



D. B. J. COLLEGE, CHIPLUN
DEPARTMENT OF COMPUTER SCIENCE

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Title of Experiment : Recovering and inspecting deleted files

Date _____

Sub titles : Assignment/ Problem Solution, Flow chart/Algorithm, Problem Listing,
Input Screen, Output Screen, Comments (If any)

Aim :- Recovering and inspecting deleted files :
- Check for deleted files.
- Analyzing and inspecting the recovered files perform the using recovery option in Encase and perform manually through command line.

SW/HW Requirement :- FTK imager, computer, printer.

Theory :-

Types of attempts in destroying files.

Modern computer hard drives contain an assortment of data including an operating system application of programs and user data stored in files. Drives also contain backing store of memory and OS meta information such as directory files, attributes and allocation to beets drivers includes directory blocks startup of S/W.

Remark _____

Signature _____

Level	Where Found	Description
Level 0	Regular Files	Info. contained in the file system. Includes a file name, the attributes and file contents one can directly access system.
Level 1	Temporary Files	Temporary files include print spooler, browser cache files, helper and recycle bin files.
Level 2	Deleted Files	When a file is deleted from a file system, most OS do not overwrite the blocks on the hard disk. The file most directory, Norton utilities.
Level 3	Retained data blocks	Data that can be recovered from a disk but which does not obviously belong to named file. Level 3 data include info. in slack space, backing tools level 3.
Level 4	Vendor hidden blocks	This level consists of data blocks that can only be accessed using vendor specific commands. This level and blocks management.

Level 5	Overwritten data	Many individuals maintain that information can be recovered from a hard drive even after, it overwritten we reserve 5 level info.
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Technique to Recover -

The tools technique and methodology of electronic gathering and analysis have been tried and proven and are accepted in many countries through out the investigation.

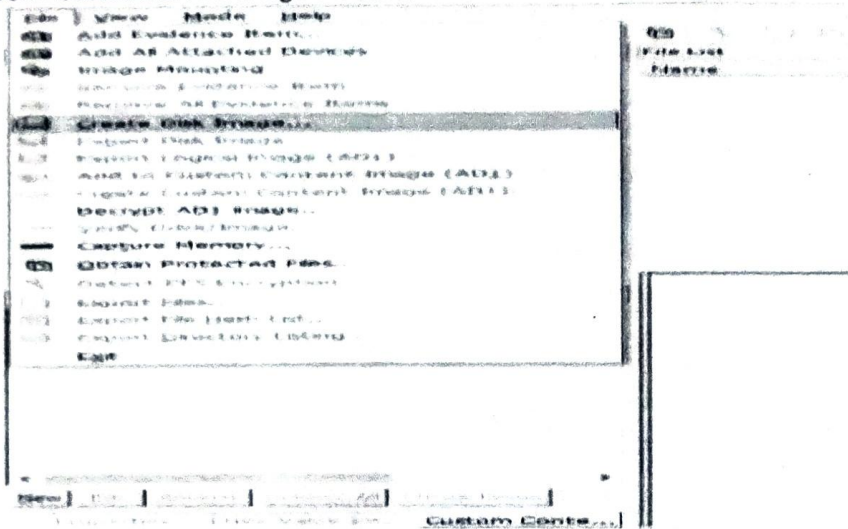
Tools	Platform	Nature
Drives	DOS/Windows	Inspect stack space and deleted file metadata.
Forensic toolkit	Windows	Graphic search and preview of forensic info & of including searches for JPEG images and internet text.
Illook	Window	Handles dozens of files system to available to us government agencies.
Norton utilities	Window	Handles dozens of file system explorer interface to deleted files generates law agencies.

Conclusion :-

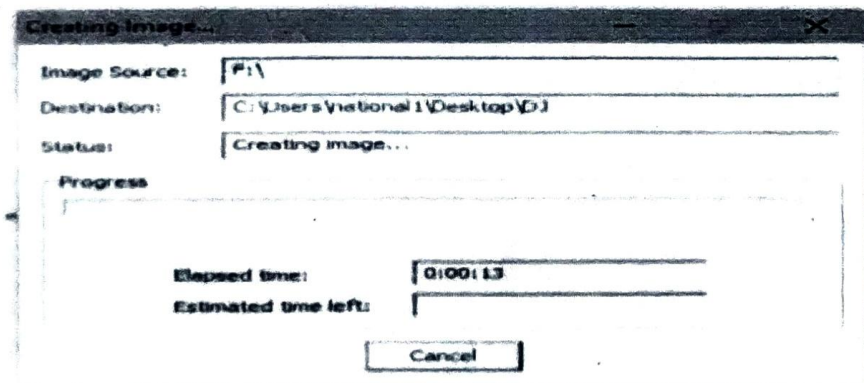
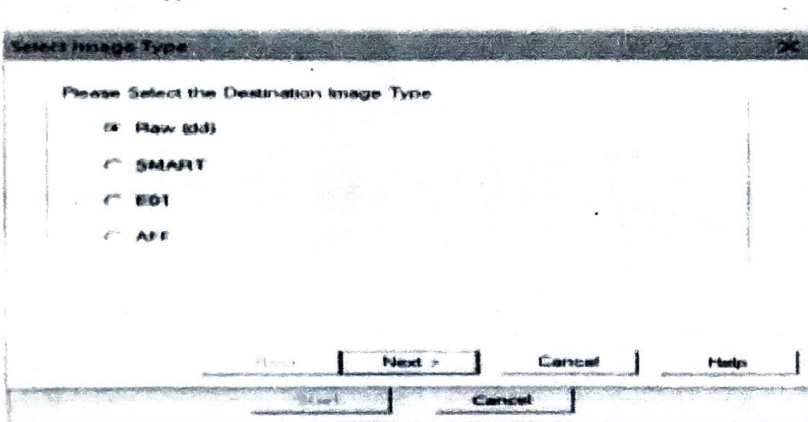
We recovered deleted files using Access data FTK imager.

Practical 6

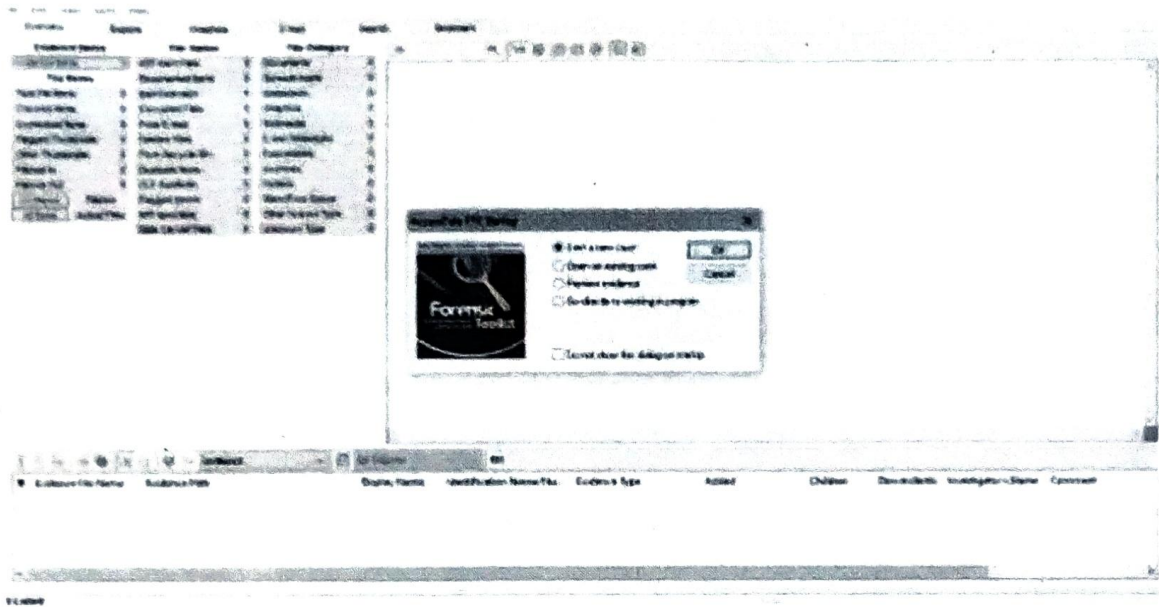
1. Open AccessData FTK Imager. Click on File > Create Disk Image



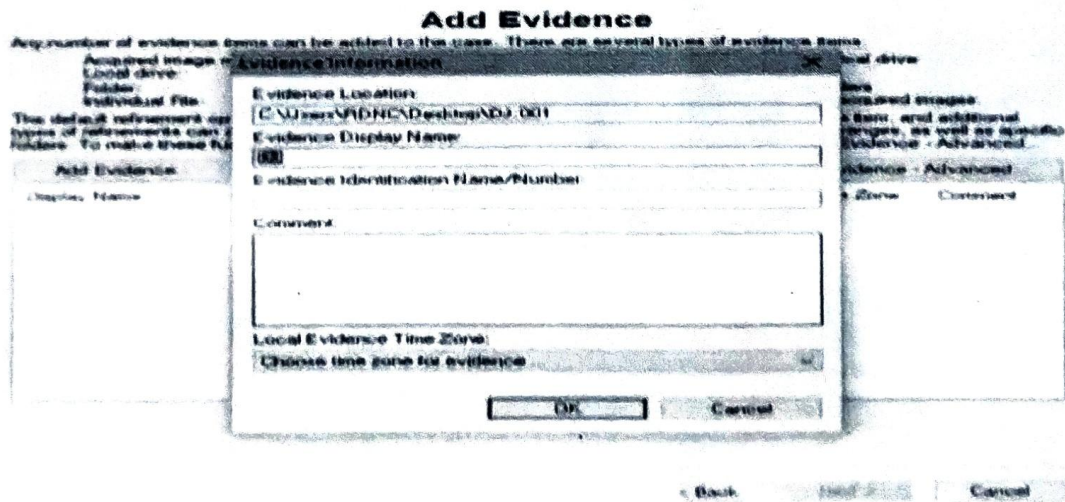
1. Creates a new disk image
2. Type the destination path.
3. Click on Logical drive.
4. Click on Add > Browse
5. Select the type of data format and click next



6. Open the Forensic toolkit and click on file > new case



7. Enter the details and click on next
8. Click on next
9. Click on next
10. Click on next
11. Click on Add Evidence > Acquired Image of Drive > Continue
12. Select the image file
13. Click on OK



14. Click on next
15. Click on Finish
16. Files are being carving.
17. In the left panel you can see all the recovered files.
18. Click on the Deleted file tab-> Right click on any deleted file to export it

Overview	Explore	Graphics	E-Stat	Search	Bookmarks
Evidence Items					
Evidence Items	4	KFF Alert Files	0	Documents	5830
File Items		Bookmarked Items	0	Spreadsheets	0
Total File Items	5000	Bad Extension	38	Databases	0
Checked Items	0	Encrypted Files	0	Graphics	608
Unchecked Items	5000	From E-mail	0	Multimedia	4
Flagged Thumbnails	0	Deleted Files	154	Email Messages	0
Other Thumbnails	500	From Recycle Bin	0	Executables	0
Filtered In	5000	Duplicate Items	2156	Archives	1
Filtered Out	0	OLE Subitems	80	Folders	33
Unfiltered	Filtered	Flagged Ignored	0	Search-Free Source	280
All Items	Actual Files	KFF Ignorable	0	Other Known Type	27
		Data Carved Files	0	Unknown Type	217

Cursor position = 0: c

File Edit View Tools Help

Overview Create Bookmark... Search Bookmarks

Evidence View This Item in a Different List

Evidence Items ignore Item

File Item Set as Primary Duplicate

Total File Items Launch Detached View

Checked Items Launch Associated Program

Unchecked Item View With...

Flagged Thumbnail View File Sector...

Other Thumbnail Find on disk...

Filtered In Copy Special...

Filtered Out Export File...

Recursive File Export...

File Name Analysis Tools

TC9777 Column Settings

TC9777 File Properties...

Category	Subject	Date	Mod Date
Unknown		20-12-2018 09:23:11	21-12-2018 09:30:22
Unknown		20-12-2018 09:23:11	21-12-2018 09:44:27
Graphic		15-12-2018 02:27:59	15-12-2018 02:47:02
Document		15-12-2018 02:27:59	15-12-2018 02:47:02
Unknown		08-12-2018 09:05:36	08-12-2018 09:05:36
Unknown		08-12-2018 09:05:36	08-12-2018 09:05:36
File Item		08-12-2018 09:05:36	08-12-2018 09:05:36

19. Browse and choose the destination folder to export the deleted file

