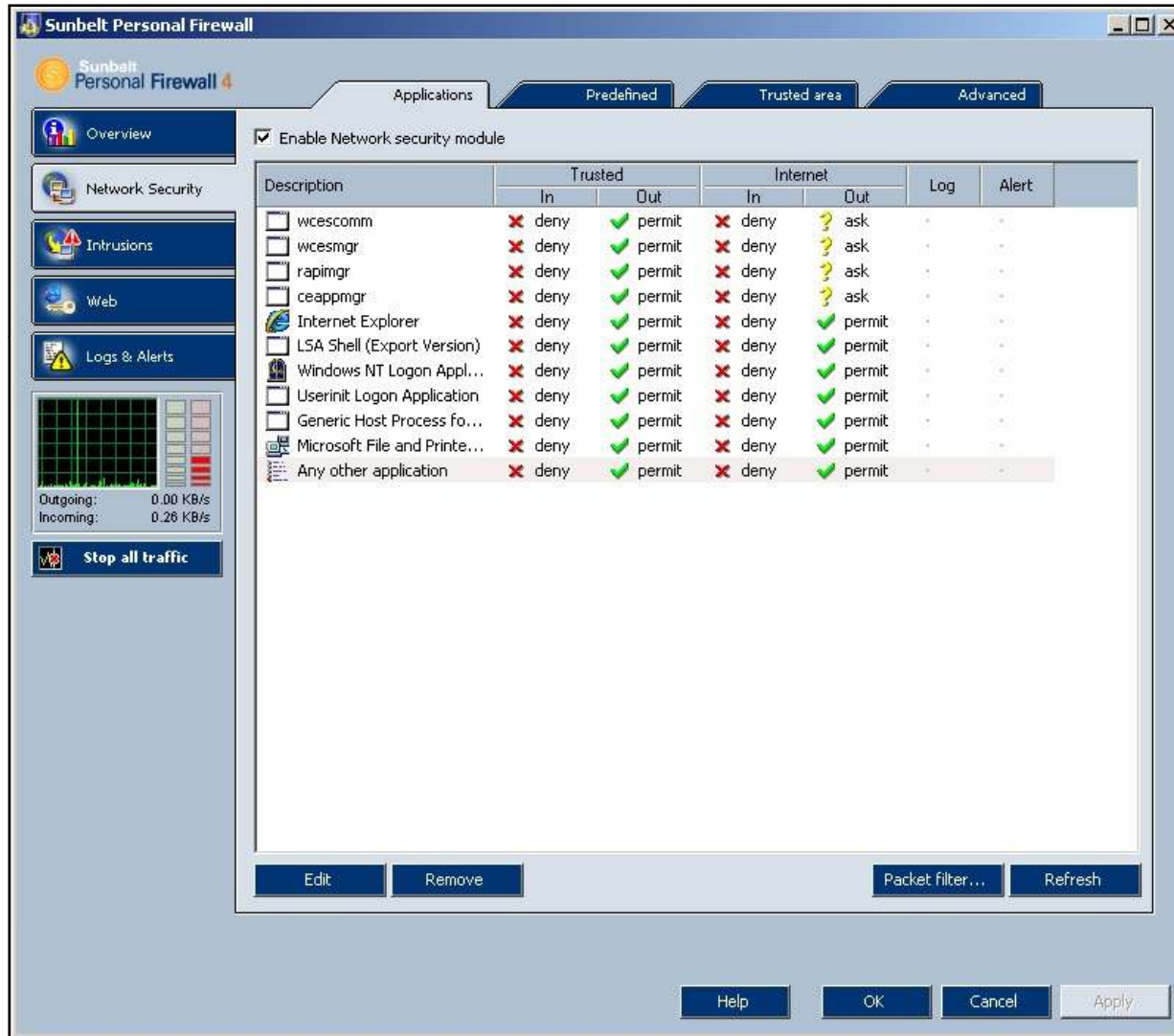
Renders the desktop invisible to potential intruders

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



Sunbelt Personal Firewall: Screenshot



NetDefender is a Firewall with source code

Netdefender works on windows 2000 and above version of windows

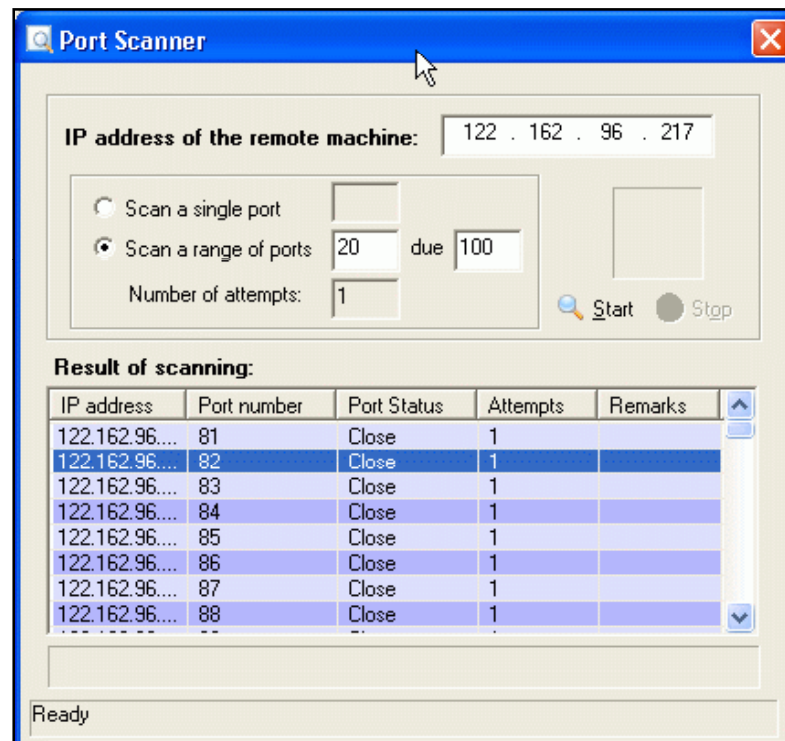
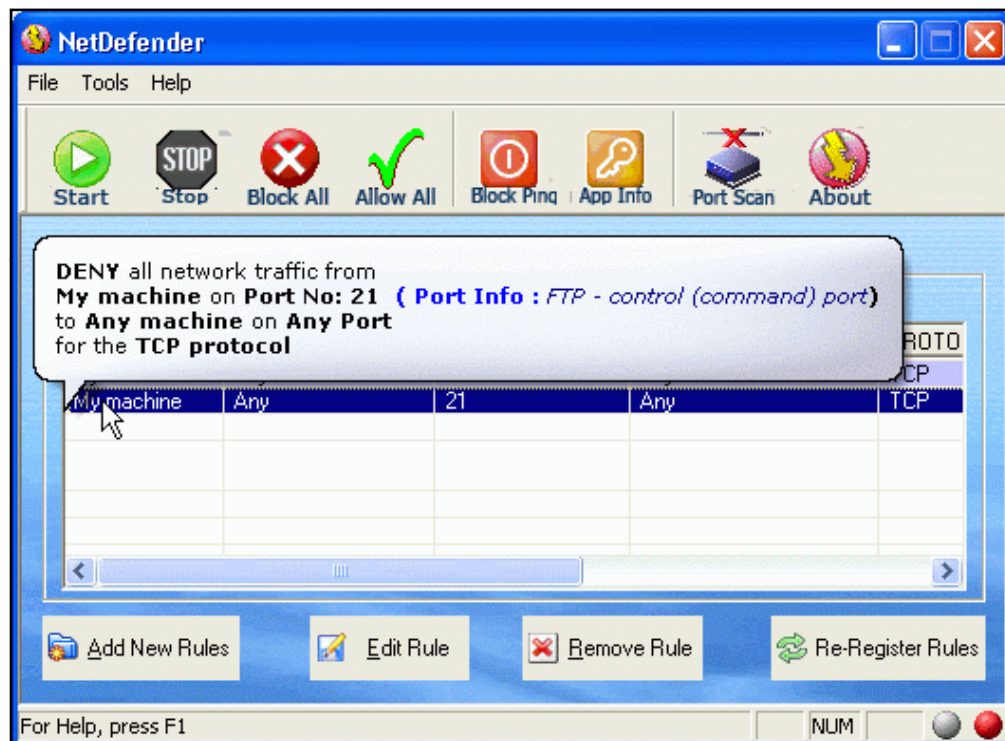
In windows XP with service pack 2, Default firewall is always running so it is necessary to stop before running the Netdefender

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

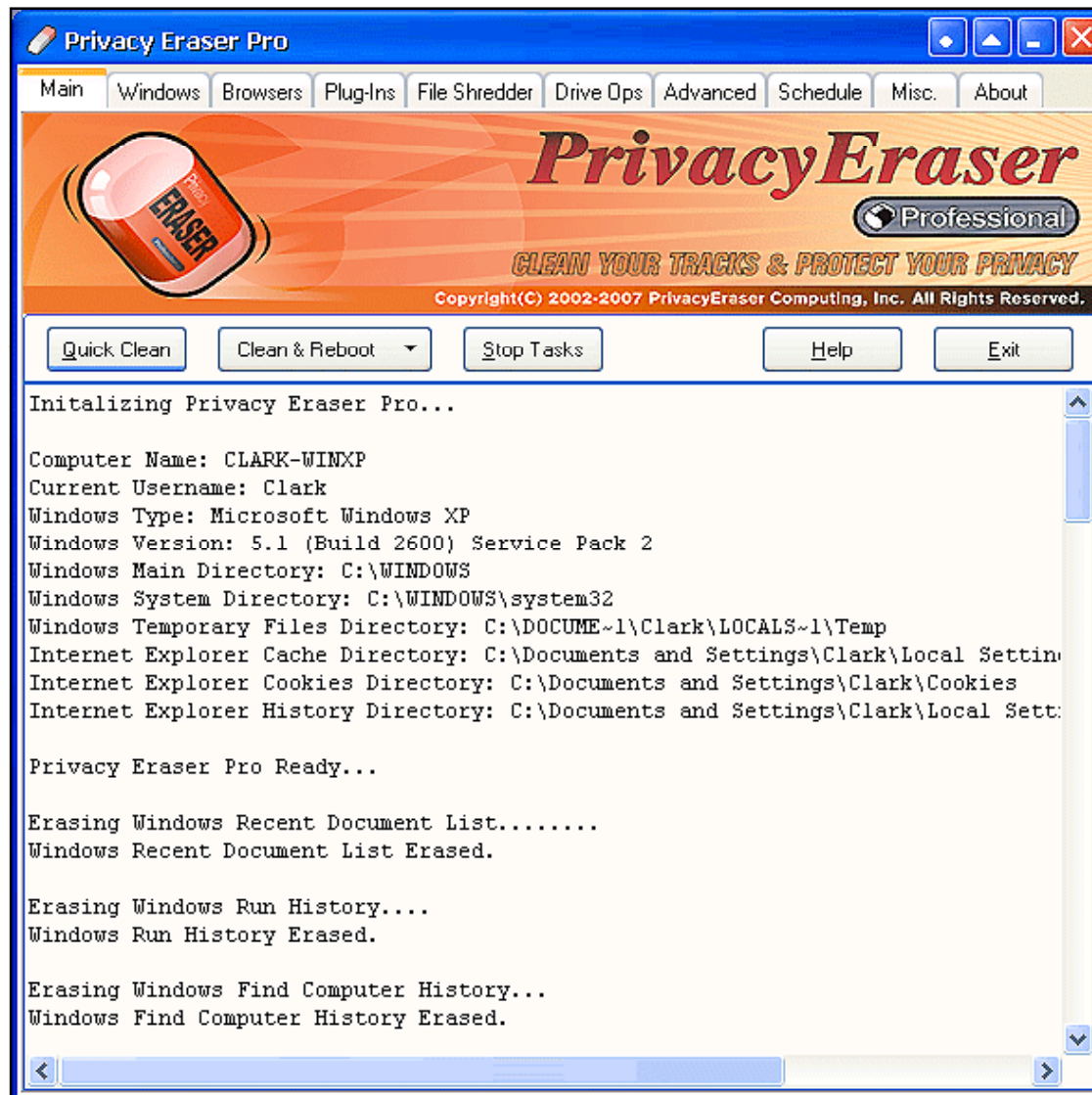
It supports all web browsers such as Internet Explorer, Mozilla, Firefox, AOL, Netscape, Opera, and MSN Explorer

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

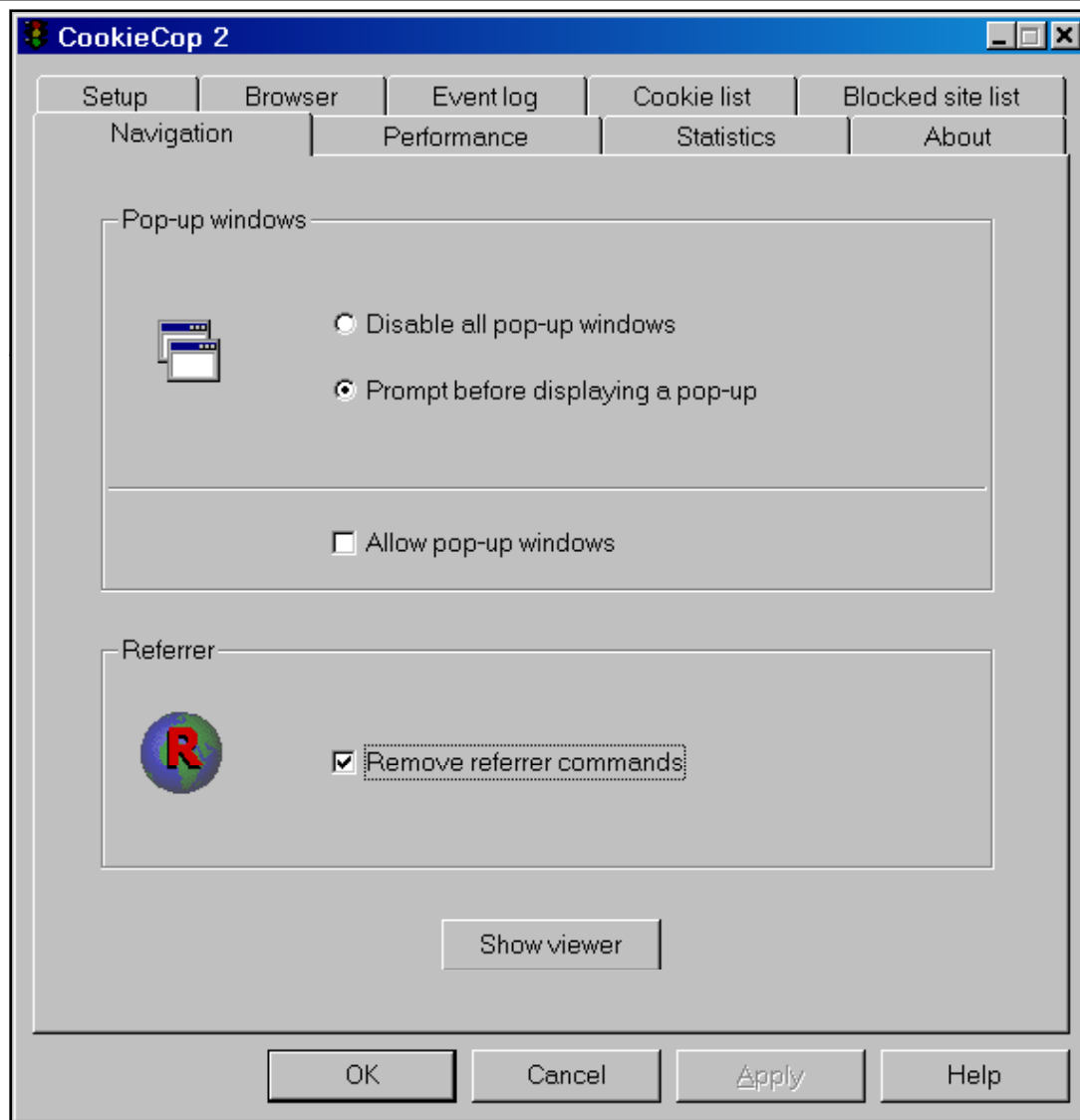
CookieCop is implemented as a proxy server; it acts as an intermediary between browser and the Internet, managing the cookies

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

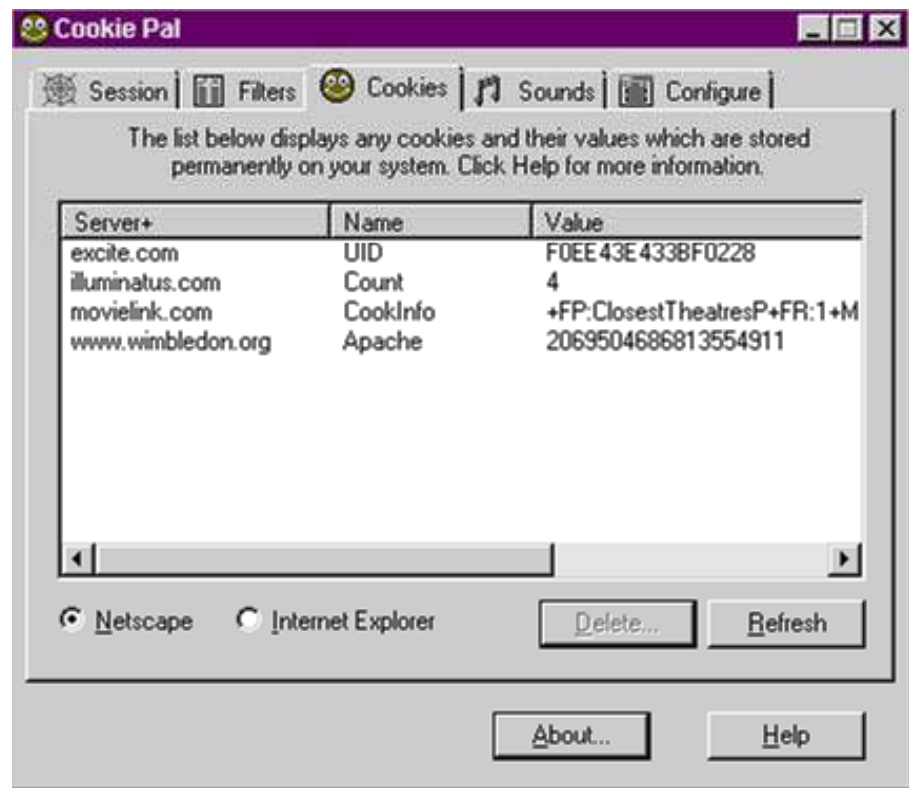
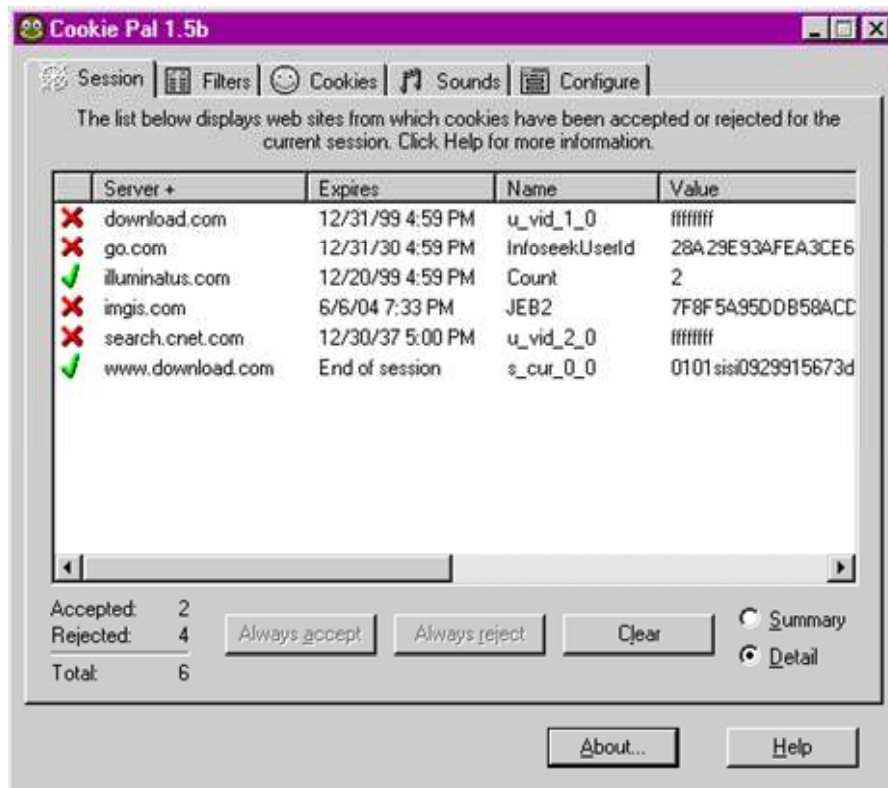
Automatically and transparently accepts or rejects cookies from all or specified servers without user interaction

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

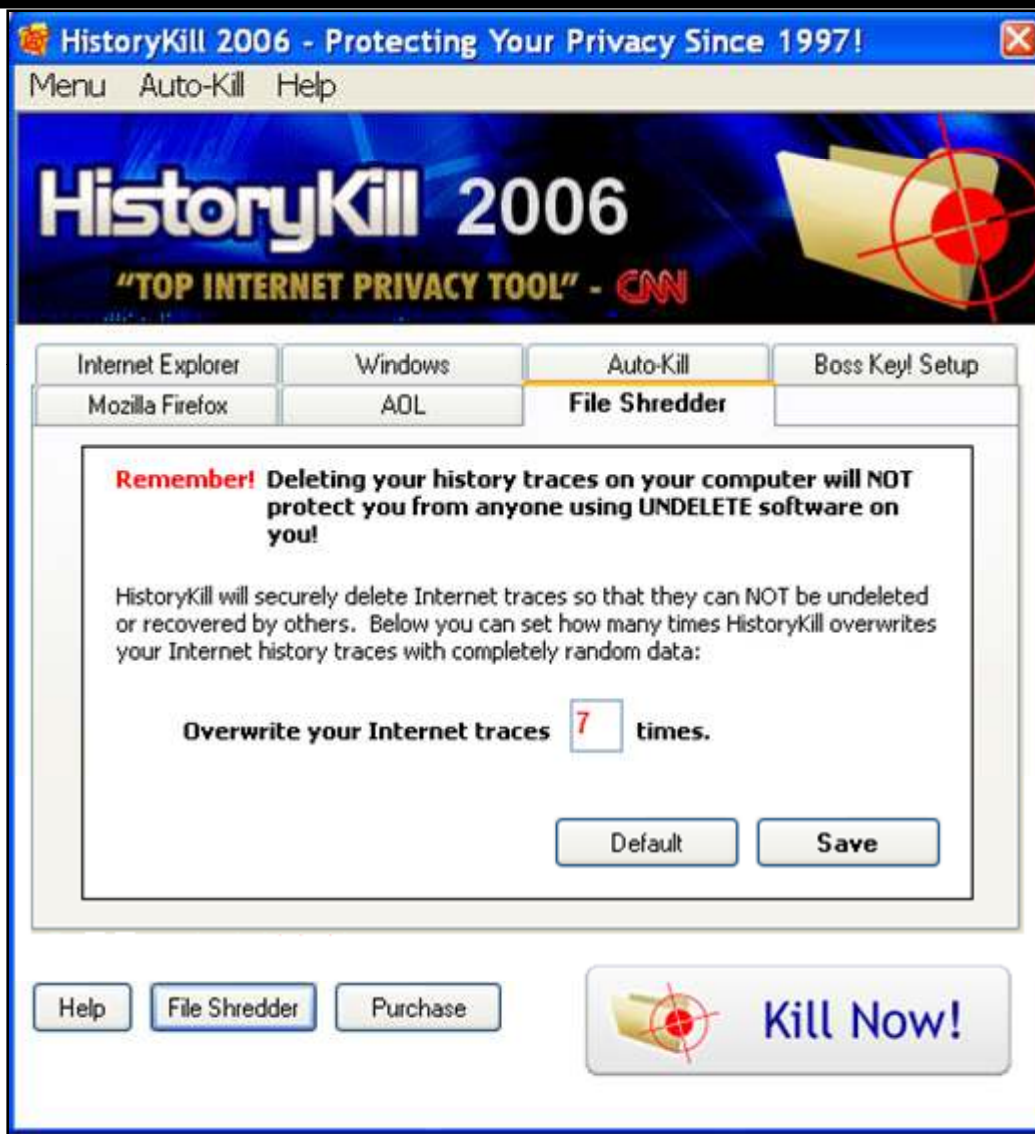
It erases URL history list from address bar, URL history files, temporary Internet files, AutoComplete form fields & passwords, 'index.dat' files, and Cookies



Historykill: Screenshot 1



Historykill: Screenshot 2



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

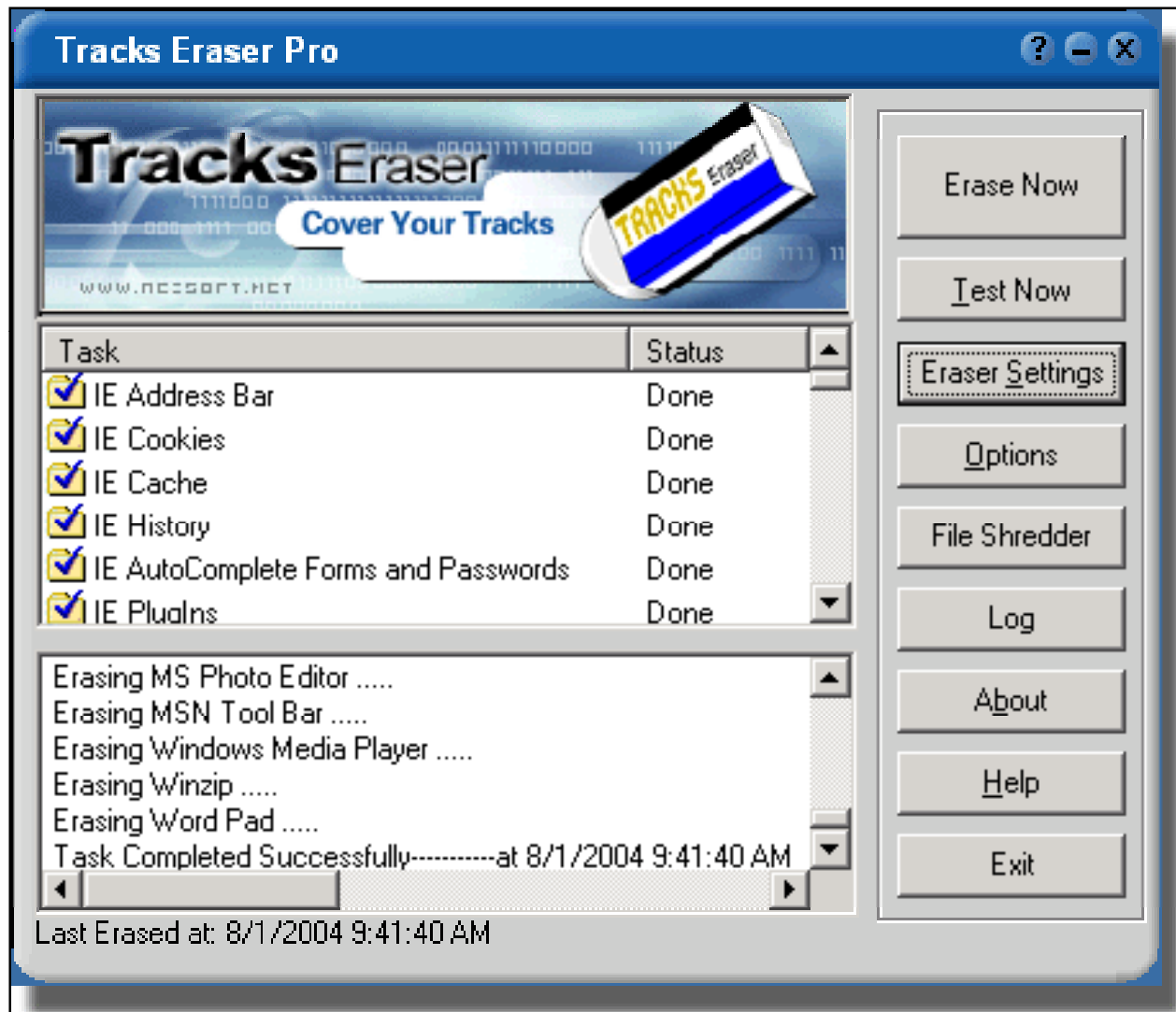
It overwrites the files with blank character, gives the confidence that once erased by Tracks Eraser Pro, the files will be gone and no one can recover or undelete them

Custom Erase Item can choose to erase own files and registry

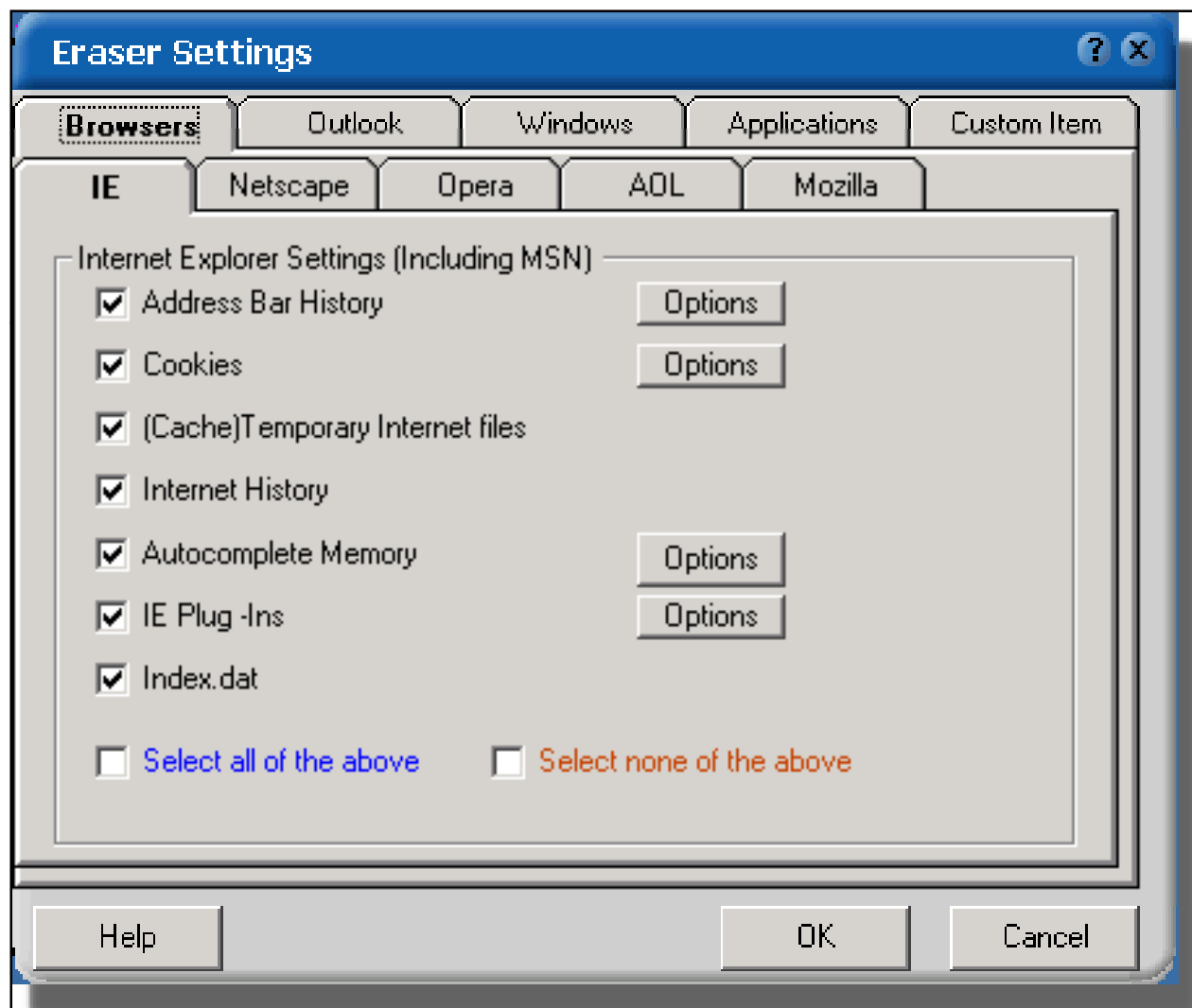
It prevents the websites from modifying homepage

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

Tracks Eraser: Screenshot 1



Tracks Eraser: Screenshot 2





Best Practices

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



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.”