

# Acme Case Study

By Group Marvel Knights



# Project Requirement Analysis

**Project Name:** Acme

**Agency:** Group Marvel Knights

**Project Sponsor:** Dr. Mahbubur Rahman

**Project Manager:** Ali Ustunkol

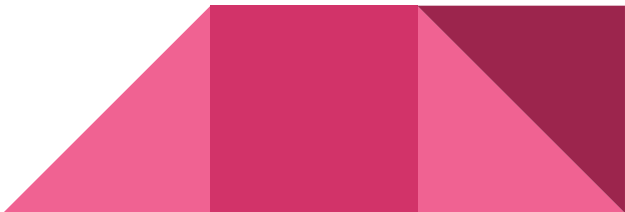
**Last Revision Date:** 12/09/2020

**Project Status:** Final

**Prepared By:** Group Marvel Knights

## **Project Scope:**

Autopsy Management Report is a digital forensic application used for managing Forensic report. Capture data, analyze, generate, and view report. Display analytic graph for data analysis.

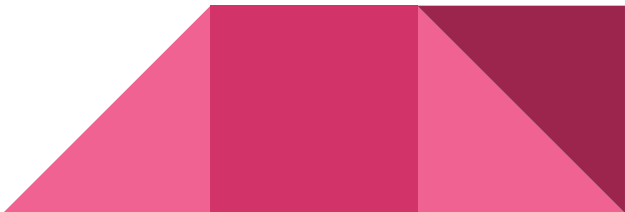
- Design the Autopsy report
  - Develop the application
  - Incorporate database search
  - Use data mining technique and analyze report
  - Generate and view report
  - Analytical representation of report using Charts and graphs.
- 

# Project Requirement Analysis

## 2. Functional Requirements:

- Must use Autopsy Forensic Tools.
- Common Functions
- GUI Functions
- Reporting Functions
- Interface Functions
- Batch Functions
- Security Functions
- Accessibility
- Encryption

## 3. Nonfunctional Requirements:

- Easy and well-designed user interface.
  - Should run on a desktop and laptop.
  - High quality code and good code documentation.
  - Data persistency.
  - In addition, at least 5 correct test cases should be provided.
- 

# Technologies used

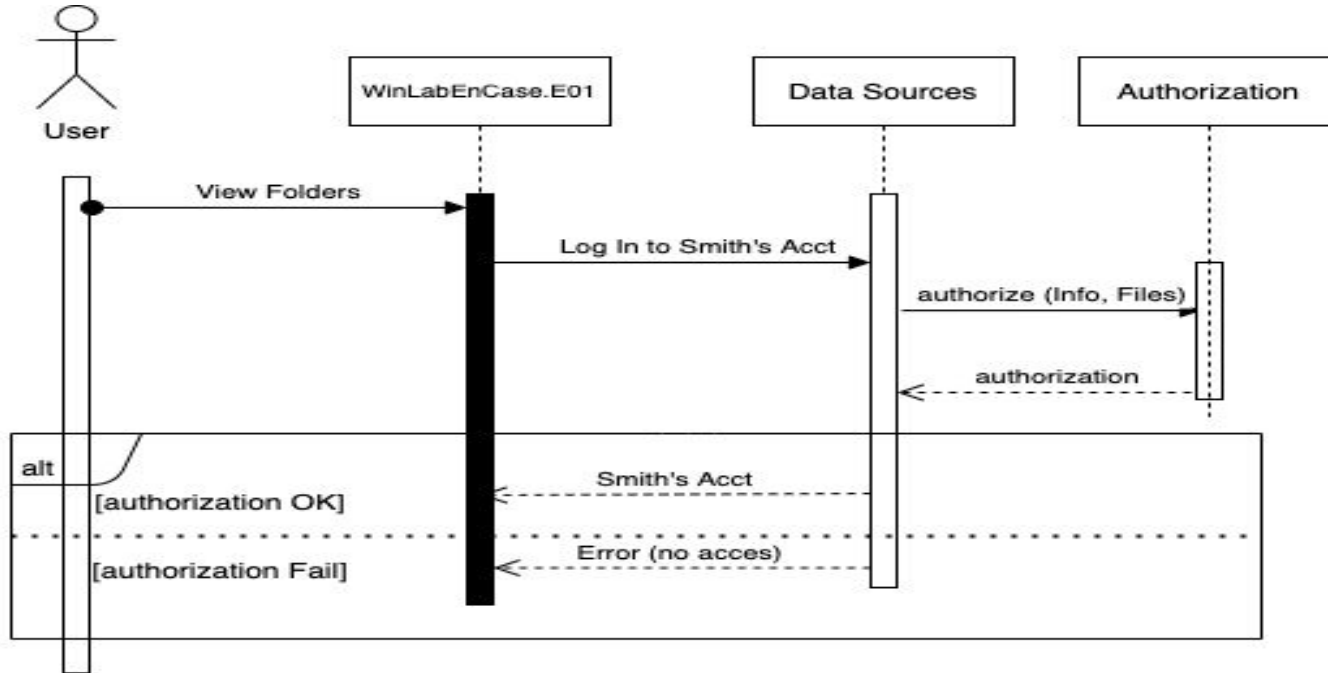
- Vue JS
- Node JS
- Mongo DB
- Eclipse IDE
- Docker for Deployment
- Jenkins for Testing



# Class Diagram



# Sequence Diagram



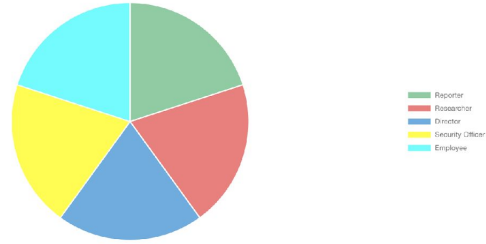
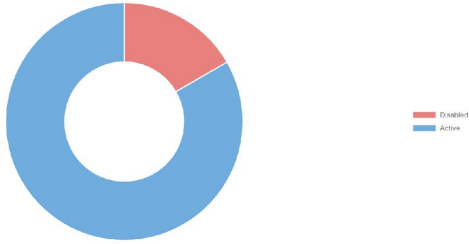
# Prototype display

Prototype Link: <https://stage.d25h2kqgbotyu8.amplifyapp.com>

ACME Industry - Autopsy Final Project

Project :

ACME Industry develops custom software for the aviation industry. Its main competitors are companies like Raytheon and Boeing, as well as a few smaller contractors. Pat Smith has worked for ACME Industry for five years. Pat's supervisor has noted that after being passed over several times for a promotion, Pat has become quite disgruntled. The company fears that Pat may be offering proprietary company information to a competitor in exchange for a job. An ExifCase image of Pat's computer's hard drive has been generated. Our job is to examine the image and extract all pertinent information to support or disprove the statement of Pat may be offering proprietary company information to a competitor in exchange for a job.



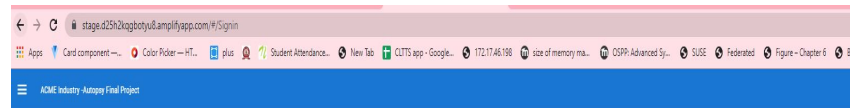
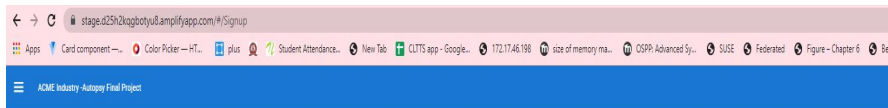
Search

Number	EmployeeID	Name	Email	Role	Status	View Report
1	234532	Narasimman Sridhar	nkeylor@gmail.com	Reporter	Active	<a href="#">View</a>
2	79723	Marina YALDIZ	wscn@na.edu	Researcher	Active	<a href="#">View</a>
3	097322	Ali Utunkol	zmeirampallyeva@na.edu	Director	Active	<a href="#">View</a>
4	35543	Erol Bilican	ErolBilican@na.edu	Security Officer	Active	<a href="#">View</a>
5	3242	Pat Smith	psmith@acme.com	Employee	Disabled	<a href="#">View</a>
6	234087	Ali Can Aydogdu	aydogdu@na.edu	Data Analyst	Manager	<a href="#">View</a>

Items per page: 5 1-6 of 6 < >

# Authentication – Integrated Security Features

- User authentication (User validation and admin profile)



Create User

Email

Password

Confirm Password

SIGN UP

Login

Email

Password







Forgot Password?

SIGN IN



# Report Information

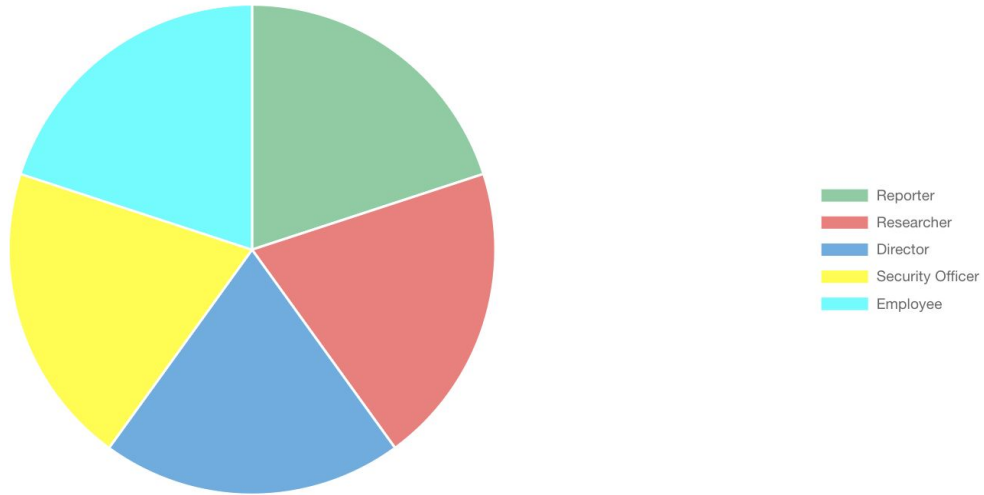
- Viewing all the reports, case manager can search by status (Name, Email, Role, Employee ID)

Search <input type="text" value="Search"/>						
Number	EmployeeID	Name	Email	Role	Status	View Report
1	234532	Narasimman Sridhar	mkeylor@gmail.com	Reporter	Active	 View
2	70123	Marina YALDIZ	wson@na.edu	Researcher	Active	 View
3	097322	Alii Ustunkol	zmeiramgaliyeva@na.edu	Director	Active	 View
4	36543	Erol Bilican	ErolBilican@na.edu	Security Officer	Active	 View
5	3242	Path Smith	psmith@acme.com	Employee	Disabled	 View
6	234087	Alii Can Aydogdu	aaydogdu@na.edu	Data Analyst	Manager	 View

Rows per page: 5 1-6 of 6 < >

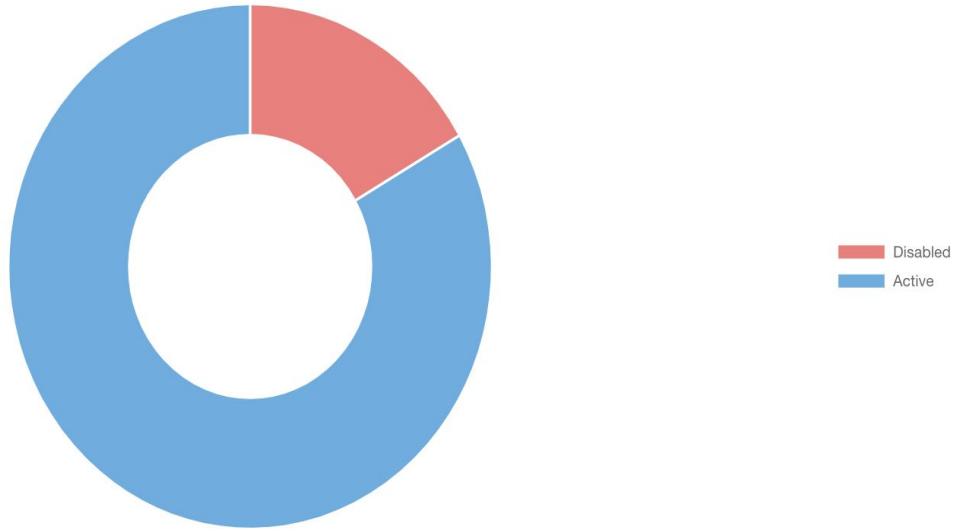
# Duty Chart

- Analytical graph data which gives a picture of all the duties



# Active Report Chart

Active Report Chart shows active and inactive reports.



# Autopsy Reports

- The Screenshots of Autopsy reports that we worked on.

Data Sources

WinLabCase.E01

- ScannedFiles (0)
- ScannedFiles (0)
- Skinalloc (1)
- \_S74699.tmp (0)
- Documents and Settings (3)
- Program Files (2)
- Recycled (7)
- System Volume Information (3)
- WINDOWS (3)

Views

- File Types
- Deleted Files
- MB File Size

Table: Thumbnail

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	F
✓ R000000.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	14424	U
✓ R0000000.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	14424	U
✓ R0000029.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	7668	U
✓ R0000029.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	7668	U
✓ R0000044.pdf	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	88231	U
✓ R0000044.pdf	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	88231	U
✓ R0000218.Desktop.ini	2	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	65	U
✓ R0000218.Desktop.ini	2	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	65	U

Data Sources

WinLabCase.E01

- ScannedFiles (0)
- ScannedFiles (0)
- Skinalloc (1)
- \_S74699.tmp (0)
- Documents and Settings (3)
- Program Files (2)
- Recycled (7)
- System Volume Information (3)
- WINDOWS (3)

Views

- File Types
- Deleted Files
- MB File Size
- Results
- Tags
- Reports

Table: Thumbnail

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dr)	Flags(Meta)	Known	Location
✓ R0000044.pdf	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	88231	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000044.pdf
✓ R0000044.pdf	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	88231	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000044.pdf
✓ _esktop.ini	2	2004-03-15 21:43:00 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-15 21:42:59 EST	65	Unallocated	Unallocated	unknown	img_WinLabCase.E01\Recycled\_esktop.ini
✓ R0000218.Desktop.ini	2	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	65	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000218.Desktop.ini
✓ R0000218.Desktop.ini	2	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	65	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000218.Desktop.ini
✓ R0000000.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	14424	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000000.gif
✓ R0000029.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	7668	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000029.gif
✓ R0000000.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	14424	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000000.gif
✓ R0000029.gif	1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	7668	Unallocated	Unallocated	unknown	img_WinLabCase.E01\ScannedFiles\R0000029.gif
✓ Raytheon		2004-03-09 11:38:52 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-09 11:38:50 EST	0	Unallocated	Unallocated	unknown	img_WinLabCase.E01\Documents and Settings\joshi\...
✓ Boag		2004-03-09 11:38:52 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-09 11:38:50 EST	0	Unallocated	Unallocated	unknown	img_WinLabCase.E01\Documents and Settings\joshi\...
✓ _S74699.tmp		2004-03-15 21:42:10 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-15 21:42:09 EST	512	Unallocated	Unallocated	unknown	img_WinLabCase.E01\_S74699.tmp
✓ _P62		2004-03-15 21:42:12 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-15 21:42:10 EST	0	Unallocated	Unallocated	unknown	img_WinLabCase.E01\System Volume Information\_res...
✓ Del		2004-03-09 11:38:52 EST	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	2004-03-09 11:38:50 EST	0	Unallocated	Unallocated	unknown	img_WinLabCase.E01\Recycled\Del

# Autopsy Reports

Table: Thumbnail

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size
Desktop.ini	1			2004-01-23 11:57:56 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	122
Find a Job.url	1			2004-01-23 12:16:50 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	220
Links	1			2004-03-09 11:39:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	512
MSN.com.url	1			2004-01-23 11:58:00 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	119
Monster - Today's the day - provided by Monster.url	1			2004-01-23 12:15:54 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	182
Radio Station Guide.url	1			2004-01-23 11:58:00 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	197
[current folder]				2004-03-09 11:39:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	1024
[parent folder]				2004-03-09 11:38:50 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:38:49 EST	1536

File Name Allocation: Allocated  
File Name: Desktop.ini  
File Type: Desktop.ini  
File Size: 122  
Modified: 2004-01-24 21:37:46 EST  
Created: 2004-03-09 11:58:50 EST  
Changed: 2004-03-09 11:58:50 EST  
Hash: SHA1: 00000000000000000000000000000000  
Hash Linkage Results: SHA1: 00000000000000000000000000000000  
Internal ID: 120  
From The Grounds Of: Xerox  
Security: 0000  
Permissions: File, Archive  
Owner: 0000  
Group: 0000

Data Sources

- WinLabCase.E01
  - \$OrphanFiles (0)
  - \$CarvedFiles (8)
  - \$Jhaloc (1)
  - .\_S174699.tmp (0)
  - Documents and Settings (3)
    - pm01th (18)
      - Application Data (7)
      - Cookies (11)
      - Desktop (2)
      - Favorites (10)
      - Links (6)
      - Local Settings (7)
      - My Documents (13)
      - Nethood (2)
      - Printhood (2)
      - Recent (11)
      - SendTo (7)

Table: Thumbnail

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size
Aerospace Technology - Contractors A to Z.url	1			2004-01-23 12:18:34 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	200
Aviation Jobs and Aviation employees 35firm.url	1			2004-01-23 12:15:36 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	162
Desktop.ini	1			2004-01-23 11:57:56 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	122
Find a Job.url	1			2004-01-23 12:16:50 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	220
Links	1			2004-03-09 11:39:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	512
MSN.com.url	1			2004-01-23 11:58:00 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	119
Monster - Today's the day - provided by Monster.url	1			2004-01-23 12:15:54 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	182
Radio Station Guide.url	1			2004-01-23 11:58:00 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	197
[current folder]				2004-03-09 11:39:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	1024
[parent folder]				2004-03-09 11:38:50 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:38:49 EST	1536

Data Sources

- WinLabCase.E01
  - \$OrphanFiles (0)
  - \$CarvedFiles (8)
  - \$Jhaloc (1)
  - .\_S174699.tmp (0)
  - Documents and Settings (3)
    - pm01th (18)
      - Application Data (7)
      - Cookies (11)
      - Desktop (2)
      - Favorites (10)
      - Links (6)
      - Local Settings (7)
      - My Documents (13)
      - Nethood (2)
      - Printhood (2)
      - Recent (11)
      - SendTo (7)
      - Start Menu (4)
      - Templates (14)

Table: Thumbnail

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)	Known
[current folder]				2004-03-09 11:39:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	1024	Allocated	Allocated	unknown
[parent folder]				2004-03-09 11:38:50 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:38:49 EST	1536	Allocated	Allocated	unknown
index.dat		1		2004-03-09 08:30:04 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	32768	Allocated	Allocated	unknown
pm01th@bads.monster[1].txt	1			2004-01-23 12:08:18 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	99	Allocated	Allocated	unknown
pm01th@cookie.monster[1].txt	1			2004-01-23 12:08:20 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	110	Allocated	Allocated	unknown
pm01th@google[1].txt	1			2004-01-23 12:12:46 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	130	Allocated	Allocated	unknown
pm01th@monster[1].txt	1			2004-01-23 12:15:42 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	264	Allocated	Allocated	unknown
pm01th@msn[1].txt	1			2004-01-23 12:08:02 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	230	Allocated	Allocated	unknown
pm01th@pjb6.mmx.scd.yahoo[1].txt	1			2004-01-23 12:16:24 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	95	Allocated	Allocated	unknown
pm01th@www.monster[1].txt	1			2004-01-23 12:08:18 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	72	Allocated	Allocated	unknown
pm01th@www.rayjobs[2].txt	1			2004-01-23 12:11:10 EST	0000-00-00 00:00:00	2004-03-09 00:00:00 EST	2004-03-09 11:39:01 EST	158	Allocated	Allocated	unknown