

## Cyber Security Education Consortium (CSEC) Nashville, TN: May 25, 2010

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# FREE TOOLS FOR SYSTEM AND SECURITY ADMINISTRATORS

\* Warning only use any of these tools with permission of your network administrator and not for malicious use

## COMMAND LINE TOOLS

Selected Tools

#### **WPSweep**

WPSweep is a simple ping sweeper, that is, it pings a range of IP addresses and lists the ones that reply.

D:\>wpsweep 192.168.50.2 192.168.50.254

Got ping reply from the following hosts:

- 192.168.50.2
- 192.168.50.101
- 192.168.50.102
- 192.168.50.142
- 192.168.50.148
- 192.168.50.114
- 192.168.50.117
- 192.168.50.141
- 192.168.50.137
- 192.168.50.157

#### **PStoreView**

PStoreView lists the contents of the Protected Storage. It usually contains things like Internet Explorer username and password autocomplete, and Outlook account names and passwords.

D:\>pstoreview

The contents of the Protected Storage:

\*\*\* InfoDelivery

\* Subscriptions

\*\*\* IdentityMgr

\* Identities

**IdentitiesPass** 

#### **PromiscDetect**

PromiscDetect checks locally if your network adapter(s) is running in promiscuous mode, which may be a sign that you have a sniffer running on your computer. The first tool able to do this.

D:\>promiscdetect

#### Adapter name:

- Broadcom NetXtreme Gigabit Ethernet

#### Active filter for the adapter:

- Directed (capture packets directed to this computer)
- Multicast (capture multicast packets for groups the computer is a member of)
- Broadcast (capture broadcast packets)

#### **PMDump**

PMDump is a tool that lets you dump the memory contents of a process to a file without stopping the process.

D:\>PMDUMP -list

0 - System idle process

4 - System

776 - smss.exe

824 - csrss.exe

856 - winlogon.exe

900 - services.exe

912 - Isass.exe

1092 - ati2evxx.exe

1112 - svchost.exe

#### **PEriscope**

PEriscope is a PE file inspection tool. It works on ordinary 32-bit files as well as 64-bit and .NET ones.

D:\>periscope snitch.exe

Valid PE file

File header information:

- Machine type: IA32 (x86)
- Executable image (not Object file or Library)
- Do not trim the working set aggressively
- Do not run from swap if on a removable medium
- Do not run from swap if on a network drive
- Can run on a multiprocessor system
- Contains no base relocations
- Cannot handle addresses beyond 2 Gb
- This file is not a DLL
- Link/compile date and time (UTC): Tue Dec 11 19:34:54 2

#### **MACMatch**

MACMatch lets you search for files by their last write, last access or creation time without changing any of these times.

D:\>macmatch . -a 2010-05-19:00.00 2010-5-19:12.00 .\pstools\psservice.exe

- M: 2008-1-9:16.36

- A: 2010-5-19:8.49

- C: 2010-5-19:8.49

.\pstools\psshutdown.exe

- M: 2006-12-4:17.53

- A: 2010-5-19:8.49

- C: 2010-5-19:8.49

## **IPEye**

IPEye is a TCP port scanner that can do SYN, FIN, Null and Xmas scans.

D:\>ipeye 192.168.50.2 -syn -p 20 100

1-19 [not scanned]

20-100 [drop]

101-65535 [not scanned]

## **EtherChange**

D:\>etherchange

- 0. Exit
- 1. 3Com EtherLink XL 10/100 PCI For Complete PC Management NIC (3C905C-TX)
- 2. 3Com EtherLink XL 10/100 PCI For Complete PC Management NIC (3C905C-TX)
- 3. Broadcom NetXtreme Gigabit Ethernet
- 4. Broadcom NetXtreme 57xx Gigabit Controller Pick a network adapter: 1

#### EtherChange, continued

- 0. Exit
- 1. Specify a new Ethernet address
- 2. Go back to the built-in Ethernet address of the network adapter

Pick an action: 1

Specify a new Ethernet address (in hex without separators): 123456789001

The new Ethernet address has been set.

You need to disable and re-enable the network adapter (or reboot) to activate

this new setting!

#### **EFSView**

EFSView lists the users who have ordinary decryption keys or recovery keys for an EFS encrypted file.

D:\>efsview .\abc.exe

Users with decryption keys:

- HACKER08\ Administrator

Users with recovery keys:

#### **DumpUsers**

DumpUsers is able to dump account names and information even though RestrictAnonymous has been set to 1.

D:\>dumpusers -target hacker08 -type notdc -start 1 -stop 2000 -mode verbose

#### DumpUsers, continued

Account name: HACKER08\Administrator

- Password age: 21 days
- Privilege level: Administrator
- Home directory:
- Home directory mapped as:
- Comment: Built-in account for administering the computer/domain
- Account is: Enabled
- User can change password: Yes
- Account is locked out: No
- Password never expires: Yes
- The account is: Normal user
- Logon script path:
- Full name:
- User comment:

#### DumpUsers, continued 2

- Can log in from workstations: All
- Last logon to this DC / computer: Wed May 19 08:46:49 2010
- Last logon to this DC / computer: None
- Account expires: Never
- Max disk space: Unlimited
- Failed logins in a row to this DC / computer: 0
- Path to user profile:
- Password has expired: No

## ClearLogs

ClearLogs clears the event log (Security, System or Application) that you specify. You run it from the Command Prompt, and it can also clear logs on a remote computer.

D:\>clearlogs -sec

Success: The log has been cleared

#### LIST ALTERNATE DATA STREAMS

D:\>lads

LADS - Freeware version 4.10 This program lists files with alternate data streams (ADS) Use LADS on your own risk!

Scanning directory D:\

size ADS in file

0 bytes in 0 ADS listed

#### **GPList**

GPList lists information about the applied Group Policies.

D:\>gplist

Listing the applied Group Policies...

\* Group Policy Extension: Wireless

\* Policy Type: Computer

#### **GPList**, continued

- No Policy Applied
  - \* Policy Type: User
    - No Policy Applied
- \* Group Policy Extension: Folder Redirection
  - \* Policy Type: Computer
    - No Policy Applied
  - \* Policy Type: User
    - No Policy Applied

#### **LNS - List NTFS Streams**

LNS is a tool that searches for NTFS streams (aka alternate data streams or multiple data streams).

D:\FreeTools\PINK03\Downloads>lns.

#### Winfo

Uses null sessions to remotely try to retrieve lists of and information about user accounts, workstation/interdomain/server trust accounts, shares (also hidden), sessions, logged in users, and password/lockout policy, from Windows NT/2000/XP. It also identifies the built-in Administrator and Guest accounts, even if their names have been changed.

D:\>winfo 192.168.50.100 -v

#### SYSTEM INFORMATION:

Warning: Unable to retrieve system information.

Reason: Unknown.

Uses null sessions to remotely try to retrieve lists of and information about user accounts, workstation/interdomain/server trust accounts, shares (also hidden), sessions, logged in users, and password/lockout policy, from Windows NT/2000/XP. It also identifies the built-in Administrator and Guest accounts, even if their names have been changed.

D:\>winfo 192.168.50.100 -v

#### SYSTEM INFORMATION:

Warning: Unable to retrieve system information.

Reason: Unknown.

#### Filestat

```
C:\Documents and Settings\MC131\Desktop>FileStat.exe FileStat.exe
Dumping FileStat.exe...
SD is valid.
SD is 164 bytes long.
SD revision is 1 == SECURITY_DESCRIPTOR_REVISION1
SD's Owner is Not NULL
SD's Owner-Defaulted flag is FALSE
 SID = PINK08/MC131 S-1-5-21--987176174-1510140708-1200401492-1019
SD's Group-Defaulted flag is FALSE
 SID = PINK08/None S-1-5-21--987176174-1510140708-1200401492-513
SD's DACL is Present
SD's DACL-Defaulted flag is FALSE
  ACL has 3 ACE(s), 88 bytes used, 0 bytes free
  ACL revision is 2 == ACL_REVISION2
```

#### Filestat, continued

```
SID = PINK08/MC131 S-1-5-21--
987176174-1510140708-1200401492-1019
  ACE 0 is an
ACCESS ALLOWED ACE TYPE
  ACE 0 \text{ size} = 36
  ACE 0 flags = 0x00
  ACE 0 \text{ mask} = 0x001f01ff - R - W - X - D -
DEL CHILD -CHANGE PERMS -
TAKE O
SID = NT AUTHORITY/SYSTEM S-1-5-
18
  ACE 1 is an
ACCESS_ALLOWED_ACE_TYPE
  ACE 1 size = 20
  ACE 1 flags = 0x00
  ACE 1 \text{ mask} = 0x001f01ff - R - W - X - D -
```

#### Hunt

```
share = IPC$ - Remote IPC
share = D$ - Default share
share = ADMIN$ - Remote Admin
share = C$ - Default share
User = Administrator, , , Built-in account for administering the
computer/domain
Admin is PINK08\Administrator
User = Guest, , , Built-in account for guest access to the computer/domain
User = HelpAssistant, Remote Desktop Help Assistant Account, , Account
for Providing Remote Assistance
User = MC131, MC131, ,
User = Student, Student, ,
User = SUPPORT_388945a0, CN=Microsoft
Corporation,L=Redmond,S=Washington,C=US,,
```

C:\>Hunt.exe \\pink08

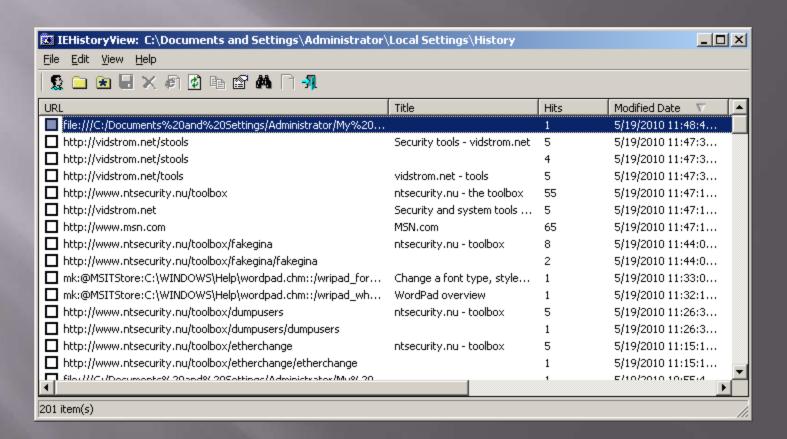
#### Hfind

## GRAPHICAL TOOLS

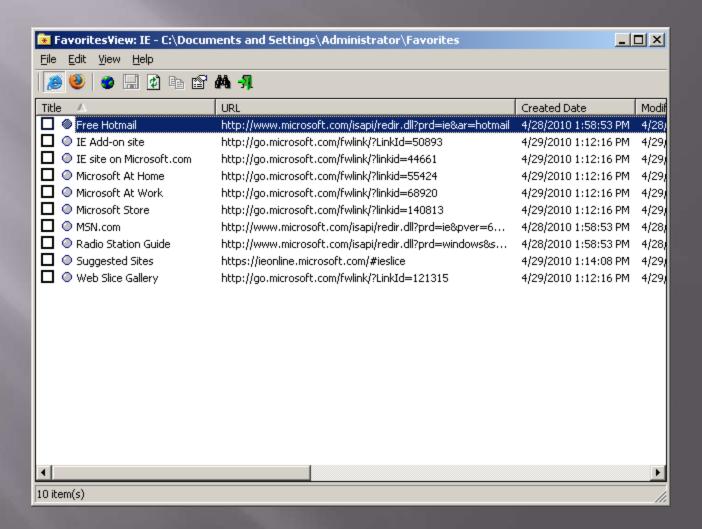
#### WUPS

| W               | JPS 1.4 - Copyright 1998-99, Arne Vidstrom<br>WUPS - Windows UDP Port Scanner<br>http://www.ntsecurity.nu/toolbox/wups/   |  |  |
|-----------------|---|--|--|
| IP to scan:     | 127.0.0.1 Start Scan  |  |  |
| Start port:     | 1 Stop port: 1024 Stop Scan   |  |  |
| Delay, ms:      | 750   |  |  |
| Status:         | Overflow.   |  |  |
| Open UDP ports: | There may be a packet filter between this computer and the system you are scanning. Either it drops the outgoing UDP packets, or the returning ICMP packets, or both. You may also have entered the wrong IP address. Another possible reason is that you have set the Delay too low. |  |  |

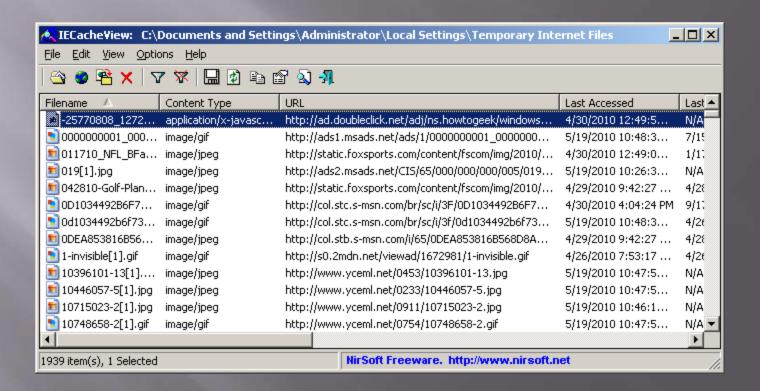
#### **IEHistoryView**



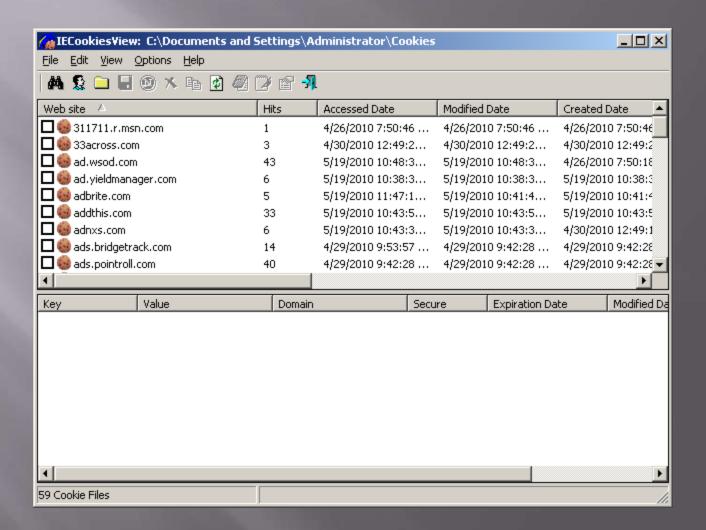
#### FavoritesView:IE



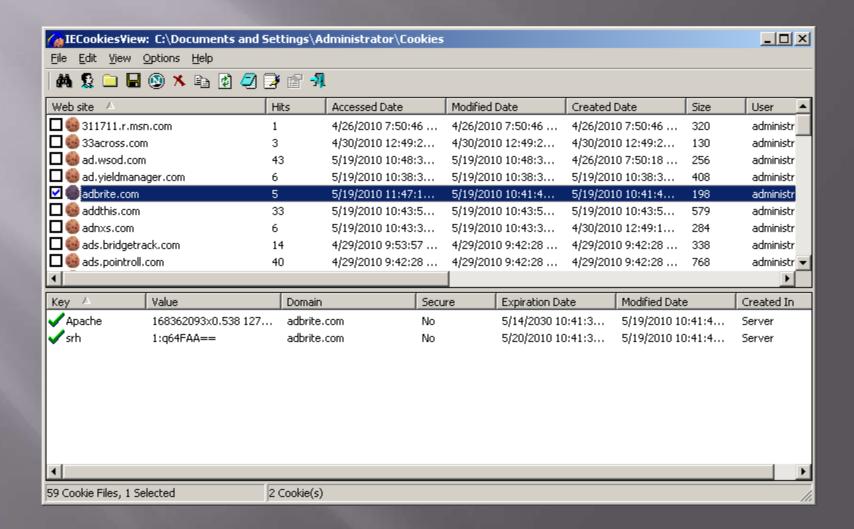
#### **IECacheView**



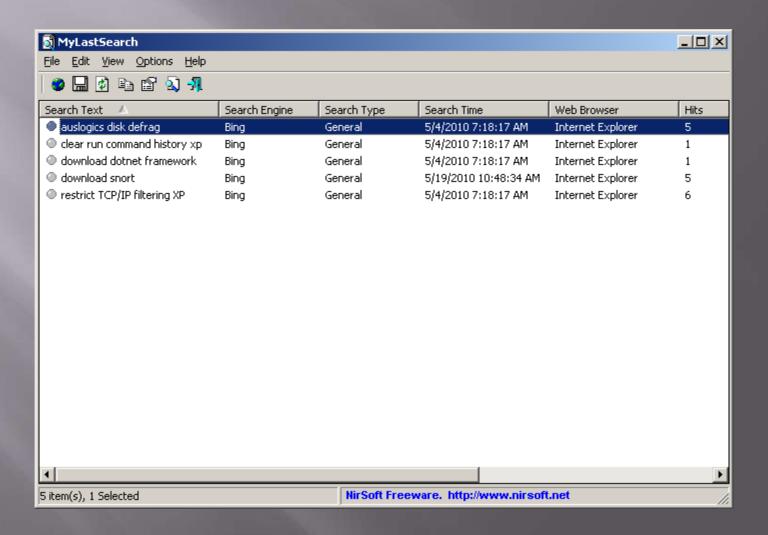
#### **IECookiesView**



#### IECookiesView (with details)



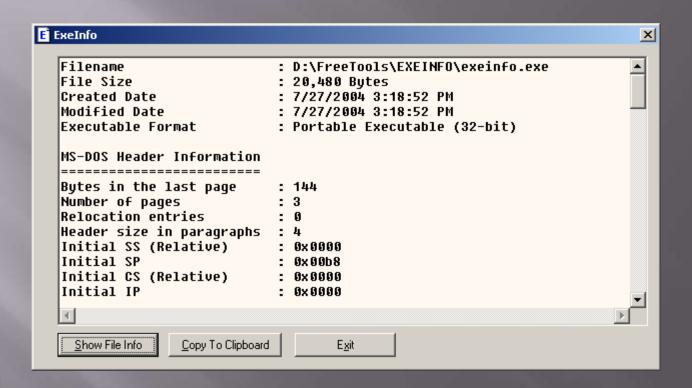
#### MyLastSearch



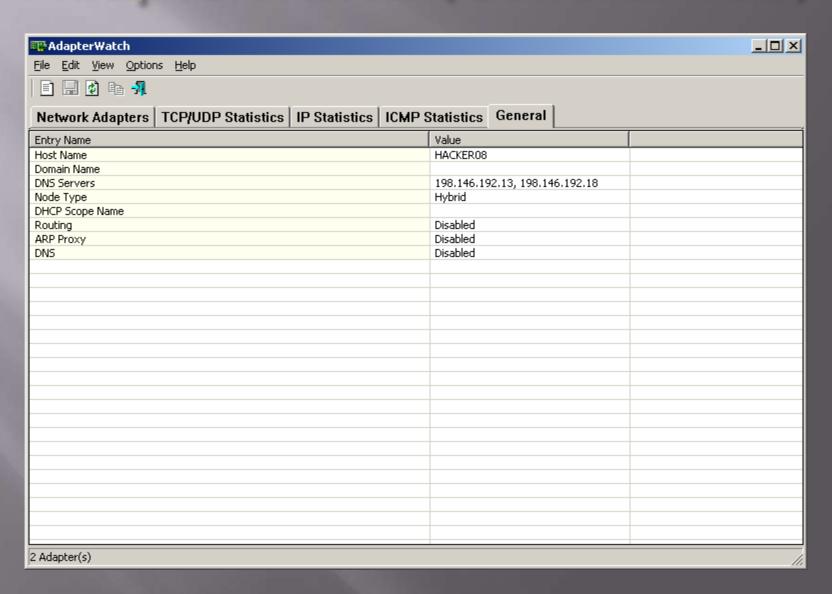
## SiteShoter

| <b>6</b> SiteShoter  |                             | X           |  |  |
|--|-----------------------------|-------------|--|--|
| Single URL/File:   | www.pstcc.edu               | Browse      |  |  |
| C URLs File:   |                             | Browse      |  |  |
| Filename:  |                             | Browse      |  |  |
| Web Browser Option   | ons<br>124 Height: 768      |             |  |  |
| Automatically extend browser size according to Web page  Maximum Width: 2000 Maximum Height: 20000 |                             |             |  |  |
| Cut the Web page in the following location:  |                             |             |  |  |
| Left: 0  | Top: 0 Width: 200 Height: 2 | 200         |  |  |
| ☐ Disable main scrollbars ☐ Disable JavaScript ☐ Disable Flash                                     |                             |             |  |  |
| Save Options  JPEG Quality (0 - 100): 100   Timeout (In milliseconds): 10000                       |                             |             |  |  |
| Image Size (In %): ☐ Open the screenshot file after save   |                             |             |  |  |
| ☐ Take a screenshot of this Web page every 5 Minutes ✓   |                             |             |  |  |
| <u>S</u> tart  | Stop About Exit Save Config | Load Config |  |  |

#### Exelnfo



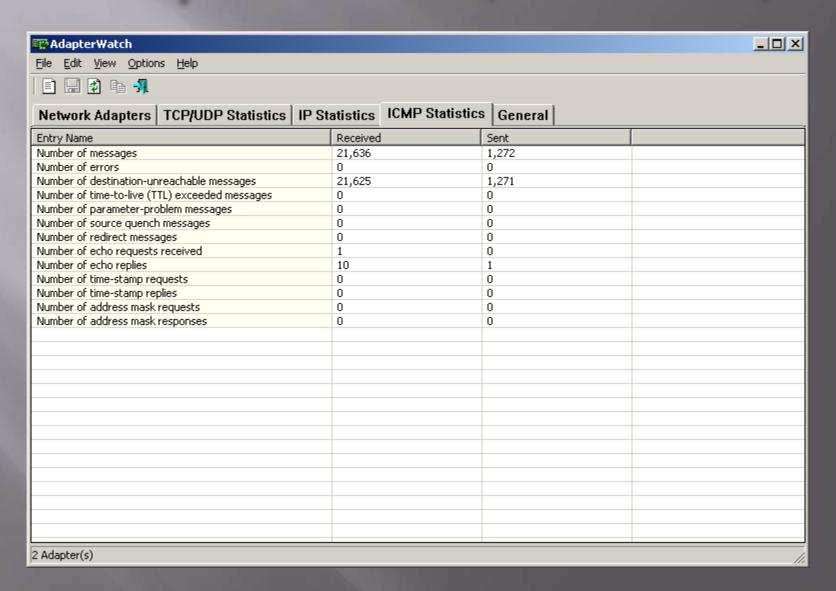
## AdapterWatch (General Tab)



## AdapterWatch (TCP/UDP Tab)

| <b>₩</b> AdapterWatch  |                          | _   _   × |  |  |  |
|--|--------------------------|-----------|--|--|--|
| <u>File Edit View Options Help</u>                                       |                          |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
| Network Adapters   TCP/UDP Statistics   IP Statistics   ICM              | P Statistics   General   |           |  |  |  |
| Entry Name   | Value                    |           |  |  |  |
| TCP Statistics   |                          |           |  |  |  |
| Retransmission time-out (RTO) algorithm                                  | Van Jacobson's Algorithm |           |  |  |  |
| Minimum retransmission time-out value (In Milliseconds)                  | 300                      |           |  |  |  |
| Maximum retransmission time-out value (In Milliseconds)                  | 120,000                  |           |  |  |  |
| Maximum number of connections  | 4,294,967,295            |           |  |  |  |
| Number of active opens   | 579                      |           |  |  |  |
| Number of passive opens  | 4                        |           |  |  |  |
| Number of failed connection attempts                                     | 22                       |           |  |  |  |
| Number of established connections that have been reset                   | 401                      |           |  |  |  |
| Number of currently established connections                              | 1                        |           |  |  |  |
| Number of segments received  | 14,770                   |           |  |  |  |
| Number of segments transmitted   | 10,338                   |           |  |  |  |
| Number of segments retransmitted   | 968                      |           |  |  |  |
| Number of errors received  | 0                        |           |  |  |  |
| Number of segments transmitted with the reset flag set                   | 371                      |           |  |  |  |
| Cumulative number of connections   | 10                       |           |  |  |  |
| UDP Statistics   |                          |           |  |  |  |
| Number of datagrams received   | 9,745                    |           |  |  |  |
| Number of datagrams transmitted  | 77,132                   |           |  |  |  |
| number of received datagrams that were discarded because of invalid port | 25,027                   |           |  |  |  |
| Number of erroneous datagrams that were received                         | 0                        |           |  |  |  |
| Number of entries in the UDP listener table                              | 13                       |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
|  |                          |           |  |  |  |
| 2 Adapter(s)   |                          |           |  |  |  |

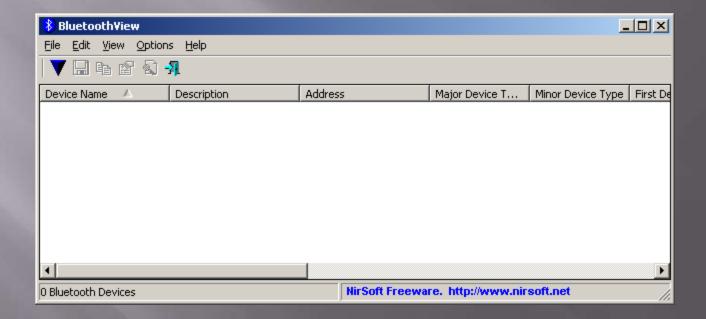
#### AdapterWatch (ICMP Tab)



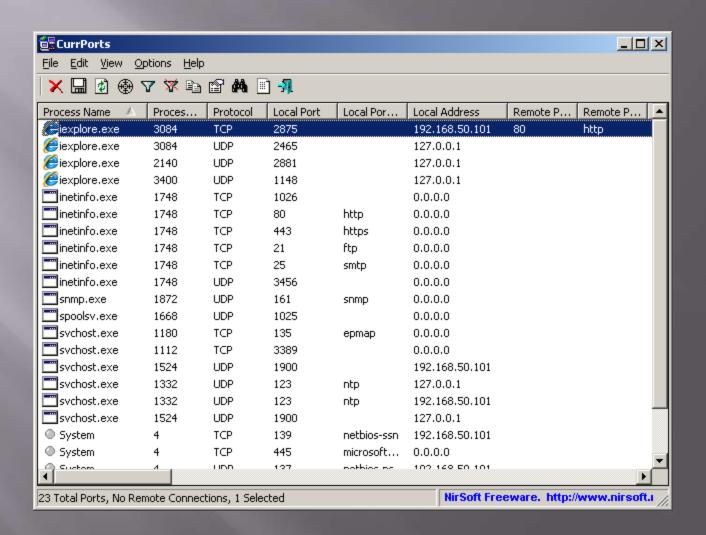
## AdapterWatch (IP Tab)

| <b>■</b> Adapter₩atch  |                    | _ I X |  |  |  |  |  |
|--|--------------------|-------|--|--|--|--|--|
| File Edit View Options Help  |                    |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
| Network Adapters   TCP/UDP Statistics   IP Statistics   ICMP S             | Statistics General |       |  |  |  |  |  |
| Entry Name   | Value              |       |  |  |  |  |  |
| IP Forwarding  | Enabled            |       |  |  |  |  |  |
| Default initial time to live (TTL) value                                   | 128                |       |  |  |  |  |  |
| Number of datagrams received   | 65,005             |       |  |  |  |  |  |
| Number of datagrams received with header error                             | 0                  |       |  |  |  |  |  |
| number of datagrams received with address error                            | 3                  |       |  |  |  |  |  |
| Number of datagrams received with unknown protocol                         | 0                  |       |  |  |  |  |  |
| Number of datagrams forwarded  | 0                  |       |  |  |  |  |  |
| Number of received datagrams discarded                                     | 17,825             |       |  |  |  |  |  |
| Number of received datagrams delivered                                     | 46,716             |       |  |  |  |  |  |
| Number of outgoing datagrams that IP is requested to transmit              | 89,734             |       |  |  |  |  |  |
| Number of outgoing datagrams discarded                                     | 0                  |       |  |  |  |  |  |
| Number of transmitted datagrams discarded                                  | 628                |       |  |  |  |  |  |
| number of datagrams with no route to the destination IP address            | 0                  |       |  |  |  |  |  |
| Amount of time allowed for all pieces of a fragmented datagram to arrive   | 60                 |       |  |  |  |  |  |
| Number of datagrams that were required re-assembly                         | 0                  |       |  |  |  |  |  |
| Number of datagrams that were successfully reassembled                     | 0                  |       |  |  |  |  |  |
| Number of datagrams that failed to reassembled                             | 0                  |       |  |  |  |  |  |
| Number of datagrams that were fragmented successfully                      | 0                  |       |  |  |  |  |  |
| Datagrams that have not been fragmented because the IP header specifies no | 0                  |       |  |  |  |  |  |
| Number of fragments created  | 0                  |       |  |  |  |  |  |
| Number of interfaces   | 3                  |       |  |  |  |  |  |
| Number of IP addresses associated with this computer                       | 3                  |       |  |  |  |  |  |
| Number of routes in the IP routing table                                   | 8                  |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
|  |                    |       |  |  |  |  |  |
| 2 Adapter(s)   |                    | //    |  |  |  |  |  |

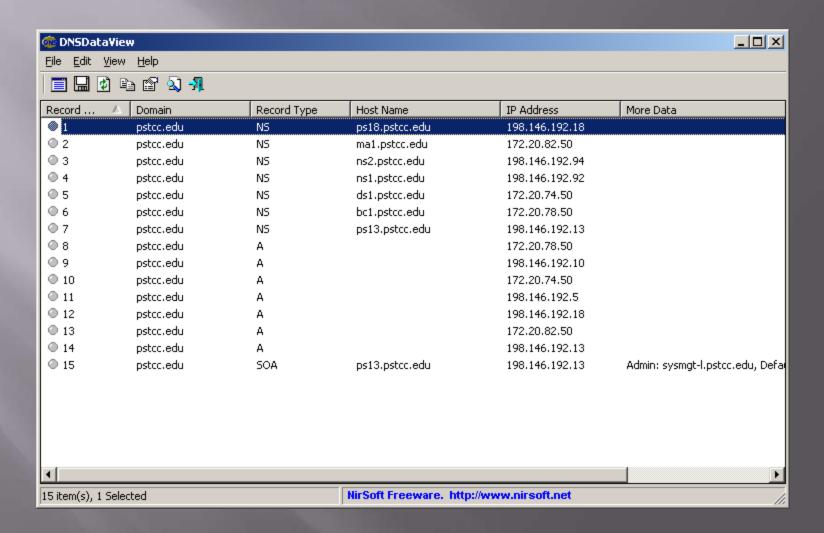
#### BlueToothView



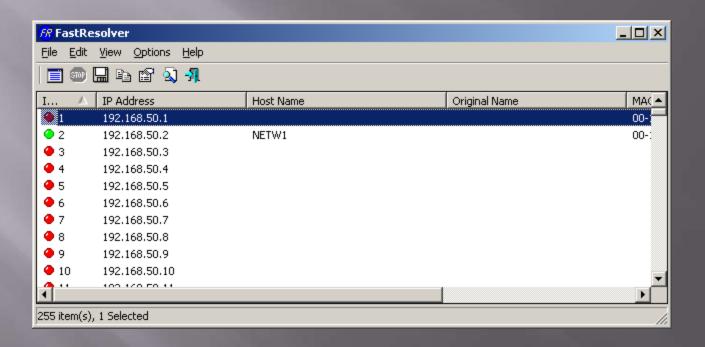
#### CurrPorts



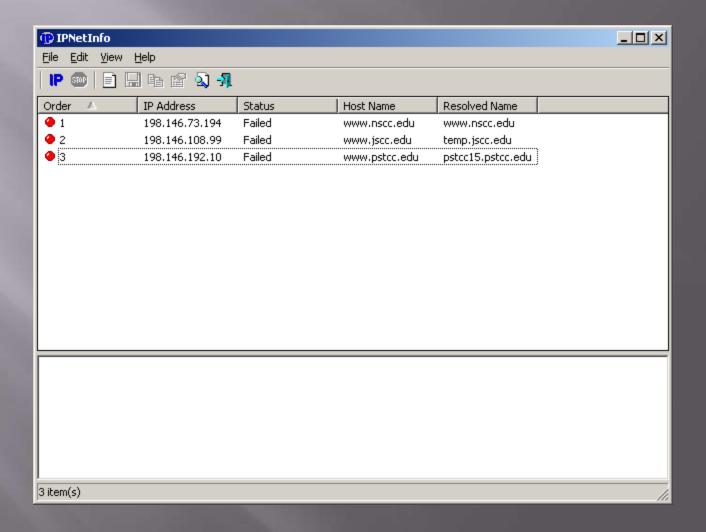
#### DNSDataView



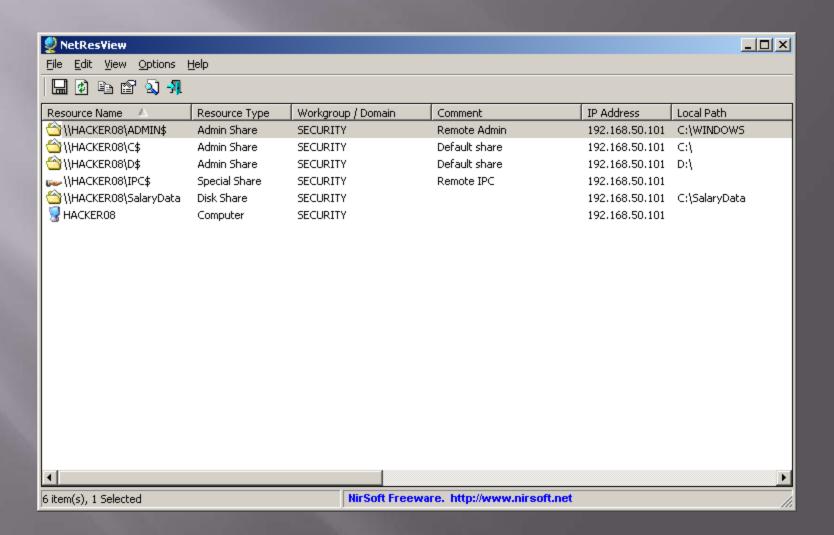
#### FastResolver



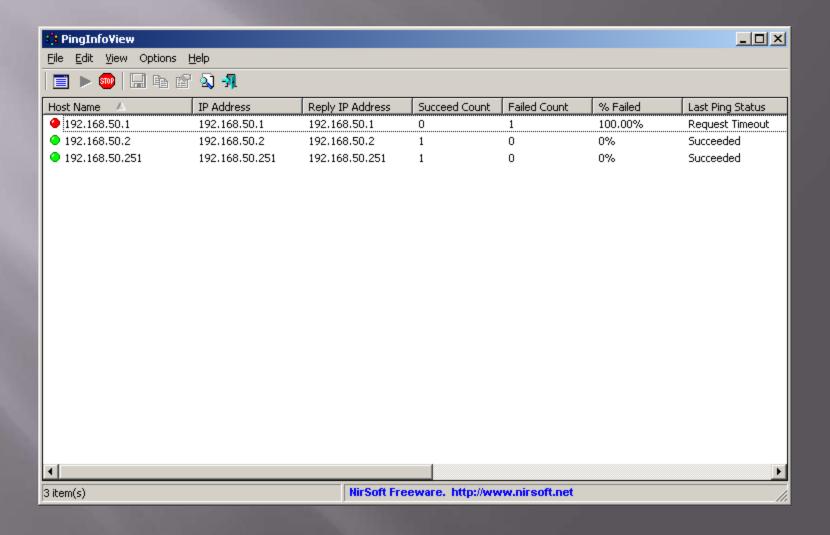
### **IPNetInfo**



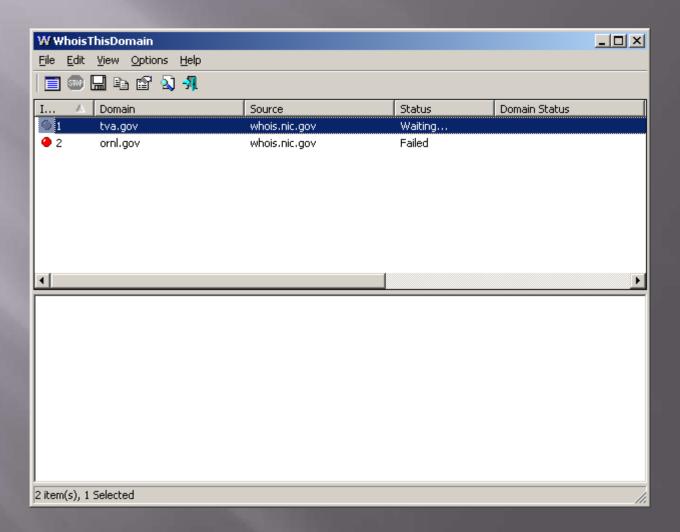
#### NetResView



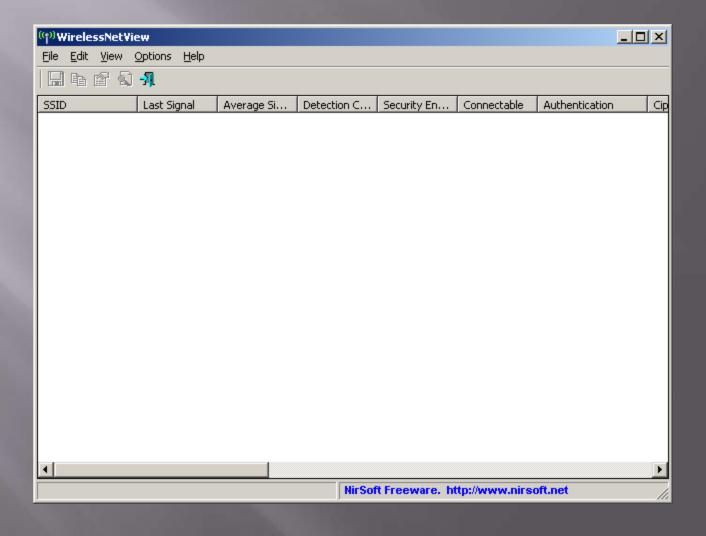
### PingInfoView



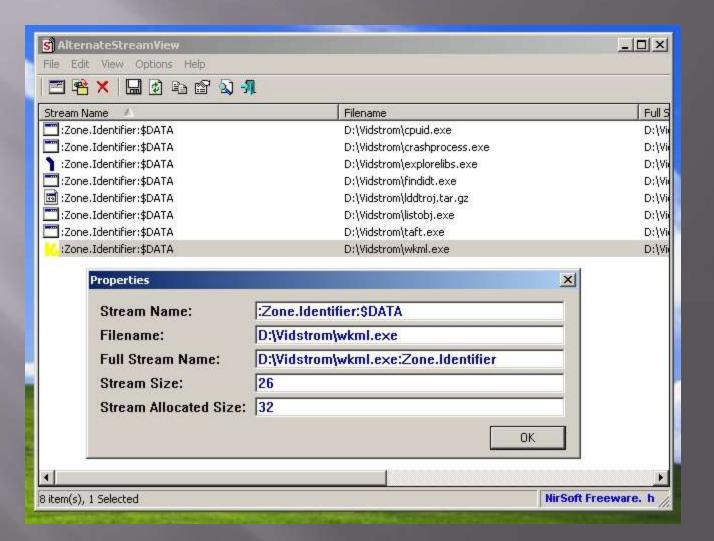
#### WhoisThisDomain



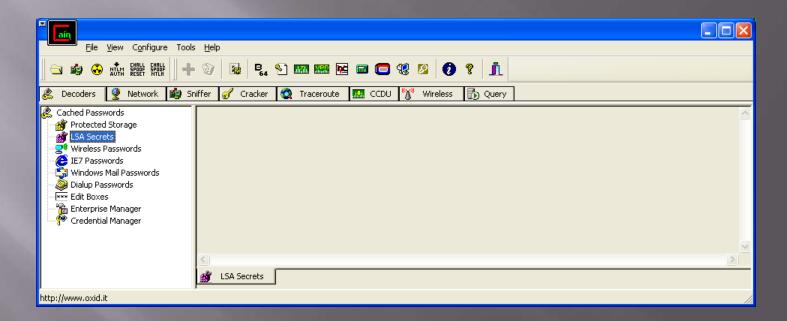
#### WirelessNetView



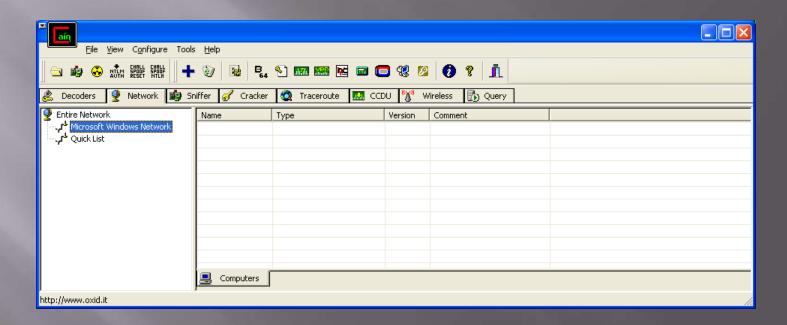
#### AlternateStreamView



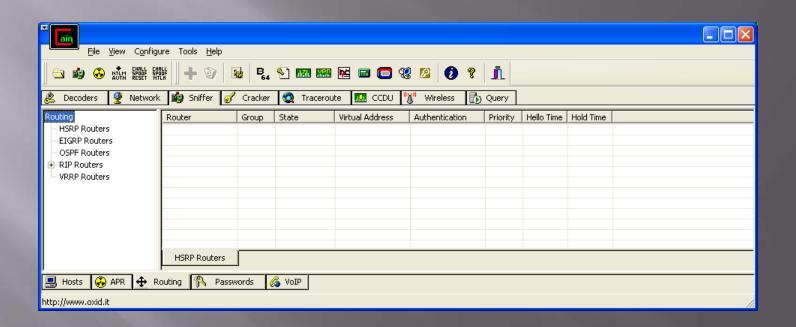
## Cain (Decoders Tab)



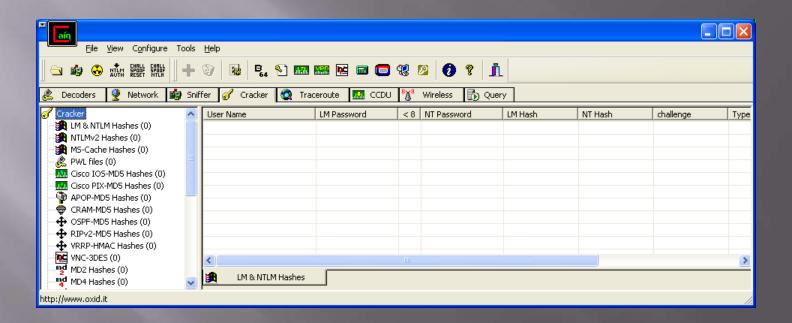
#### Cain (Network Tab)



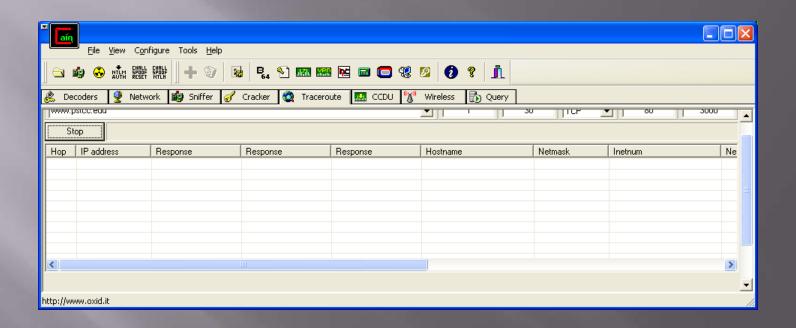
## Cain (Sniffer Tab)



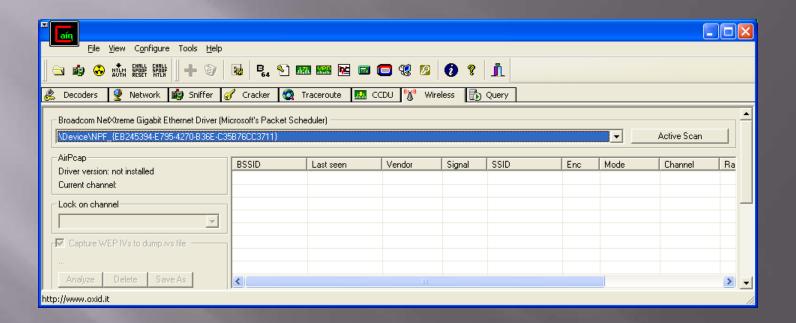
## Cain (Cracker Tab)



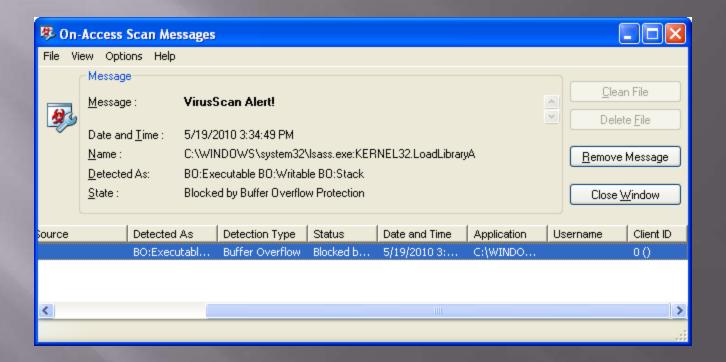
## Cain (Traceroute Tab)



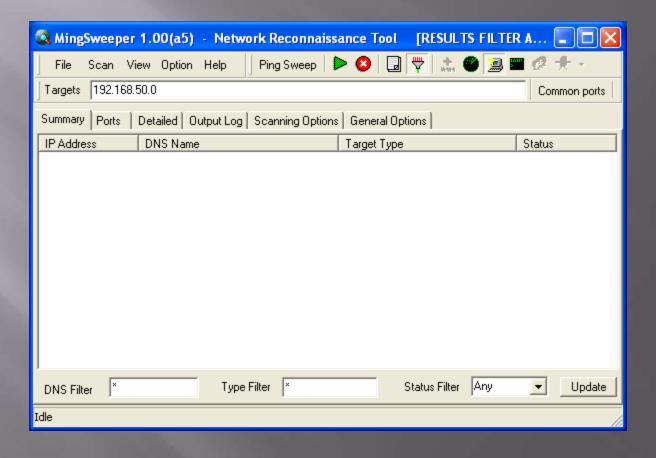
#### Cain (Wireless Tab)



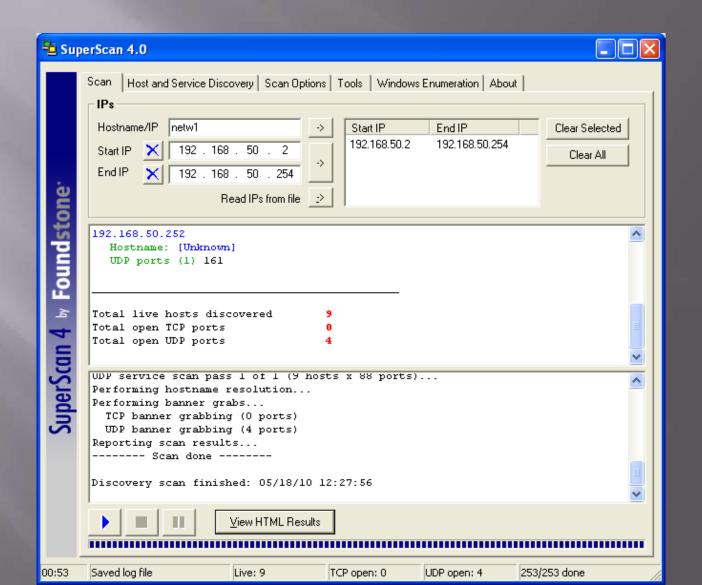
#### Cain (WARNING!!!!!!!!!)



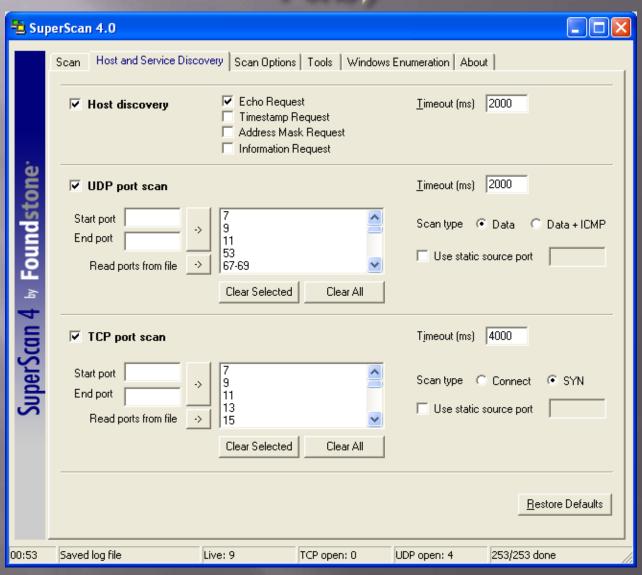
### MingSweeper



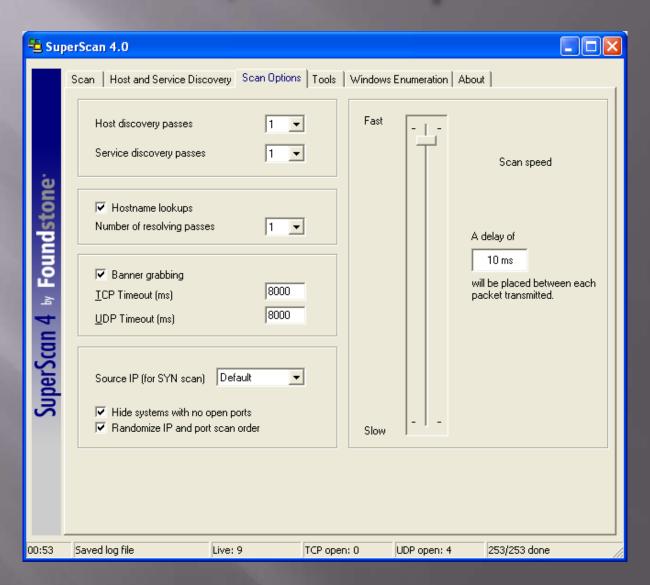
#### SuperScan (Scan Tab)



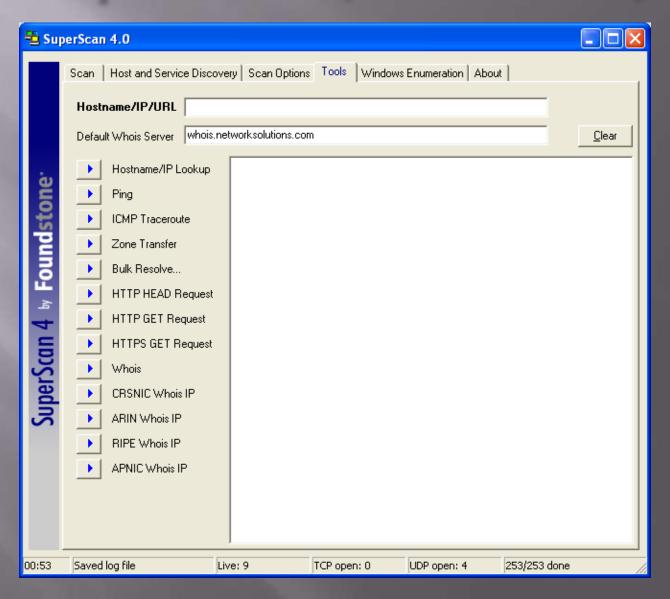
## SuperScan (Host and Discovery Tab)



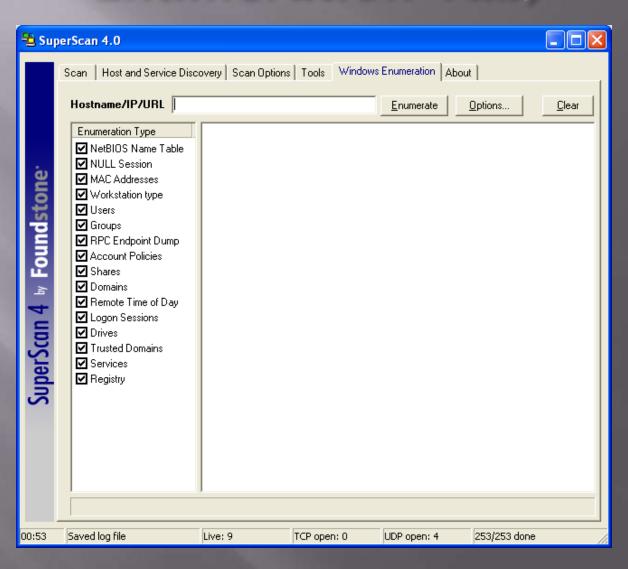
### SuperScan (Scan Options Tab)



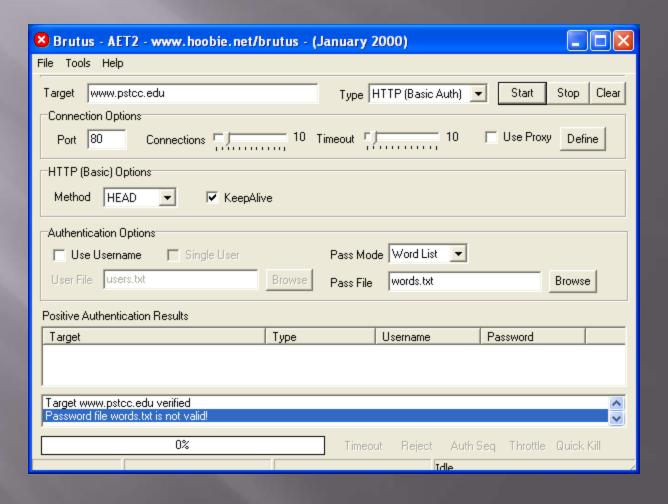
### SuperScan (Tools Tab)



# SuperScan (Windows Enumeration Tab)



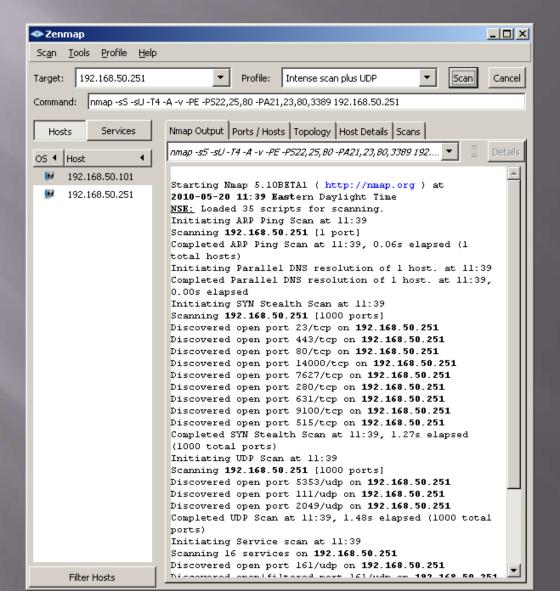
#### Brutus



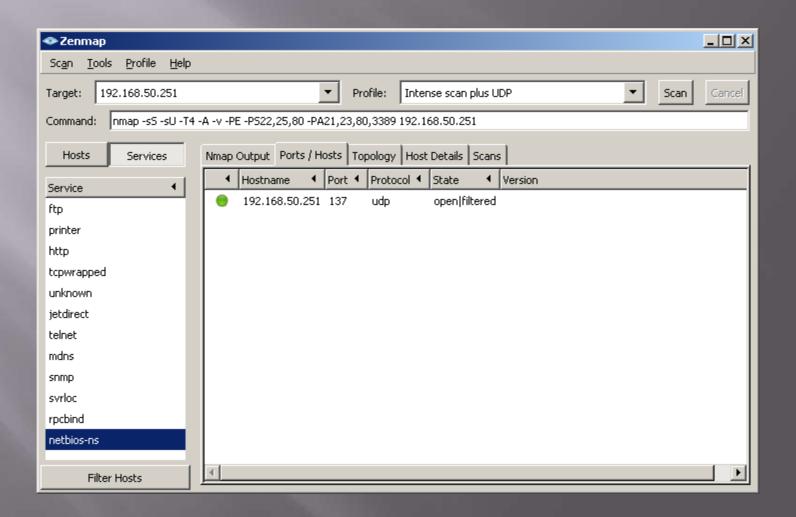
## SmartSniff

| ile <u>E</u> dit | <u>V</u> iew <u>O</u> pt | ions <u>H</u> elp |                |            |             |            |                    |              |         |
|------------------|--------------------------|-------------------|----------------|------------|-------------|------------|--------------------|--------------|---------|
| <b> </b>         | 7 🛦 🗆                    | 7 🔛 🖦 🗗 🐬         |                |            |             |            |                    |              |         |
| Index            | Protocol                 | Local Address     | Remote Address | Local Port | Remote Port | Local Host | Remote Host        | Service Name | Packets |
| 1                | UDP                      | 192.168.50.101    | 198.146.192.94 | 137        | 137         | HACKER08   | ns2.pstcc.edu      | netbios-ns   | 12      |
| <b>2</b>         | ICMP                     | 192.168.50.101    | 192.168.50.1   |            |             | HACKER08   |                    |              | 5       |
| 3                | UDP                      | 192.168.50.101    | 198.146.192.13 | 59600      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |
| 4                | TCP                      | 192.168.50.101    | 65.55.21.250   | 2939       | 80          | HACKER08   | www.co1vip.microso | http         | 3       |
| <b>6</b> 5       | UDP                      | 192.168.50.101    | 198.146.192.13 | 57022      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |
| 6                | TCP                      | 192.168.50.101    | 65.54.77.76    | 2940       | 80          | HACKER08   |                    | http         | 3       |
| 7                | UDP                      | 192.168.50.101    | 198.146.192.13 | 53667      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |
| 8                | TCP                      | 192.168.50.101    | 65.55.17.27    | 2941       | 80          | HACKER08   |                    | http         | 36      |
| 9                | UDP                      | 192.168.50.101    | 198.146.192.13 | 54422      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |
| 10               | UDP                      | 192.168.50.101    | 198.146.192.13 | 63857      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |
| 11               | UDP                      | 192.168.50.101    | 198.146.192.13 | 51713      | 53          | HACKER08   | ps13.pstcc.edu     | domain       | 2       |

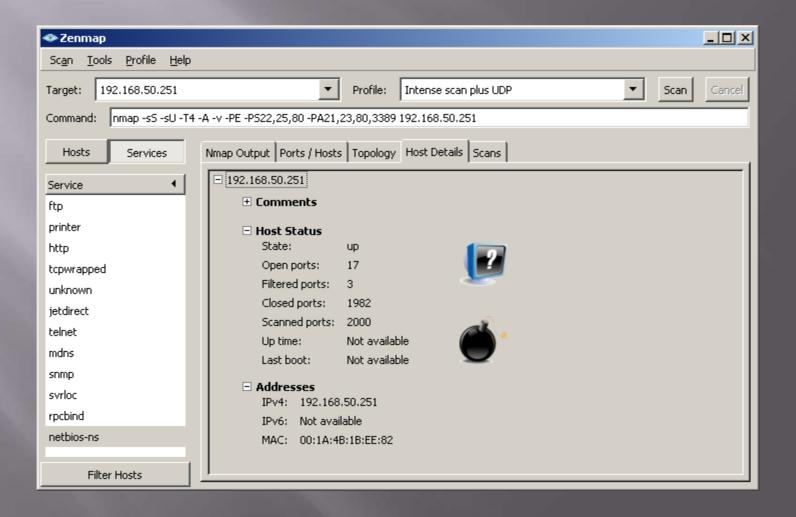
#### Zenmap



### Zenmap, continued



## Zenmap, continued #2



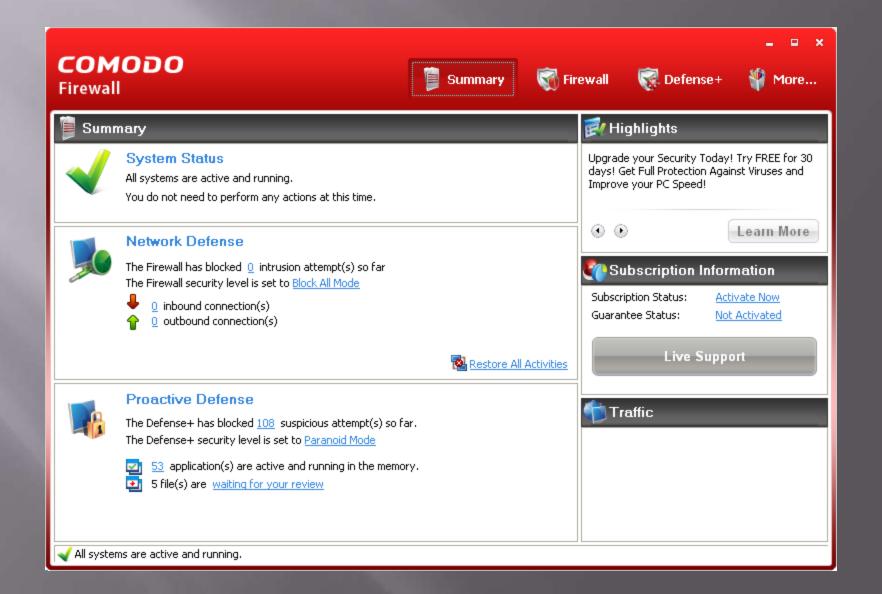
#### Metasploit

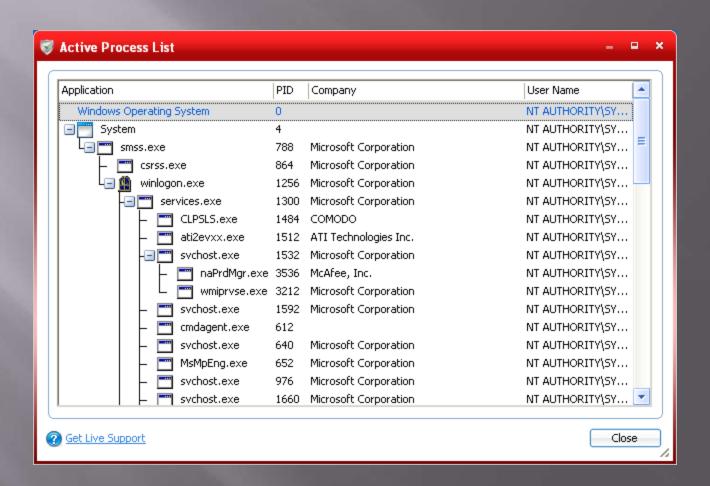
```
B bash
                                                                                                                      [*] Configuring multi-user permissions for first run...
[*] Configuring the initial user environment...
                                                 ###
                                                                        ##
          #### ###### ####
                                                                      #####
                                                                        ##
                                                                        ##
                                                 ##
                                                       ## ##
                                                                 ##
                                                                        ##
                                           ##
        =[ metasploit v3.3.3-release [core:3.3 api:1.0]
  -- --= [ 481 exploits - 220 auxiliary
-- --= [ 192 payloads - 22 encoders - 8 nops
= [ svn r7957 updated 148 days ago (2009
                                              (2009.12.23)
Warning: This copy of the Metasploit Framework was last updated 148 days
          We recommend that you update the framework at least every other day.
          For information on updating your copy of Metasploit, please see:
              http://dev.metasploit.com/redmine/projects/framework/wiki/Updating
<u>msf</u> >
<u>msf</u> > ?
Core Commands
-----
    Command
                    Description
                    Help menu
                    Move back from the current context
    back
    banner
                    Display an awesome metasploit banner
    \mathsf{cd}
                    Change the current working directory
    color
                    Togale color
                    Communicate with a host
    connect
    exit
                    Exit the console
    help
                    Help menu
     info
                    Displays information about one or more module
```

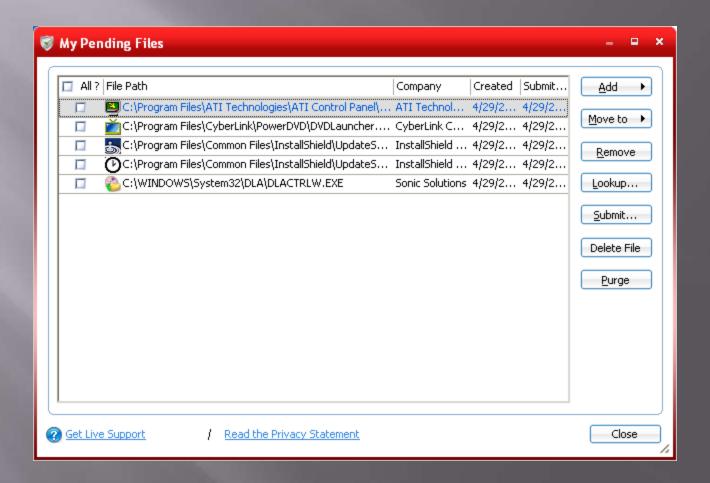
### Comodo



#### Comodo











Summary







#### Firewall Tasks







#### **View Firewall Events**

This section allows you to view a record of the events and alerts triggered by possible attacks on your computer.



#### **Define a New Trusted Application**

This shortcut represents a convenient way to create an automatic Allow rule for applications that you trust.



#### **Define a New Blocked Application**

This shortcut represents a convenient way to create an automatic Deny rule for applications that you do not trust.



#### Stealth Ports Wizard

This wizard allows you to create a set of global firewall rules, which will affect your computer's visibility from other computers.



#### View Active Connections

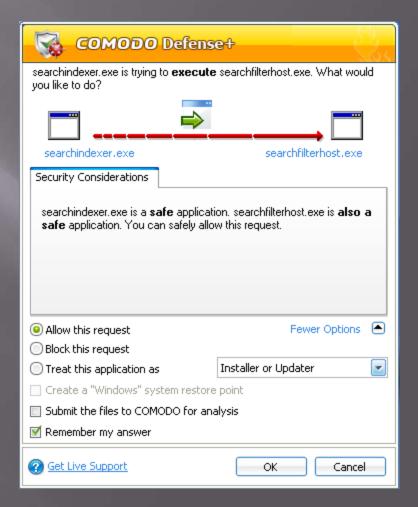
View which applications are currently connecting to the Internet along with the IP, Port, Protocol and Traffic level of the connection.



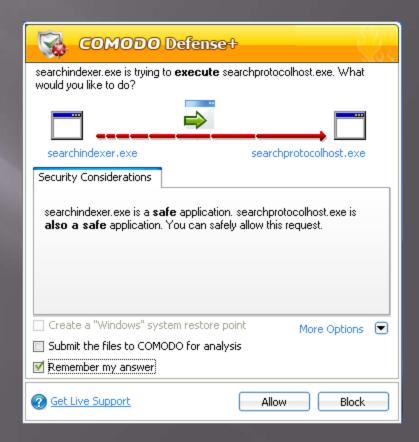
#### My Blocked Network Zones

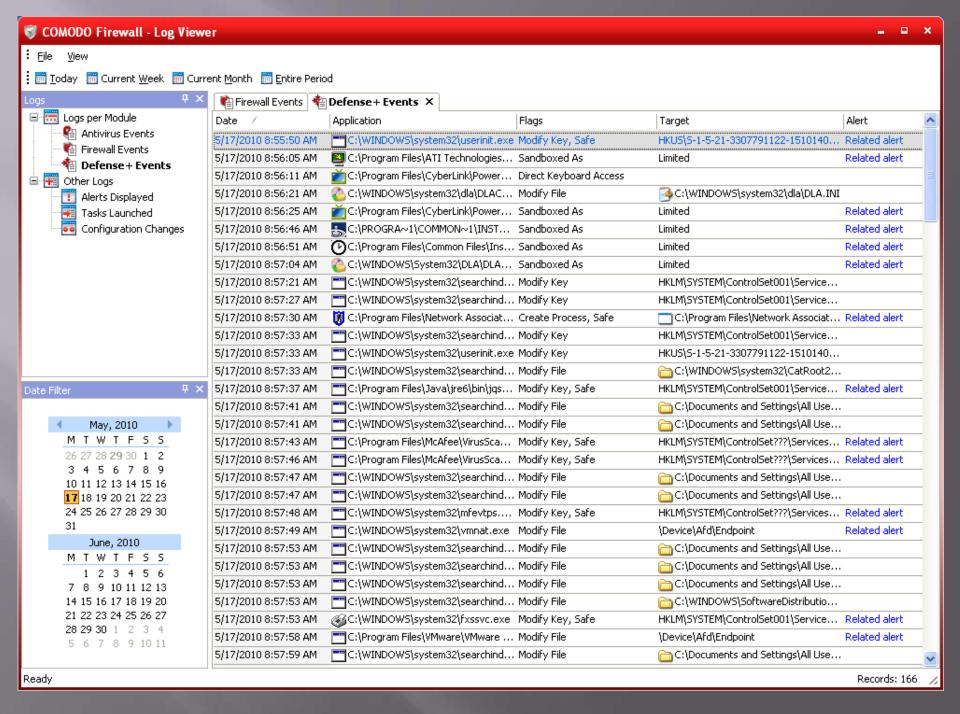
Allows you to define which addresses or network zones your computer should not communicate with. For example, spyware sites.

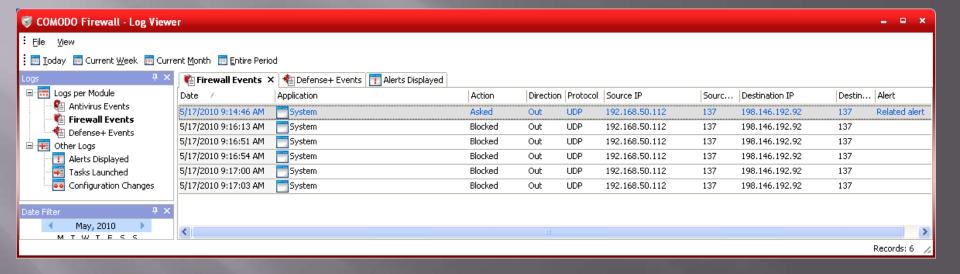




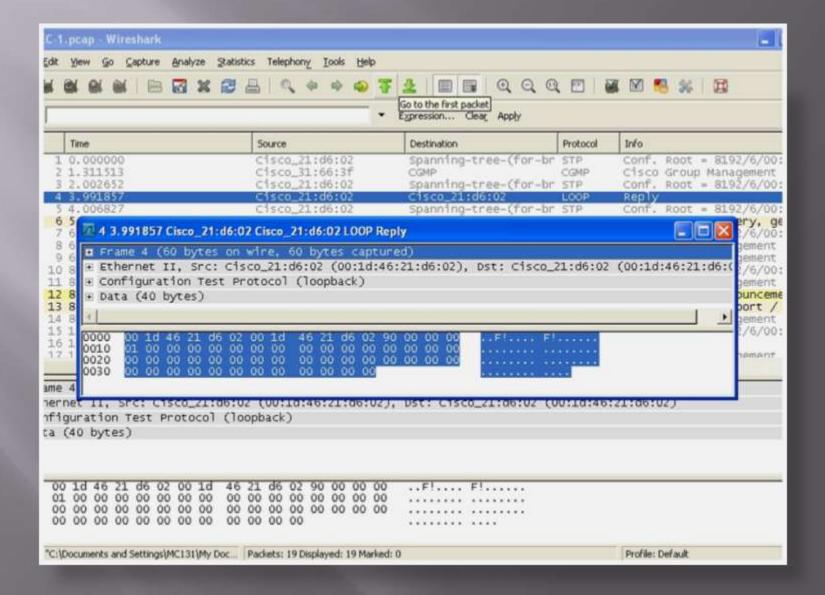




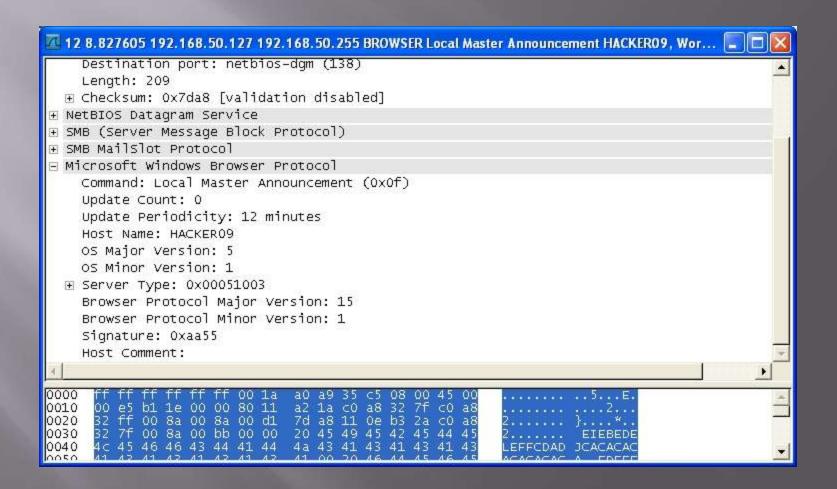




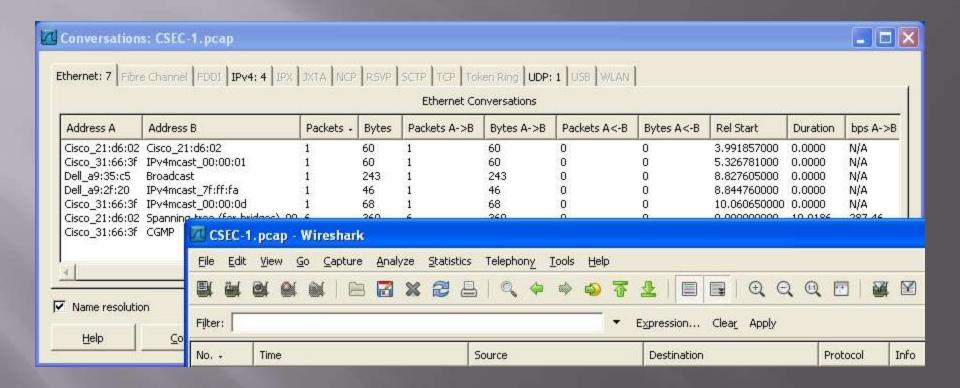
#### Wireshark



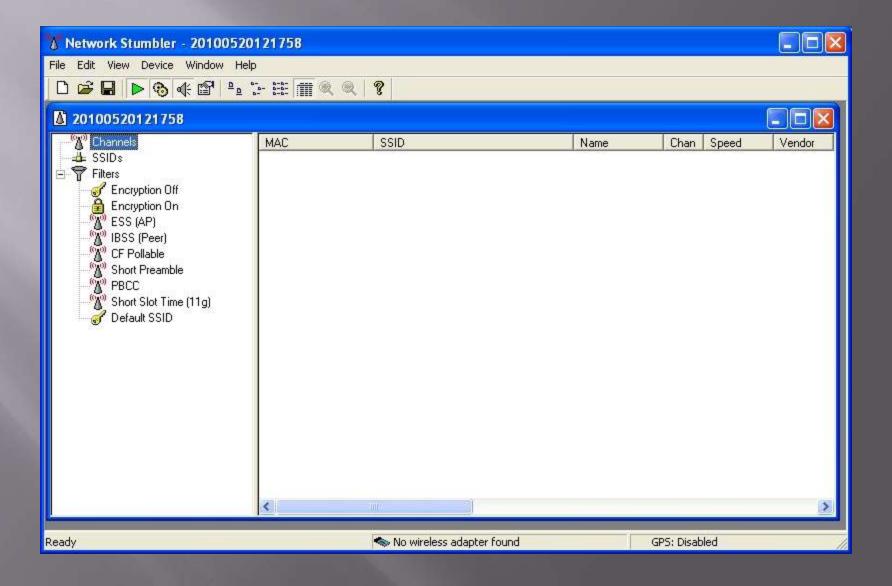
### Wireshark



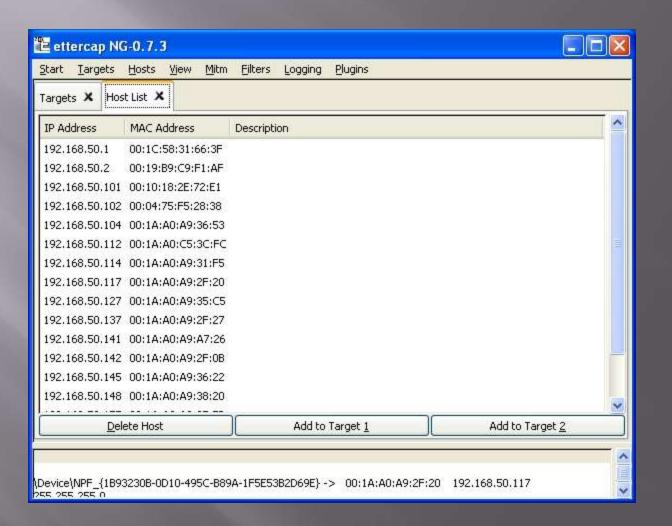
### Wireshark



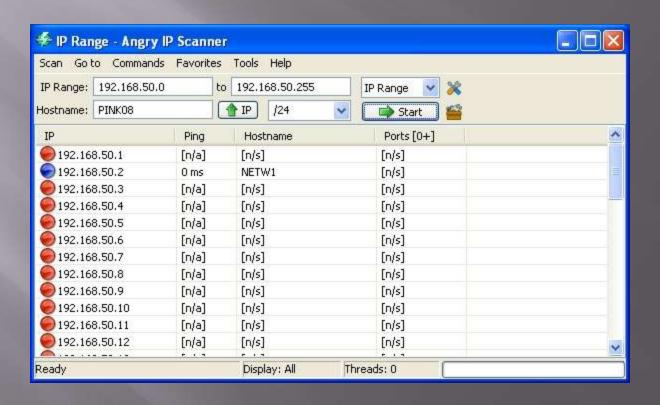
## NetStumbler



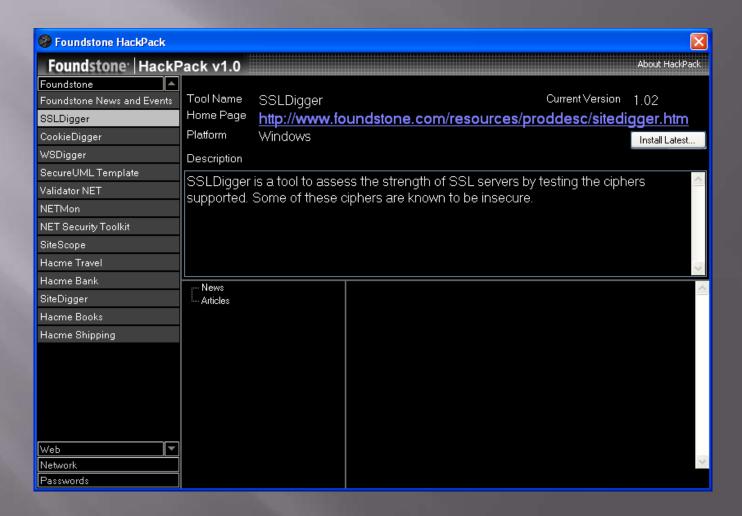
## Ettercap



# Angry IP Scanner



## Hackpack



## Hackpack: WSDigger

