

Ćwiczenie 3. Skanery stanu zabezpieczeń

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Komputer: 237-16










Zadanie 1

Rys. 1.1 (poniżej) Obraz okna programu *Microsoft Baseline Security Analyzer* zawierającego nagłówek (strona *View security report*) oraz wykaz najważniejszych stwierdzonych usterek.





Computer name: GRUPA_ROBOCZA\STUDENT
IP address: 10.3.237.194
Security report name: GRUPA_ROBOCZA - STUDENT (2010-03-29 13:59)
Scan date: 2010-03-29 13:59
Scanned with MBSA version: 1.2.4013.0
Security update database version: Security updates scan not performed
Security assessment: Severe Risk (One or more critical checks failed.)

Windows Scan Results

Vulnerabilities

Score	Issue	Result
	Automatic Updates	The Automatic Updates system service is not correctly configured. What was scanned How to correct this
	Password Expiration	Some user accounts (2 of 3) have non-expiring passwords. What was scanned Result details How to correct this
	Local Account Password Test	Some user accounts (1 of 3) have blank or simple passwords, or could not be analyzed. What was scanned Result details
	File System	All hard drives (3) are using the NTFS file system. What was scanned Result details
	Autologon	Autologon is not configured on this computer. What was scanned
	Guest Account	The Guest account is disabled on this computer. What was scanned
	Restrict Anonymous	Computer is properly restricting anonymous access. What was scanned
	Administrators	No more than 2 Administrators were found on this computer. What was scanned Result details
	Windows Firewall	Windows Firewall is enabled on all network connections. What was scanned Result details

Additional System Information

Score	Issue	Result
	Auditing	Logon Success auditing is enabled, however Logon Failure auditing should also be enabled. What was scanned How to correct this
	Services	Some potentially unnecessary services are installed. What was scanned Result details How to correct this
	Shares	4 share(s) are present on your computer. What was scanned Result details How to correct this
	Windows Version	Computer is running Windows 2000 or greater. What was scanned

Internet Information Services (IIS) Scan Results




Score	Issue	Result
	IIS Status	IIS is not running on this computer.

SQL Server Scan Results

Score	Issue	Result
	SQL Server/MSDE Status	SQL Server and/or MSDE is not installed on this computer.


Desktop Application Scan Results

Vulnerabilities

Score	Issue	Result
	IE Enhanced Security Configuration for Administrators	The use of Internet Explorer is not restricted for administrators on this server. What was scanned How to correct this
	IE Enhanced Security Configuration for Non-Administrators	The use of Internet Explorer is not restricted for non-administrators on this server. What was scanned How to correct this
	IE Zones	Internet Explorer zones have secure settings for all users. What was scanned
	Macro Security	No Microsoft Office products are installed

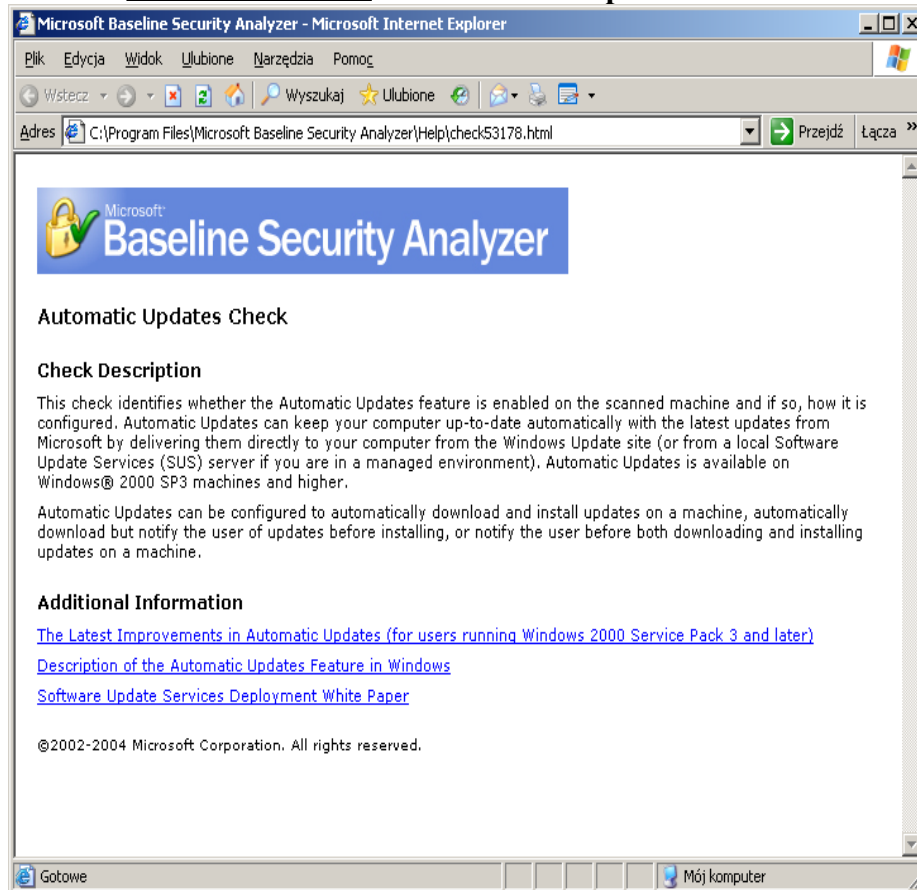
Najpoważniejsze wykryte usterki:

	IE Enhanced Security Configuration for Administrators	The use of Internet Explorer is not restricted for administrators on this server. What was scanned How to correct this
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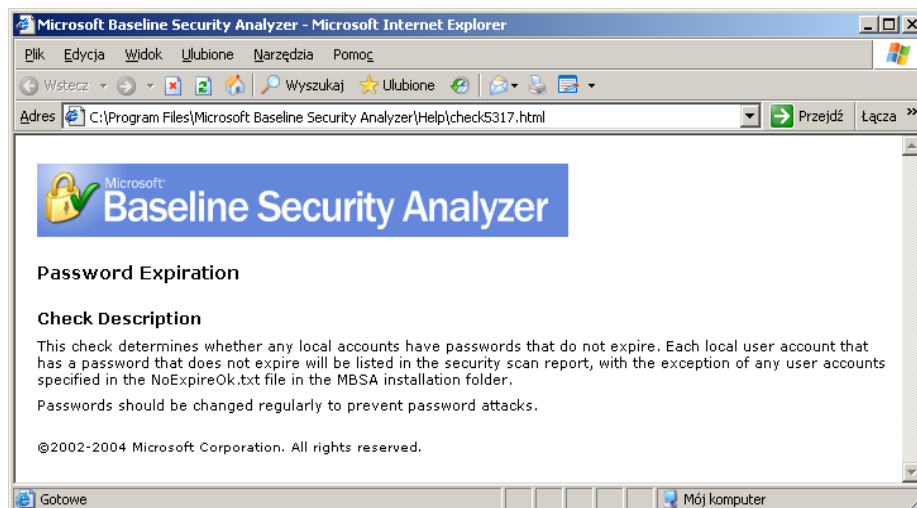
	Automatic Updates	The Automatic Updates system service is not correctly configured. What was scanned How to correct this
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Rys. 1.2 (poniżej) Obraz najważniejszych elementów okna programu *Microsoft Baseline Security Analyzer* osiągalnego po wybraniu jednego z łączników *What was scanned*.

Łącznik *What was scanned* dla Automatic Updates Check



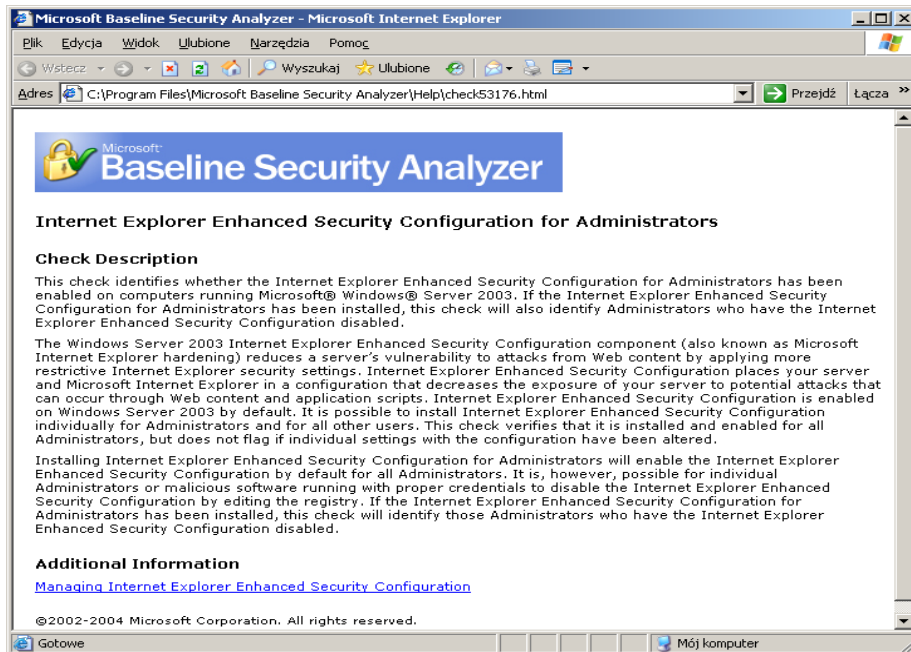
Łącznik *What was scanned* dla Password Expiration



Łącznik *What was scanned* dla Internet Explorer Enhanced Security Configuration for Non-Administrators

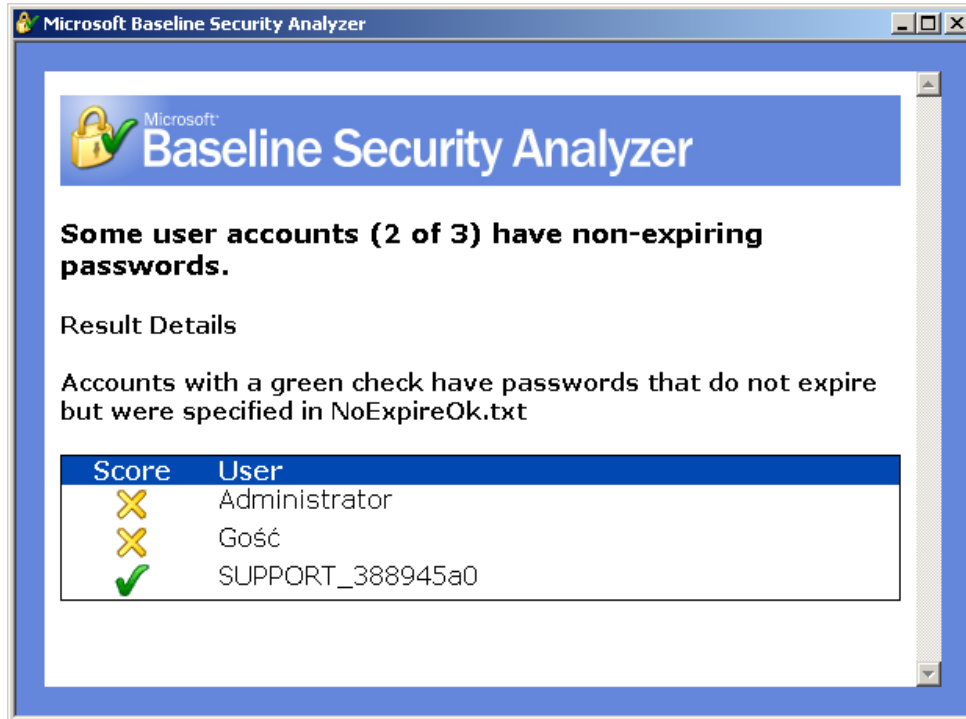


Łącznik *What was scanned* dla Internet Explorer Enhanced Security Configuration for Administrators

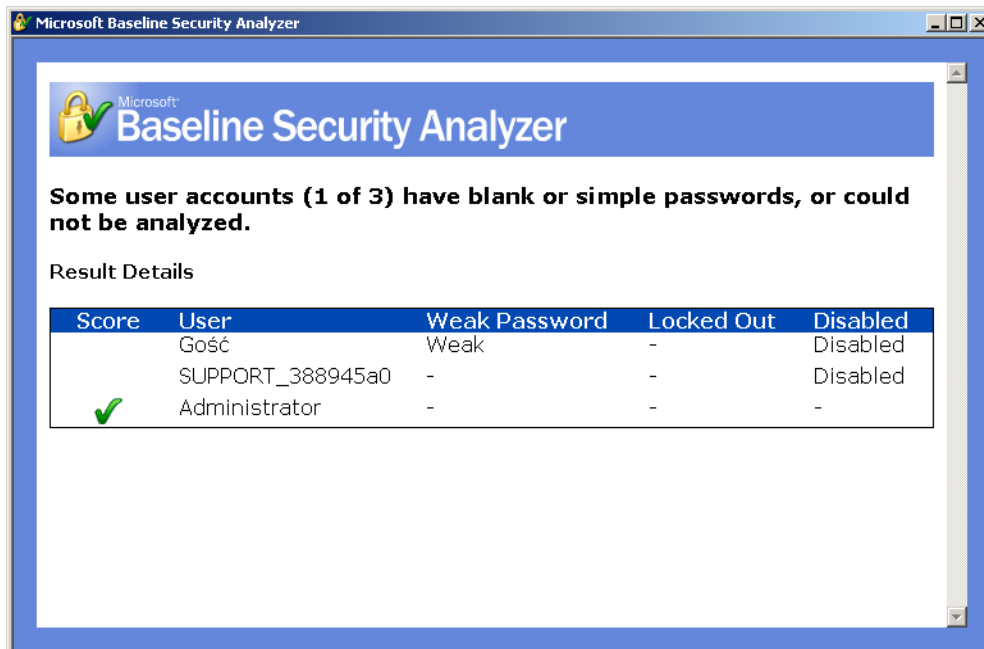


Rys. 1.3 (poniżej) Obraz najważniejszych elementów okna programu *Microsoft Baseline Security Analyzer* osiągalnego po wybraniu jednego z łączników *Result details*.

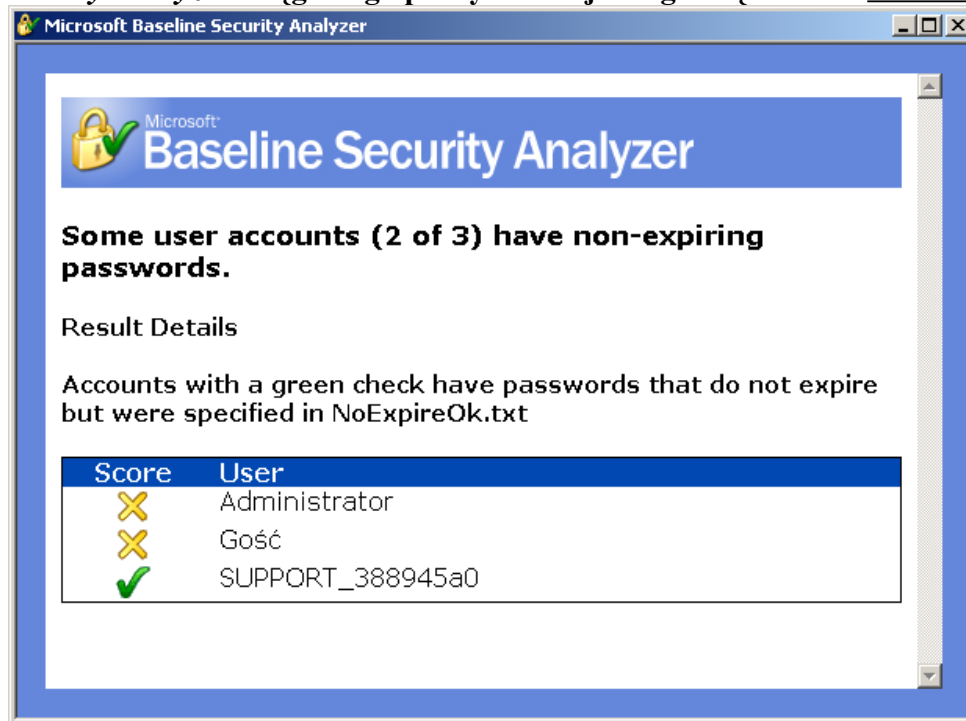
Łącznik *Result details* dla Password Expiration



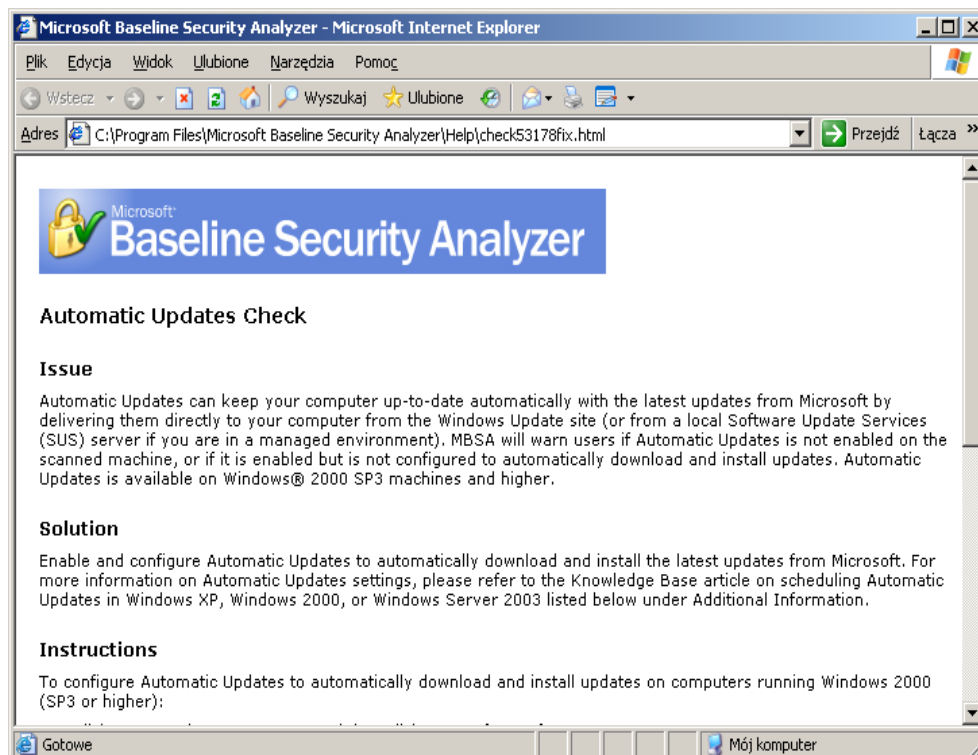
Łącznik *Result details* dla Local account Password Test



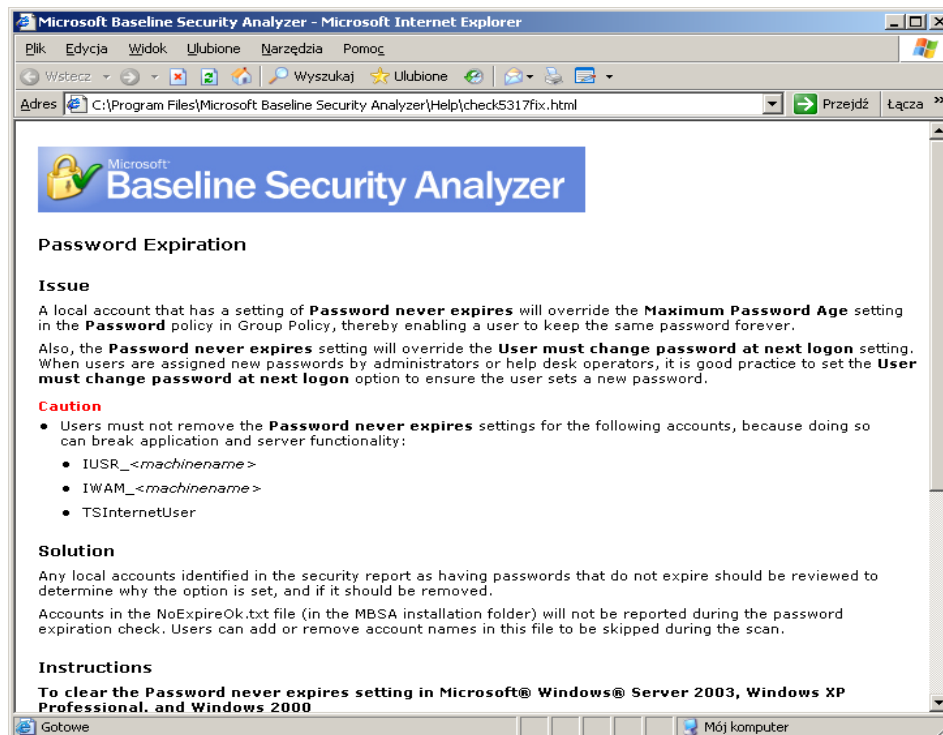
Rys. 1.4 (poniżej) Obraz najważniejszych elementów okna programu *Microsoft Baseline Security Analyzer* osiągalnego po wybraniu jednego z łączników *How to correct this*.



Łącznik *How to correct* dla Automatic Updates



Łącznik *How to correct* dla Password Expiration



WŁASNE SPOSTRZEŻENIA I WNIOSKI do zadania 1:

Narzędzie to służy do sprawdzania stanu zabezpieczeń systemu w sieci (w naszym przypadku jest to Windows 2003 Server z dodatkiem SP1) oraz przeglądarki Internet Explorer (w naszym przypadku 6.0). Ponadto jesteśmy informowani o dostępnych udostępnionych poprawkach na serwerze firmy Microsoft, o jakości haseł, ważnych ustawień konfiguracyjnych. Po każdym skanowaniu program wyświetla nam raport: z informacjami co zostało zeskanowane, wynikiem szczegółowym oraz informacją pomocną do zabezpieczenia systemu/przeglądarki.

W naszym przypadku program zgłasza problemy dotyczące: automatycznych aktualizacji (zostały one przez nas wyłączone), długości wygasania hasła (nie wygasa), "dziurawą" przeglądarką. Wszystkie problemy w zakładkach są rozwiązywane sposobem: zainstaluj / odznacz / zaznacz. Zostały one tak skonstruowane aby początkujący użytkownik komputera mógł z nich skorzystać.

Zadanie 2

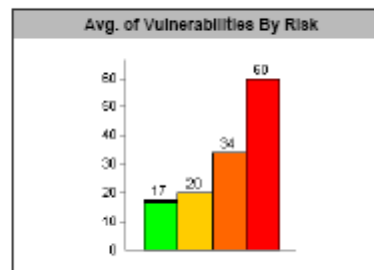
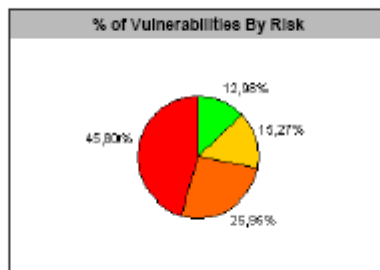
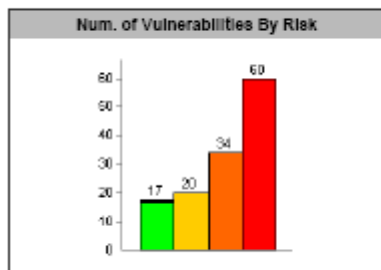
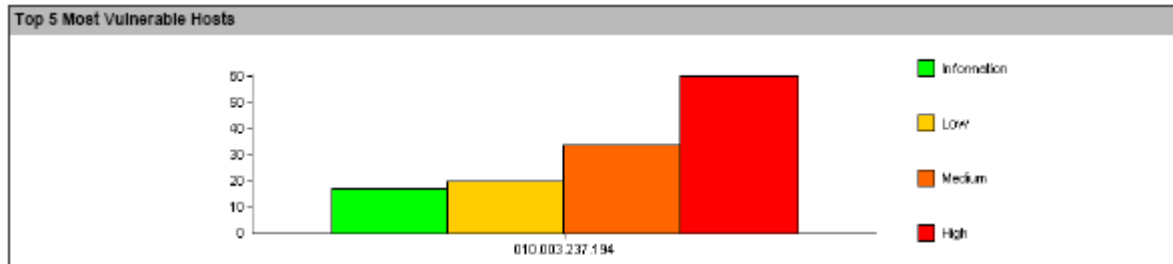
Rys. 2.1 (poniżej) Obraz głównego okna programu *Retina* po zakończeniu skanowania (pod zakładką *Audit*) z widocznymi informacjami identyfikującymi skanowany komputer.

[-] General	
Address	10.3.237.194
Report Date	2010-03-29 14:48:56
Host Targeting Response	Yes
Time To Live	0
Traceroute	10.3.237.194
[-] Hardware	
Disk Drive	A:
Disk Drive	C:
Disk Drive	D:
Disk Drive	E:
Disk Drive	F:
Memory	1 815 MB
Processor	CPU0
Processor	CPU1
USB Device	Urządzenie kompozytowe USB
USB Device	Rodzajowy koncentrator USB

Rys. 2.2 (poniżej) Obraz okna zawierającego całą sekcję *Network Analysis Results* raportu głównego (podsumowanie informacji w sekcji i wszystkie wykresy).

NETWORK ANALYSIS RESULTS

Report Summary			
Scanner Name	Retna	Machines Scanned	1
Scanner Version	5.10.2	Vulnerabilities Total	114
Scan Start Date	2010-03-29	High Risk Vulnerabilities	60
Scan Start Time	14:48:55	Medium Risk Vulnerabilities	34
Scan Duration	0h 1m 2s	Low Risk Vulnerabilities	20
Scan Name	Grzegorz Pol	Information Only Audits	17
Scan Status	Completed	Credential Used	
Vulnerable Machines	1		



Rys. 2.3 (poniżej) Obraz okna zawierającego tabelę w sekcji *Top 20 Vulnerabilities* raportu głównego.

Rank	Vulnerability Name	Count
1.	Account Lockout Duration	1
2.	Account Lockout Threshold - FDCC	1
3.	Account Lockout Threshold	1
4.	Forced Logoffs Disabled	1
5.	Last Username	1
6.	Microsoft Windows User Rights Assignment - Deny Logon As Batch - Guests	1
7.	Min Password Age	1
8.	Min Password Length - FDCC	1
9.	Min Password Length	1
10.	Password Does Not Expire	1
11.	Password History	1
12.	Microsoft Windows Domain Name System (DNS) Spoofing (953230) - Client	1
13.	ICMP Timestamp Request	1
14.	ISAKMP Server detected	1
15.	Adobe Reader/Acrobat 8.1.2 and 7.1.0 Update - Reader 8.x	1
16.	Adobe Reader/Acrobat Javascript Method Handling Vulnerability - Reader 8.x	1
17.	Audit Backup and Restore	1
18.	Microsoft Windows Malicious Software Removal Tool	1
19.	Microsoft WordPerfect Converter Command Execution	1
20.	Mozilla Firefox BasicAuth Dialog Spoofing Vulnerability	1

Rys. 2.4 (poniżej) Obraz okna zawierającego cały opis i procedurę usunięcia usterki Cumulative Security Update of ActiveX Kill Bits (950760) z raportu *Procedury*

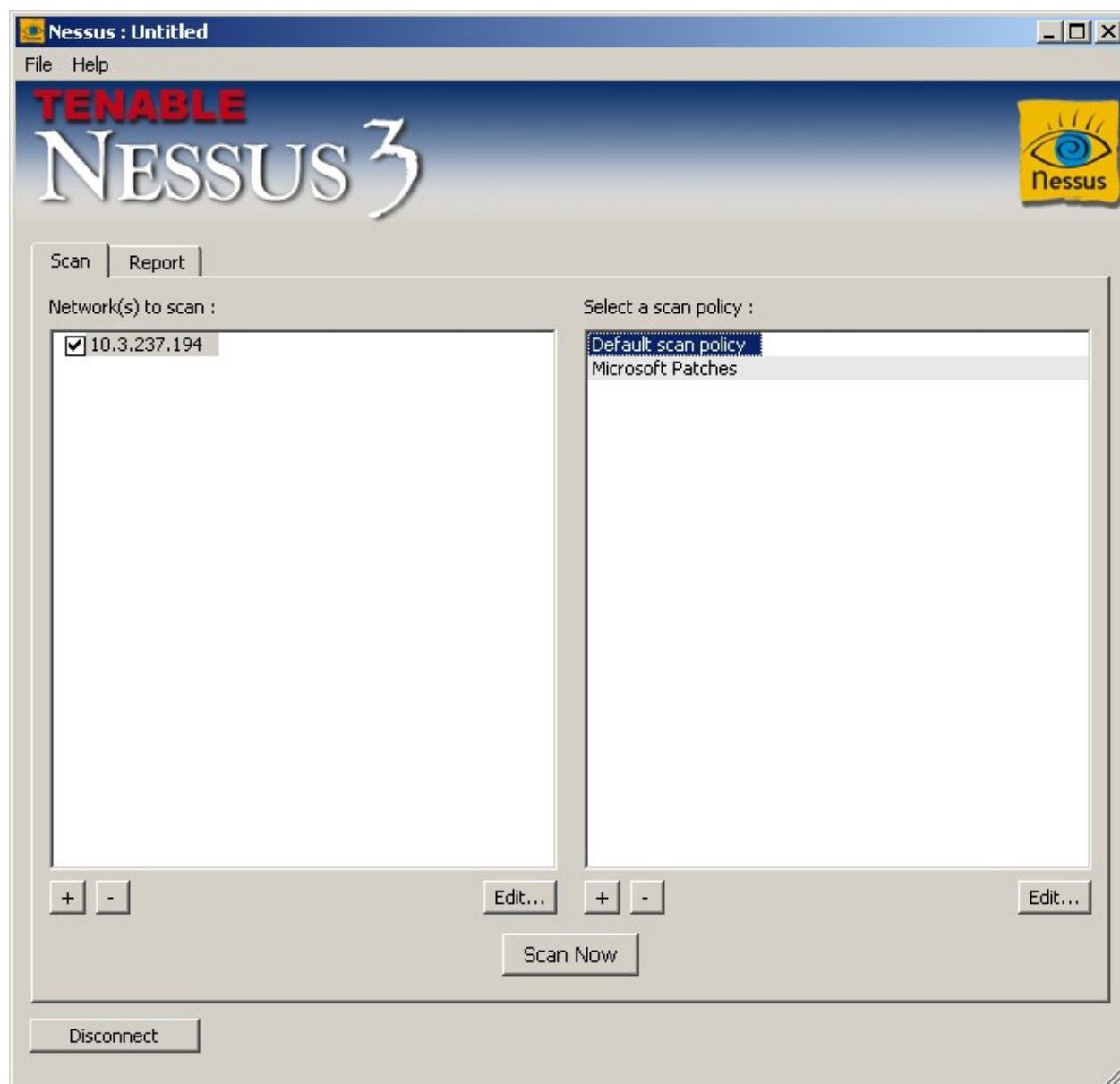
Cumulative Security Update of ActiveX Kill Bits (950760)	
Audit ID:	6762
Vul ID:	
Risk Level:	High
Sev Code:	
PCI Severity Level:	5 (Urgent)
CVSS Score:	
Category:	Windows
Description:	This cumulative update addresses several vulnerabilities including remote code execution vulnerabilities in the Speech Components ActiveX Control (sapi.dll) and Microsoft Help Visuals ActiveX Control (hxvz.dll). This update sets the kill bit for Speech Components ActiveX Control, Microsoft Help Visuals ActiveX Control, and also includes an update for third party ActiveX controls.
How To Fix:	For information on how to protect against this vulnerability, upgrade to the full version of Retina.
Related Links:	KB950760 (http://support.microsoft.com/default.aspx?scid=950760) Microsoft Security Bulletin MS08-032 (http://www.microsoft.com/technet/security/bulletin/MS08-032.msp) Secunia Advisory - 30578 (http://secunia.com/advisories/30578/) SecurityTracker ID - 1020232 (http://www.securitytracker.com/alerts/2008/Jun/1020232.html) VU#216153 (http://www.kb.cert.org/vuls/id/216153)
CVE:	CVE-2007-0675 (http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2007-0675) - A remote code execution vulnerability exists in the Speech Components sapi.dll. An attacker could exploit the vulnerability by constructing a specially crafted Web page. When a user views the Web page, the vulnerability could allow remote code execution. The user must have the Speech Recognition feature in Windows enabled. An attacker who successfully exploited this vulnerability could gain the same user rights as the logged on user. CVE-2008-0956 (http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2008-0956) - BackWeb Lite Install Runner is an ActiveX control that is used to install software on Microsoft Windows systems. This BackWeb component is packaged with Logitech Desktop Messenger, which comes bundled with Logitech mouse software and possibly other Logitech products. The BackWeb Lite Install Runner ActiveX control, which is provided by LiteInstActivator.dll, contains stack buffer overflow vulnerabilities in multiple methods.
IAV:	
BugtraqID:	22359 (http://www.securityfocus.com/bid/22359) - Microsoft Windows Speech Components Voice Recognition Command Execution Vulnerability 29558 (http://www.securityfocus.com/bid/29558) - BackWeb 'LiteInstActivator.dll' ActiveX Control Buffer Overflow Vulnerability
STIG:	
Total Machines Affected:	1 (100,0% of Total Scanned)
Affected Machines:	
Affected Items:	

WŁASNE SPOSTRZEŻENIA I WNIOSKI do zadania 2:

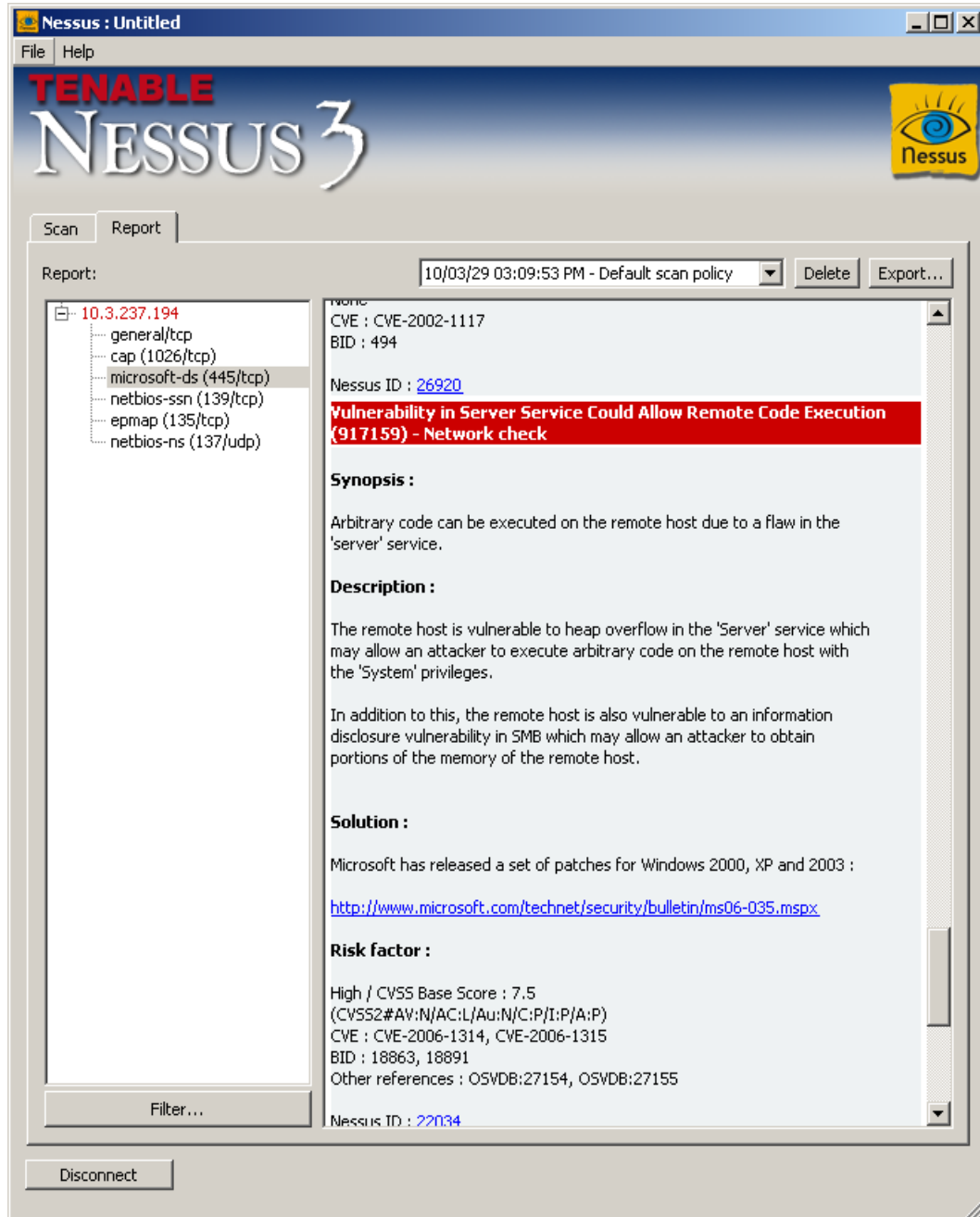
Retina Network Security Scanner to narzędzie służące do skanowania sieci w poszukiwaniu luk, które mogą okazać się niebezpieczne. Następnie program ocenia stopień zagrożenia każdej z nich i podaje najlepsze rozwiązania. Skanowanie sieci trwa dość krótko. Program dodatkowo generuje raporty zawierające sporą ilość wykresów co ułatwia przyswajanie informacji.

Zadanie 3

Rys. 3.1 (poniżej) Obraz okna klienta pakietu *Nessus* zawierającego informacje o wybranym obiekcie skanowania i wybranej zasadzie.



Rys. 3.2 (poniżej) Obraz okna klienta pakietu *Nessus* zawierającego najważniejsze elementy opisu dowolnie wybranej usterki.



WŁASNE SPOSTRZEŻENIA I WNIOSKI do zadania 3:

Nessus jest skanerem badającym ponad 20 tysięcy punktów w systemie zagrażających naszemu bezpieczeństwu. W ciągu kilku minut skaner dostarcza nam czytelny i przejrzysty raport w postaci drzewka, niestety pozbawiony wykresów. Raporta możemy zapisać w formacie *.as by móc odczytać później.

Zadanie 4

Rys. 4.1 (poniżej) Obraz okna zawierającego raport *Network Vulnerability Assessment Summary*.

Network Vulnerability Assessment Summary

03/29/2010

This report explains how susceptible the organization could be to an attack based on the number and the severity (or risk level) of vulnerabilities detected by Internet Scanner after scanning the network.

Intended audience: This report is intended for senior management who need a high-level overview of the number and severity of vulnerabilities detected on systems scanned on the network.

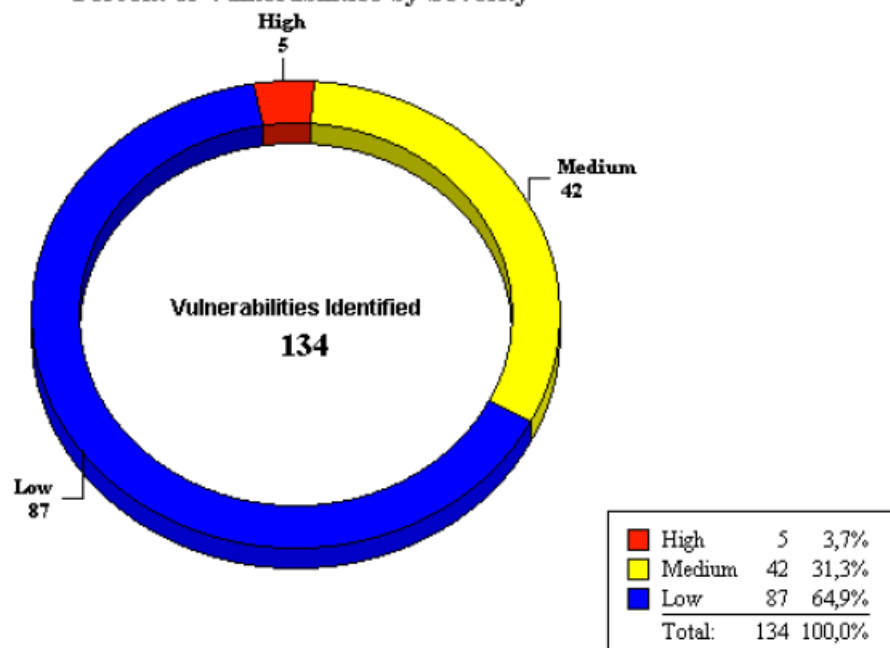
Purpose: This report is a high-level overview summarizing the total number of vulnerabilities that have been detected on systems located on the network, grouped by severity. This report can be used to assess the state of an organization's security and to determine if progress is being made in the overall security program.

Related reports: For more information about which hosts on the network are vulnerable, as well as a complete list of the vulnerabilities sorted by risk level (high, medium, and low), see the Line Management/Host Assessment/Host Vulnerability Count reports.

Session Information

Session Name:	Session1[1]	File Name:	Session1[1]_20100329
Policy:	L4 NT Server	Key:	
Hosts Scanned:	1	Hosts Active:	1
Scan Start:	2010-03-29 15:12:36	Scan End:	2010-03-29 15:17:56
Comment:			

Percent of Vulnerabilities by Severity



Rys. 4.2 (poniżej) Obraz okna zawierającego fragment raportu *Technician - Vulnerability Assessment*, z opisem i procedurą usunięcia usterki Generate Security Audit Privilege: Inappropriate user with Generate Security Audits privilege Vuln count = 2

<u>Session Information</u>			
Session Name:	Session1[1]	File Name:	Session1[1]_20100329
Policy:	L4NT Server	Key:	
Hosts Scanned:	1	Hosts Active:	1
Scan Start:	2010-03-29 15:12:36	Scan End:	2010-03-29 15:17:56
Comment:			

IP Address {DNS Name}	Operating System
127.0.0.1 {student}	Windows XP

H Generate Security Audit Privilege: Inappropriate user with Generate Security Audits privilege
Vuln count = 2

Additional Information

More Information

USLUGA LOKALNA

USLUGA SIECIOWA

A user has been detected with the Generate Security Audits privilege. This right is not normally granted to any user.

Remedy:

Verify advanced user rights in User Manager.

To audit and revoke this privilege:

1. Open User Manager. From the Windows NT Start menu, select Programs, Administrative Tools (Common), and User Manager.
2. From the Policies menu, select User Rights to display the User Rights Policy dialog box.
3. Select the Show Advanced User Rights check box.
4. From the Right list, select Generate security audits.
5. Verify this right is set in accordance with your security policy.
6. To remove a user, select the user and click Remove.

For a Windows 2000 domain:

1. Start Microsoft Management Console (MMC).
2. Add Group Policy Snap-in.
3. Browse Group Policy Objects.
4. Select the Domain Policy of interest.
5. Traverse the following path: Computer Configuration, Windows Settings, Security Settings, Local Policies, and User Rights Assignment.
6. Set the user right to desired setting according to your administration policy.

For a stand-alone Windows 2000 computer:

1. On the computer of interest, start gpedit.msc. The focus is local computer by default.
2. Traverse the following path: Computer Configuration, Windows Settings, Security Settings, Local Policies, and User Rights Assignment.
3. Set the user right to desired setting according to your administration policy.

WŁASNE SPOSTRZEŻENIA I WNIOSKI do zadania 4:

IIS Internet Security tak jak poprzednie programy służy do wykrywania luk w sieci. Program po dość długim skanowaniu (porównując z innymi badanymi dziś programami) umożliwia wygenerowanie bardzo szczegółowych raportów o błędach. Zostały one podzielone w zależności od zagrożenia na High, Medium, Low po to by użytkownik skupił się na poważniejszych z nich.