

CSE 805 MID 2 (LAB exam)

Lab 04: Windows Registry Analysis (using Autopsy)

REGISTRY

What we need: Autopsy, Analyzing Image

Questions?

1. Find out the computer name?
2. Current version of windows?
3. User accounts?
4. Find out the time zone?
5. Find out the IP address?
6. Find out the mounted devices?

Note: The main system registry files most often viewed by examiners are:

- System
- Security
- Software
- SAM

Ans to the Q: No: 1

/img_Lab Image.E01/WINDOWS/system32/config/

SYSTEM > ControlSet001 > Control > ComputerName

Computer Name:

The screenshot shows the Autopsy 4.21.0 interface. On the left, the 'Data Sources' pane shows the file system structure of the image, with 'Windows (38)' selected. The main pane displays the registry path 'img_Lab Image.E01/Windows/System32/config/' and a table of registry values. The 'ComputerName' value is highlighted, showing the value 'IACIS-HDD-2014'.

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SAMLOG1				2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	58368	Unallocated	Unallocated
SAMLOG2				2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SECURITY			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	262144	Allocated	Allocated
SECURITY.LOG			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	1024	Allocated	Allocated
SECURITY.LOG1			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	21504	Allocated	Allocated
SECURITY.LOG2				2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	21504	Unallocated	Unallocated

The 'ComputerName' value is highlighted in the 'Values' pane, showing the value 'IACIS-HDD-2014'.

Ans to the Q: No: 2

Current version of the windows:

The screenshot shows the Autopsy 4.21.0 interface. In the left sidebar, 'Operating System Information (1)' is selected under 'Metadata (64)'. The main pane displays a table of operating system information for 'Lab Image.E01'.

Source Name	S	C	O	Name	Program Name	Processor Architecture	Temporary Files Directory	Path	Product ID	Owner	Data Source
Lab Image.E01				IACIS-HDD-2014	Windows 7 Ultimate Service Pack 1	AMD64	%SystemRoot%\TEMP	C:\Windows	00426-292-0000007-85946	BillyBob	Lab Image.E01

Below the table, the 'Operating System Information' details are shown:

Type	Value	Source(s)
Name	IACIS-HDD-2014	Recent Activity
Program Name	Windows 7 Ultimate Service Pack 1	Recent Activity
Processor Architecture	AMD64	Recent Activity
Temporary Files Directory	%SystemRoot%\TEMP	Recent Activity
Path	C:\Windows	Recent Activity
Product ID	00426-292-0000007-85946	Recent Activity
Owner	BillyBob	Recent Activity
Source File Path	/img_Lab Image.E01	Recent Activity
Artifact ID	-9223372036854775447	

Or,

/img_Lab Image.E01/WINDOWS/system32/config/

SOFTWARE > Microsoft > Windows NT > CurrentVersion

The screenshot shows the Autopsy 4.21.0 interface. In the left sidebar, 'System32 (34)' is selected under 'inf (29)'. The main pane displays a table of files in the 'System32' directory. The 'SOFTWARE' file is selected, and its details are shown in the right pane.

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SECURITY.LOG2				2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SOFTWARE			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:10 BDT	48496640	Allocated	Allocated
SOFTWARE.LOG			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	1024	Allocated	Allocated
SOFTWARE.LOG1			1	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	262144	Allocated	Allocated
SOFTWARE.LOG1			1	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	262144	Unallocated	Unallocated
SOFTWARE.LOG2				2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SYSTEM			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	11796480	Allocated	Allocated

The details pane for 'CurrentVersion' is shown:

Name: CurrentVersion
Number of subkeys: 74
Number of values: 21
Modification Time: 2014-01-25 16:19:35 GMT+00:00

Name	Type	Value
CurrentVersion	REG_SZ	6.1
CurrentBuild	REG_SZ	7601
SoftwareType	REG_SZ	System
CurrentType	REG_SZ	Multiprocessor Free
InstallDate	REG_DWORD	0x52e31312 (1390613266)
RegisteredOrganization	REG_SZ	(value not set)
RegisteredOwner	REG_SZ	BillyBob
SystemRoot	REG_SZ	C:\Windows
InstallationType	REG_SZ	Client
ProductName	REG_SZ	Ultimate
ProductType	REG_SZ	Windows 7 Ultimate

Ans to the Q: No: 3

/img_Lab Image.E01/WINDOWS/system32/config/

SYSTEM > ControlSet001 > Control > TimeZoneInformation

Time Zone:

The screenshot shows the Autopsy 4.21.0 interface. On the left, the file system tree is expanded to 'Lab Image.E01 > Windows > system32 > config'. The center pane displays a table of files in the selected directory. The right pane shows the 'Metadata' for the selected file, 'TimeZoneInformation', which is a registry value of type 'REG_SZ' containing the string 'Eastern Standard Time'.

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SAMLOG1				2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	58368	Unallocated	Unallocated
SAMLOG2				2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SECURITY			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	262144	Allocated	Allocated
SECURITY.LOG			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	1024	Allocated	Allocated
SECURITY.LOG1			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	21904	Allocated	Allocated
SECURITY.LOG1				2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	21504	Unallocated	Unallocated

Metadata for TimeZoneInformation:

- Name: TimeZoneInformation
- Number of subkeys: 0
- Number of values: 10
- Modification Time: 2014-01-25 04:27:01 GMT+00:00

Name	Type	Value
Bias	REG_DWORD	0x0000012c (300)
DaylightBias	REG_DWORD	0xffffffff (4294967296)
DaylightName	REG_SZ	@tzres.dll,-111
DaylightStart	REG_BIN	00 00 03 00 02 00 02 00 00 00 00 00 00 00
StandardBias	REG_DWORD	0x00000000 (0)
StandardName	REG_SZ	@tzres.dll,-112
StandardStart	REG_BIN	00 00 08 00 01 00 02 00 00 00 00 00 00 00
TimeZoneKeyName	REG_SZ	Eastern Standard Time
DynamicDaylightTimeDisabled	REG_DWORD	0x00000000 (0)
ActiveTimeBias	REG_DWORD	0x0000012c (300)

Ans to the Q: No: 4

/img_Lab Image.E01/WINDOWS/system32/config/

SYSTEM\ControlSet001\Services\Tcpip\Parameters\Interfaces\{GUID}\

IP Address:

More:

Operating System:

/img_Lab Image.E01/WINDOWS/system32/config/

SOFTWARE > Microsoft > Windows NT > Current Version

The screenshot shows the Autopsy 4.21.0 interface. The file tree on the left highlights the path: `System32 (34) > config (51) > SOFTWARE (5) > Microsoft (4) > Windows NT (3) > CurrentVersion (1)`. The main pane displays a table of registry values for the `CurrentVersion` key. The table has columns: Name, S, C, O, Modified Time, Change Time, Access Time, Created Time, Size, Flags(Dir), and Flags(Meta). The values are:

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SECURITYLOG2			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SOFTWARELOG			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	48496640	Allocated	Allocated
SOFTWARELOG1			1	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	262144	Unallocated	Unallocated
SOFTWARELOG2			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	11796480	Allocated	Allocated
SYSTEM			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	11796480	Allocated	Allocated

The right pane shows the `CurrentVersion` key details. The `CurrentVersion` value is `6.1`. The `ProductVersion` value is `Windows 7 Ultimate`.

Installed Applications:

/img_Lab Image.E01/WINDOWS/system32/config/

SOFTWARE\Microsoft\Windows\CurrentVersion\App Paths

The screenshot shows the Autopsy 4.21.0 interface. The file tree on the left highlights the path: `System32 (34) > config (51) > SOFTWARE (5) > Microsoft (4) > Windows (3) > CurrentVersion (1) > App Paths (1)`. The main pane displays a table of registry values for the `App Paths` key. The table has columns: Name, S, C, O, Modified Time, Change Time, Access Time, Created Time, Size, Flags(Dir), and Flags(Meta). The values are:

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SECURITYLOG2			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	0	Allocated	Allocated
SOFTWARELOG			0	2015-05-26 19:05:11 BDT	2015-05-26 19:05:11 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	48496640	Allocated	Allocated

The right pane shows the `App Paths` key details. The `App Paths` value is `Windows`. The `App Paths` value is `Windows`. The `App Paths` value is `Windows`.

SAM (Security Accounts Manager):

/img_Lab Image.E01/WINDOWS/system32/config/

SAM/Domains/Account/Users/Names/

testy - Autopsy 4.21.0

Case View Tools Window Help

Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing

img_Lab Image.E01/Windows/System32/config

Table Thumbnail Summary

51 Results

Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)
SAM			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	262144	Allocated	Allocated
SAM.LOG			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	1024	Allocated	Allocated
SAM.LOG1			0	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	2015-05-26 19:05:10 BDT	58368	Allocated	Allocated
SAM.LOG1				2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	2015-05-26 18:52:41 BDT	58368	Unallocated	Unallocated
SAM.LOG1				2015-05-26 10:05:11 BDT	2015-05-26 10:05:11 BDT	2015-05-26 10:05:11 BDT	2015-05-26 10:05:11 BDT	0	Allocated	Allocated

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Metadata

Name: BillyBob

Number of subkeys: 0

Number of values: 1

Modification Time: 2014-01-25 01:27:34 GMT+0000

Name	Type	Value
(Default)	REG_BIN	

Recent documents: Search keyword > NTUSER.DAT

/img_Lab Image.E01/WINDOWS/system32/config/

NTUSER.DAT/Software/Microsoft/Windows/CurrentVersion/Explorer/RecentDocs/

testy - Autopsy 4.21.0

Case View Tools Window Help

Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing

Keyword search 2 - NTUSER.DAT

Keyword search

Table Thumbnail Summary

13 Results

Save Table as CSV

Name	Keyword Preview	Location	Modified Time	Change Time
ehRecObj.ini.dll	FileC:\Users\BillyBob\ntuser.dat+5-1-5-21-1171287513	/img_Lab Image.E01/SOrphanFiles/NativeImages_v2.0...	2015-05-26 18:47:28 BDT	2015-05-26 18:47:28 BDT
UsrClass.dat	rofiles\LocalService\ntuser.dat+mtmN+290IRTL...	/img_Lab Image.E01/USERS/Jimmy Wilson/AppData/L...	2015-05-26 18:46:16 BDT	2015-05-26 18:46:16 BDT
NTUSER.DAT	ntuser.dat+016888bd-6cf1-11de-8d1d-001e0bdc...	/img_Lab Image.E01/USERS/Jimmy Wilson/NTUSER.D...	2015-05-26 18:46:16 BDT	2015-05-26 18:46:16 BDT
NTUSER.DAT	ntuser.dat	/img_Lab Image.E01/USERS/Jimmy Wilson/NTUSER.DAT	2015-05-26 18:45:54 BDT	2015-05-26 18:45:54 BDT
ntuser.dat.LOG1	\Users\Jimmy Wilson\ntuser.dat+mtmDIRThbinCMI...	/img_Lab Image.E01/USERS/Jimmy Wilson/ntuser.dat...	2015-05-26 18:46:16 BDT	2015-05-26 18:46:16 BDT

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Metadata

Name: 0

Type: REG_BIN

Value

0x00 54 00 6F 00 20 00 57 00 68 00 6F 00 6D 00 20 00

0x10 69 00 74 00 20 00 6D 00 61 00 79 00 20 00 63 00

0x20 6F 00 6E 00 63 00 65 00 72 00 6E 00 2E 00 64 00

0x30 6F 00 63 00 00 00 8C 00 32 00 00 00 00 00 00

0x40 00 00 00 54 6F 20 57 68 6F 6D 20 69 74 20 6D

0x50 61 79 20 63 6F 6E 63 65 72 6E 2E 6C 6E 6B 00 00

0x60 62 00 08 00 04 00 EF BE 00 00 00 00 00 00 00 00

0x70 2A 00 00 00 00 00 00 00 00 00 00 00 00 00 00

0x80 00 00 00 00 00 00 00 00 00 00 54 00 6F 00 20 00

0x90 57 00 68 00 6F 00 6D 00 20 00 69 00 74 00 20 00

0xA0 6D 00 61 00 79 00 20 00 63 00 6F 00 6E 00 63 00

0xB0 65 00 72 00 6E 00 2E 00 6C 00 6E 00 6B 00 00 00

0xC0 2A 00 00 00 00

Position: 195 (0xc3)

To Whom it may concern...

Questions?

- BillyBob user account creation date?
- BillyBob last login time?
- Did BillyBob try to reset the password of the other user?

The location of the Event Logs:
WINDOWS\system32\winevt\Logs