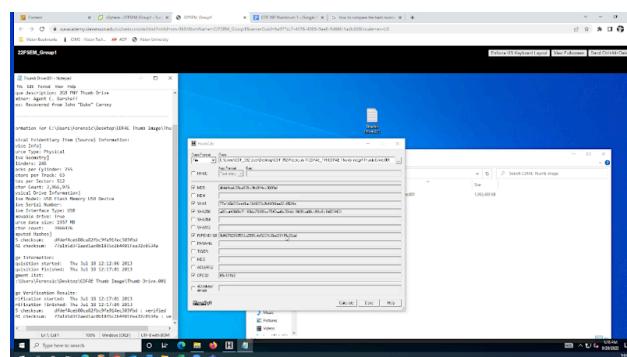
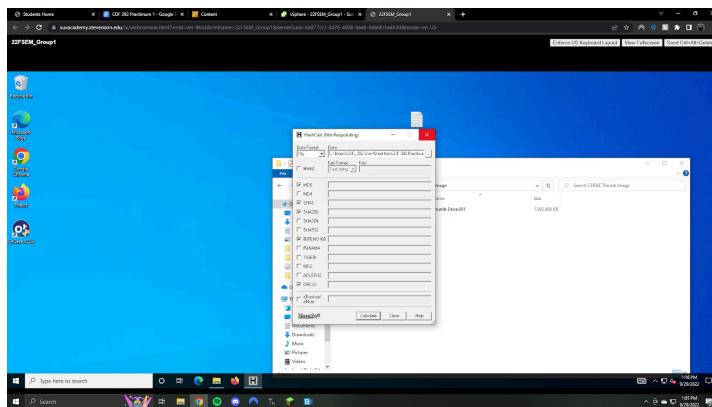


Matthew Sponaugle
Iyadunni Adegbeye
Keziah Rogers

Practicum 1 Exercises

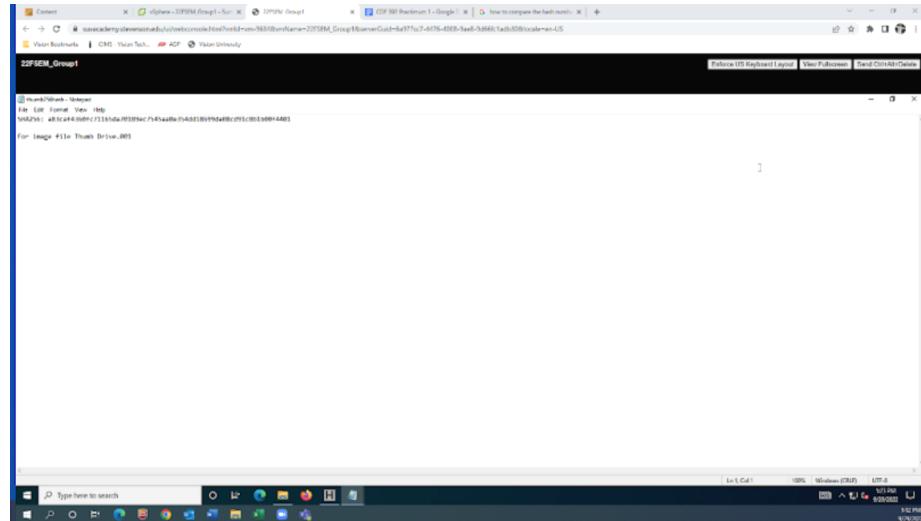
Team Tasks and Questions:

- Compare the hash number of the project hard disk image with the enclosed imaging report
 - 1) First, we opened the CDF 392 Practicum folder
 - 2) We then clicked the CDFAE Thumb Image folder
 - 3) Then we clicked the original image file (Thumb Drive.001) and opened Hash Calc
 - 4) After, we clicked the three dots by data and opened the Thumb Drive.001 drive.
 - 5) We clicked SHA-256 and calculated the hash.

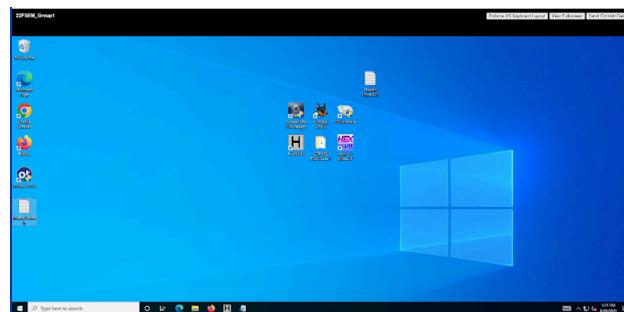


(They are the same)

- Create a SHA 2 hash value for the image file.

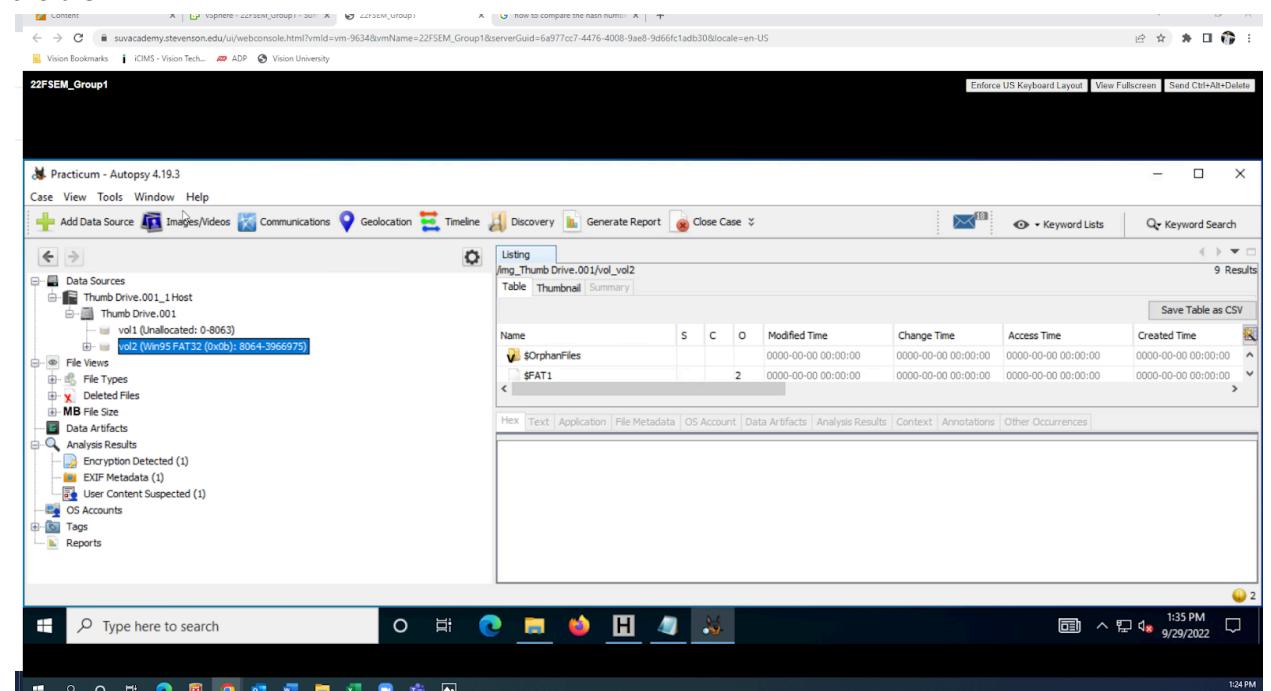


- Download all additional software including the additional file image file.



- Install by of each software packaging by it running on the VM.
 -
- What OS and version are on the disk? (When was it installed?)
- **Windows 95 which contains MS DOS 5.0. The file system is FAT 32. We could not find the exact date when it was installed, because there is no registry hives or Master File Table on**

the disk.



Autopsy - 22FSEM_Group1 - Sun 10/4/2022 10:59 PM

Students Home Microsoft Office Home Mail - Matthew Franklin Spona CDF 392 Practicum 1 - Google Content

Enforce US Keyboard Layout View Fullscreen Send Ctrl+Alt+Delete

22FSEM_Group1

Autopsy - Autopsy 4.19.3

Case View Tools Window Help

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

Data Sources

- Thumb Drive.001_1 Host
- Thumb Drive.001
 - vol (Unallocated - 8.06G)
 - vol (Unallocated FAT32 (0x00): 8054-3966975)
 - 4ChkFileExt (0)
 - 4ChkFileExt (2)
 - Examples.ap (1)
 - Funds (9)

File Viewer

File Types

- By Extension
- Images (5)
- Videos (0)
- Audio (0)
- Archives (1)
- Documents (1)
- Executable (.exe (0))
- application (.zip (1))
- octet-stream (1)
- password (1)
- x-marcfile (1)
- Imports

 - bmp (1)
 - jpeg (4)
 - png (4)

- Deleted Files

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

MSDOS.0 INP-INO NAME FAT32.3

Page 1 of 1 Page Go to Page: 1 Jump to Offset Launch in HD

Access Time Created Time Size Flag(Dir) Flag(Meta) Known MD5 Hash

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown 2da93f6aa79edfa3a3672987cbff71 e44a3165d0

0000-00-00 00:00:00 1975808 Allocated Allocated unknown 2da93f6aa79edfa3a3672987cbff71 e44a3165d0

0000-00-00 00:00:00 0000-00-00 00:00:00 512 Allocated Allocated unknown f65721962c5367e8262e20598f337ab 9abd88d5

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown d418c99f05b32e04e90099e6f4047e e360e44296

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown 8b02119457c6309beda402972a02 4801d0c6

2013-07-10 00:00:00 EDT 2013-07-10 07:47:35 EDT 761140 Allocated Allocated unknown 79f27ee88ebdd4a365531e362f84 74f03d6d62

2013-07-10 00:00:00 EDT 2013-07-10 07:46:44 EDT 3321432 Allocated Allocated unknown 79f27ee88ebdd4a365531e362f84 74f03d6d62

2013-07-10 00:00:00 EDT 2013-07-10 07:47:46 EDT 8108736 Allocated Allocated unknown f6af362909813ba5ca05010b09605 4f361a94c0

Text Source: File Text

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

MSDOS.0 INP-INO NAME FAT32.3

Page 1 of 1 Page Go to Page: 1 Matches on page: - of - Match 100% ⌂ Reset

Type here to search

Windows Taskbar

10:59 PM 10/4/2022

Autopsy - 22FSEM_Group1 - Sun 10/4/2022 10:59 PM

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Enforce US Keyboard Layout View Fullscreen Send Ctrl+Alt+Delete

22FSEM_Group1

Autopsy - Autopsy 4.19.3

Case View Tools Window Help

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

Data Sources

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 - vol (Unallocated - 8.06G)
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 - 4ChkFileExt (0)
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 - Examples.ap (1)
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File Viewer

File Types

- By Extension
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- Executable (.exe (0))
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- octet-stream (1)
- password (1)
- x-marcfile (1)
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 - bmp (1)
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 - png (4)

- Deleted Files

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

MSDOS.0 INP-INO NAME FAT32.3

Page 1 of 1 Page Go to Page: 1 Jump to Offset Launch in HD

Access Time Created Time Size Flag(Dir) Flag(Meta) Known MD5 Hash

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown 2da93f6aa79edfa3a3672987cbff71 e44a3165d0

0000-00-00 00:00:00 1975808 Allocated Allocated unknown 2da93f6aa79edfa3a3672987cbff71 e44a3165d0

0000-00-00 00:00:00 0000-00-00 00:00:00 512 Allocated Allocated unknown f65721962c5367e8262e20598f337ab 9abd88d5

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown d418c99f05b32e04e90099e6f4047e e360e44296

0000-00-00 00:00:00 0000-00-00 00:00:00 0 Allocated Allocated unknown 8b02119457c6309beda402972a02 4801d0c6

2013-07-10 00:00:00 EDT 2013-07-10 07:47:35 EDT 761140 Allocated Allocated unknown 79f27ee88ebdd4a365531e362f84 74f03d6d62

2013-07-10 00:00:00 EDT 2013-07-10 07:46:44 EDT 3321432 Allocated Allocated unknown 79f27ee88ebdd4a365531e362f84 74f03d6d62

2013-07-10 00:00:00 EDT 2013-07-10 07:47:46 EDT 8108736 Allocated Allocated unknown f6af362909813ba5ca05010b09605 4f361a94c0

Text Source: File Text

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

MSDOS.0 INP-INO NAME FAT32.3

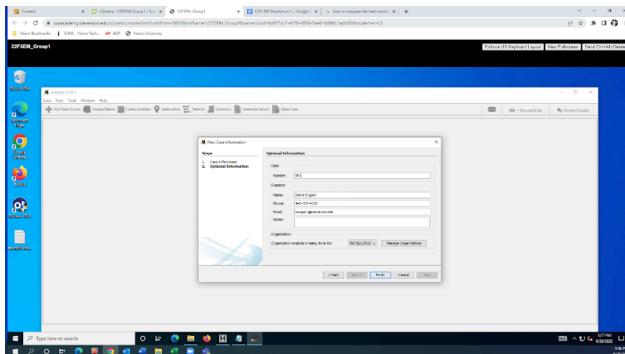
Page 1 of 1 Page Go to Page: 1 Matches on page: - of - Match 100% ⌂ Reset

Type here to search

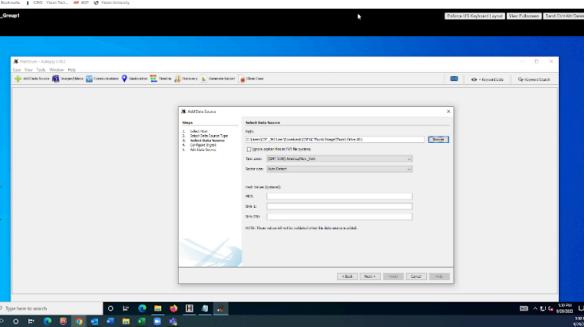
Windows Taskbar

10:59 PM 10/4/2022

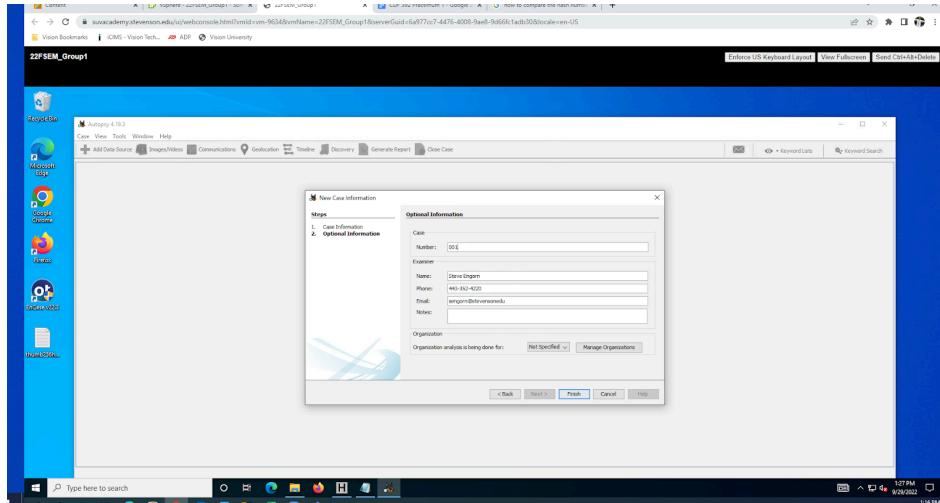
- 1) We opened Autopsy
- 2) New case information window



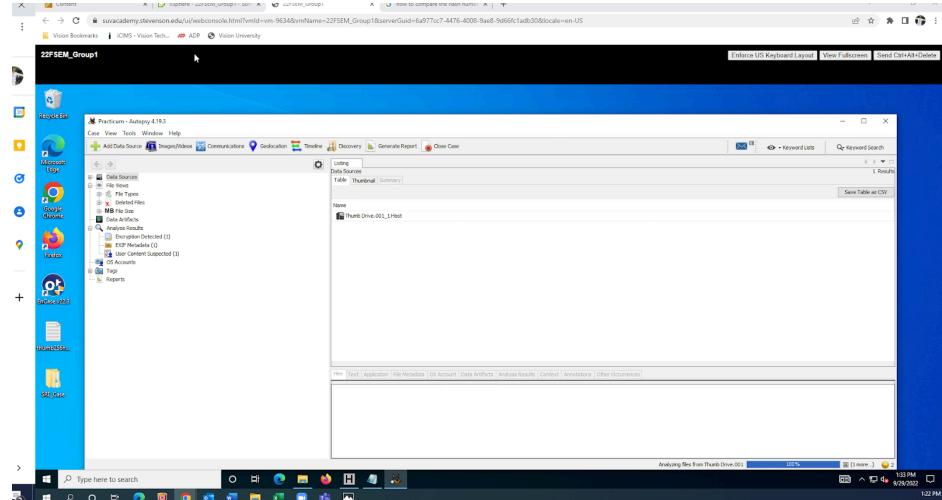
- o 3)
- o 4) The case could not be created at first due to not saving in a valid location
- o 5) We selected the host, disk image, and the data source is the thumb drive.



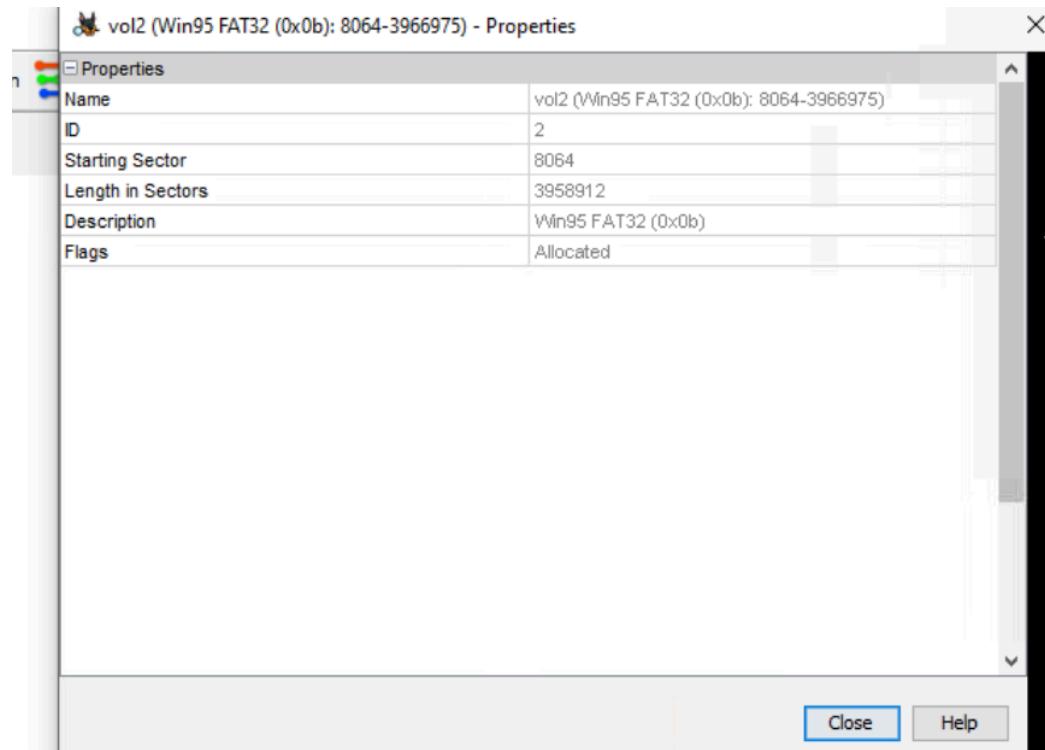
- o

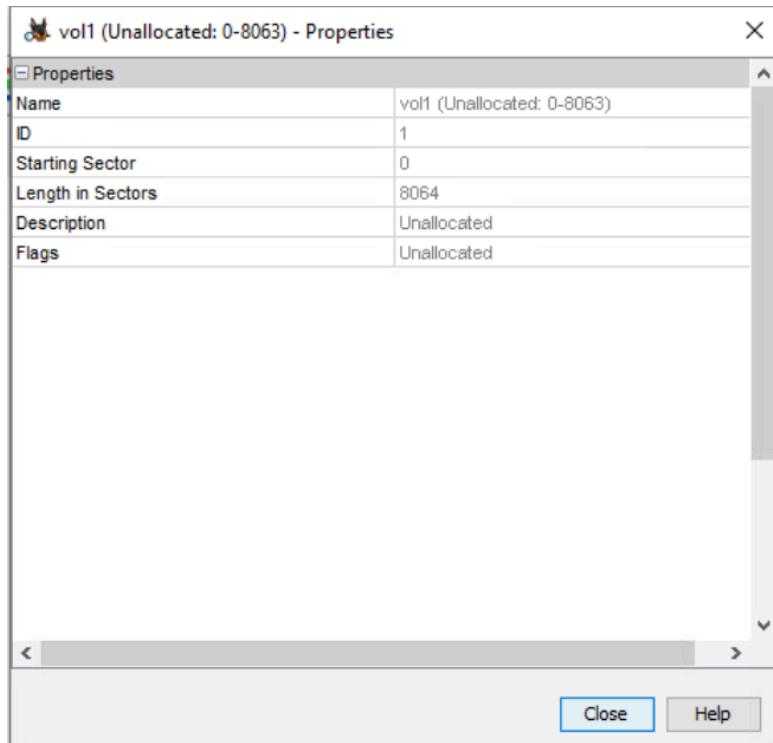


- Data source was added successfully-

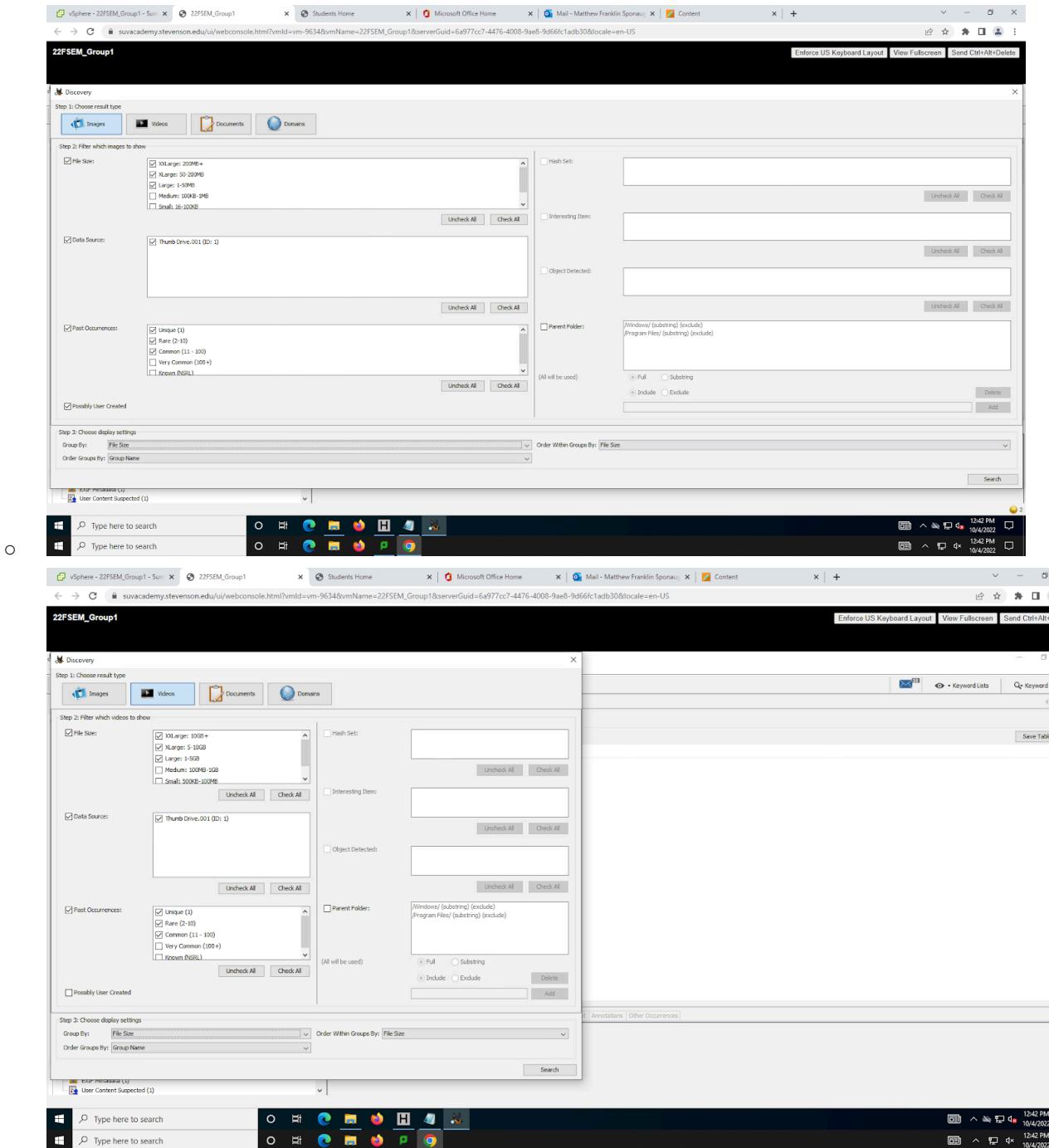


-
- Can you identify how many volumes are on the disk? (Include sector information)
 - **2 volumes are on the disk.**





- **Unallocated-**
- How many files larger than one gig are there on the disk? (What are their names?)
 - None, no files appear larger than 8mb



vSphere - 22FSEM_Group1 - Summary **22FSEM_Group1** **Students Home** **Microsoft Office Home** **Mail - Matthew Franklin Spons...** **Content**

Enforce US Keyboard Layout View Fullscreen Send Ctrl+Alt+Delete

Discovery

Step 1: Choose result type

Images Videos Documents Domains

Step 2: Filter which documents to show

File Size: XXLarge: 200MB+ XLarge: 50-200MB Large: 1-50MB Medium: 100KB-1MB Small: 16-100KB

Data Sources: Thumb Drive.001 (D: 1)

Past Occurrences: Unique (1) Rare (2-10) Common (11 - 100) Very Common (100+) Known (URL)

Step 3: Choose display settings

Group By: File Size Order Within Groups By: File Size

Order Groups By: Group Name

Annotations Other Occurrences

Search

12:42 PM 10/4/2022 12:42 PM 10/4/2022

22FSEM_Group1

Discovery Editor

Results with Type: Image; Size(s): XXLarge, XLarge, Large; Data source(s): Thumb Drive.001 (1); Past occurrences: Unique (1), Rare (2-10), Common (11 - 100); that contain EXIF data

New Search

Groups: Large: 1-50MB (1)

Page: 1 of 1 Pages: Go to Page: Page Size: 100

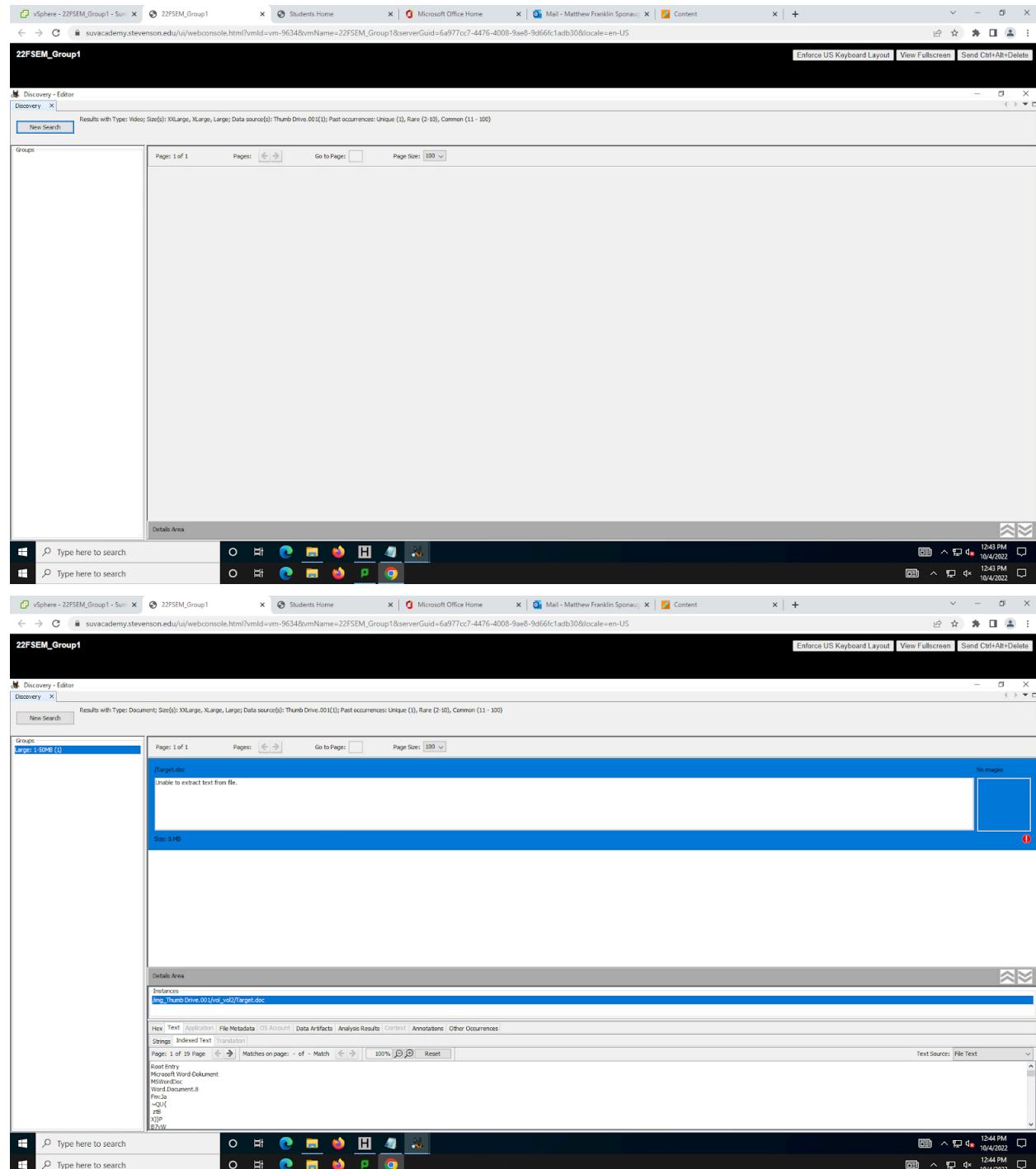
Details Area

Instances: Eng_Thumb Drive.001\vol_v0\Hecon_1.JPG

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

0% C 9% ↻ Reset

12:43 PM 10/4/2022 12:43 PM 10/4/2022



- How many files that possess EXIF data are on the disk? (please identify)
 - Only 1 file which is recon1.jpg.

Two screenshots of the Autopsy 4.19.3 forensic analysis tool interface are shown side-by-side.

Screenshot 1 (Top):

- Case:** 22FSEM_Group1
- Source:** vSphere - 22FSEM_Group1 - Sun
- Analysis Results:**
 - Encryption Detected (1)
 - DFP Metadata (1)
 - User Content Suspected (1)
- OS Accounts:** None
- Tags:** None
- Reports:** None

The main pane displays a file listing for 'recn_1.JPG' under the 'DFP Metadata' category. The table shows the following details:

Source Name	S	C	O	Source Type	Score	Conclusion	Configuration	Date Created	Device Model	Device Make	File Path	Size	Path
recn_1.JPG	1			File	Not Notable			2012-04-16 16:25:52 EDT	Canon EOS DIGITAL REBEL XT	Canon	\Img_Thumb Drive.001\vol_vo2\recn_1.JPG	3321432	

Screenshot 2 (Bottom):

- Case:** 22FSEM_Group1
- Source:** vSphere - 22FSEM_Group1 - Sun
- Analysis Results:** None
- OS Accounts:** None
- Tags:** None
- Reports:** None

The main pane displays a file listing for 'recn_1.JPG' under the 'File Metadata' category. The table shows the following details:

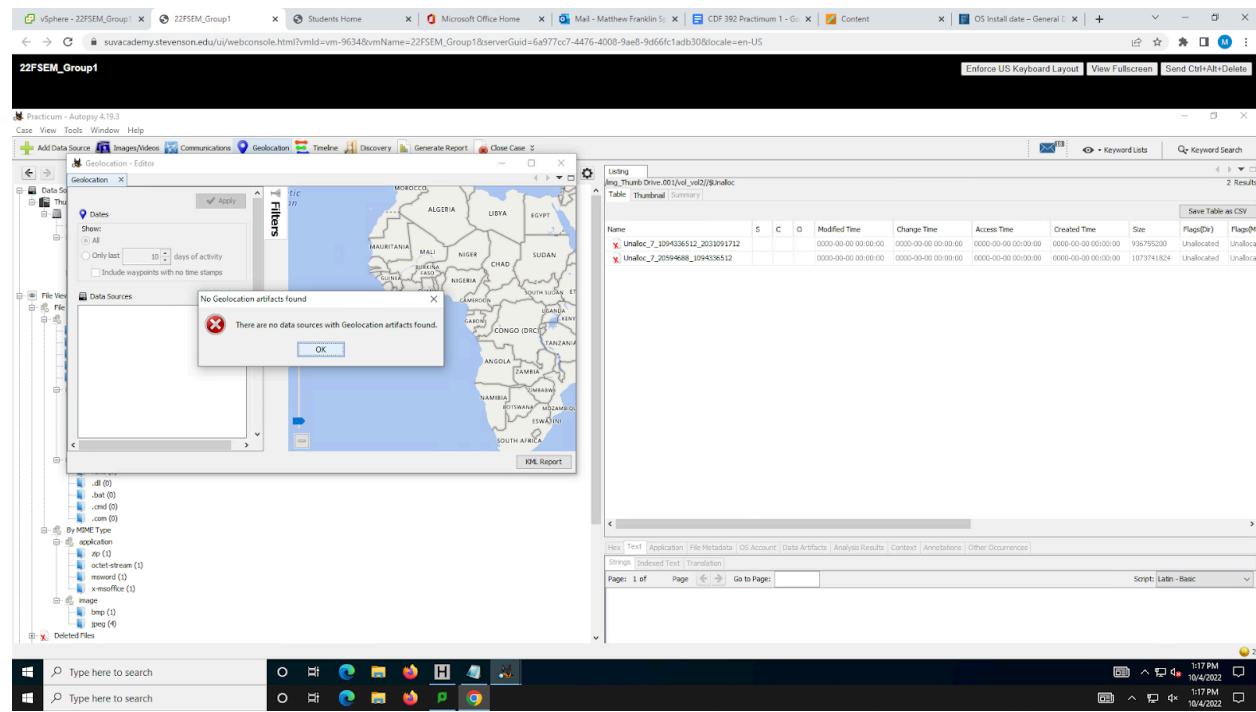
Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(DP)	Flags(Meta)	Known	MDS Hash	SHA-256 Hash
OrphanFiles				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown	2da93fcaaa78ec9fa3672987ccbf971	e44a31050
IAF1	2			0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	1979308	Allocated	Allocated	unknown	2da93fcaaa78ec9fa3672987ccbf971	e44a31050
IAF2	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	1979308	Allocated	Allocated	unknown	2da93fcaaa78ec9fa3672987ccbf971	e44a31050
IMBR	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	512	Allocated	Allocated	unknown	f657218fc2f3657eb02e2e598f837ab	9abd8cf0
Rinalec				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown	4148d0ff080b20e490095ee6ed942d	e350c429
DUNE (Volume Label Entry)				2013-07-08 12:21:22 EDT	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown	18002191657c109b0cadac029672a02	4b801c03
Examples.zip	1			2013-07-10 07:43:12 EDT	0000-00-00 00:00:00	2013-07-10 00:00:00 EDT	2013-07-10 07:47:35 EDT	761140	Allocated	Allocated	unknown	18002191657c109b0cadac029672a02	e350c429
recn_1.JPG	1			2012-04-16 14:25:52 EDT	0000-00-00 00:00:00	2013-07-10 00:00:00 EDT	2013-07-10 07:46:44 EDT	3321432	Allocated	Allocated	unknown	7fb27eae86bd544a3be5531ea3507f84	74033ed8
Target.doc	1			2013-07-09 13:30:18 EDT	0000-00-00 00:00:00	2013-07-10 00:00:00 EDT	2013-07-10 07:47:16 EDT	8100736	Allocated	Allocated	unknown	f6a1f36c2900981b3a5c0a501bd8605	a361ab94

- What version of Adobe Flash Player is installed?

There is no version of Adobe Flash Player installed. An easy way to tell is there are no executable files present on the disk, which Adobe Flash Player is.

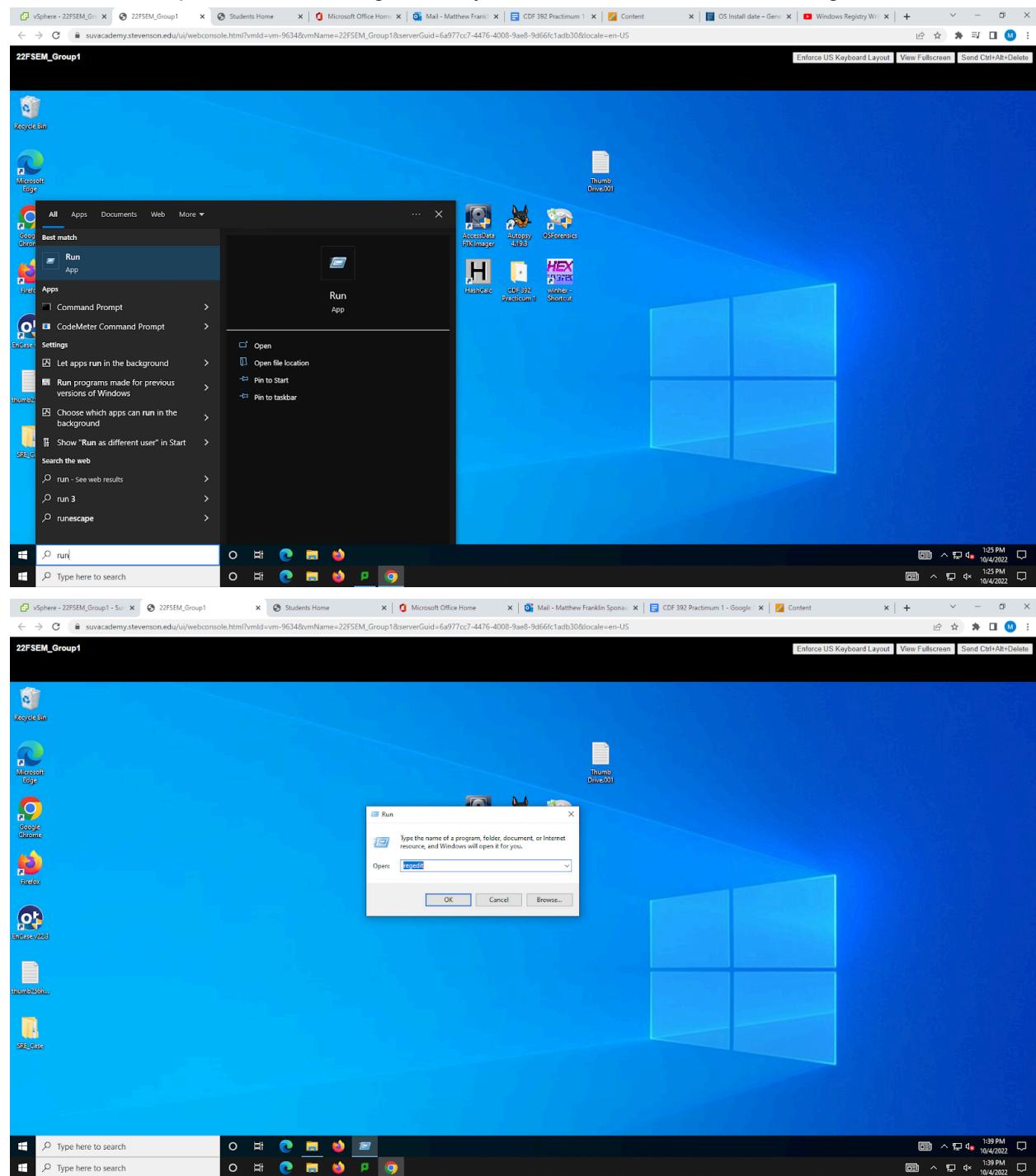
- How many video files are on the drive?
 - There are 0 on the drive.
- Are there any password-protected files on the hard drive?
 - We found one password-protected file called “Target.doc” located in the “/img_Thumb Drive.001/vol_vo2/Target.doc”

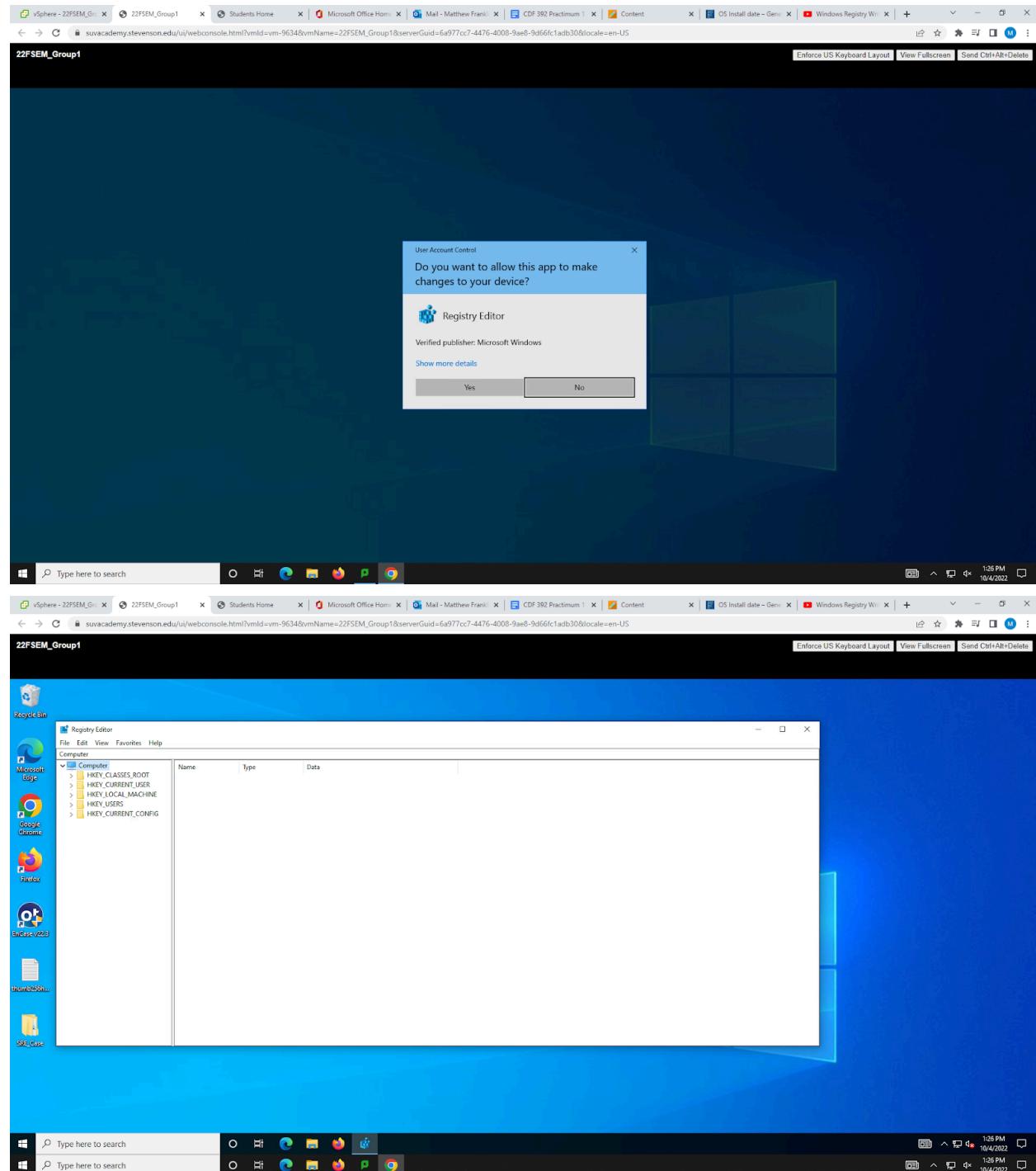
- Is there any Geolocation on the disk?
 - No files contain geolocation data.

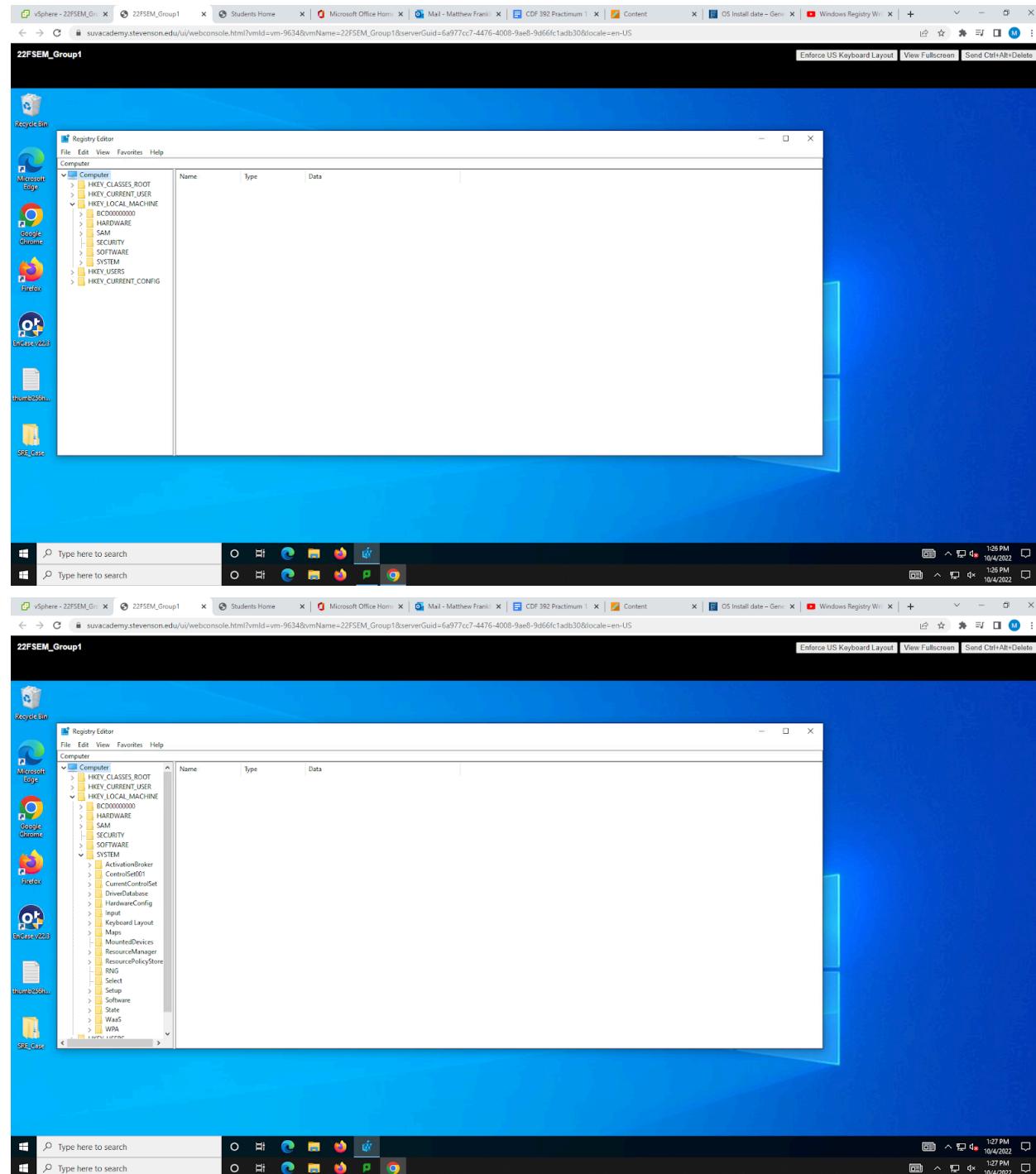


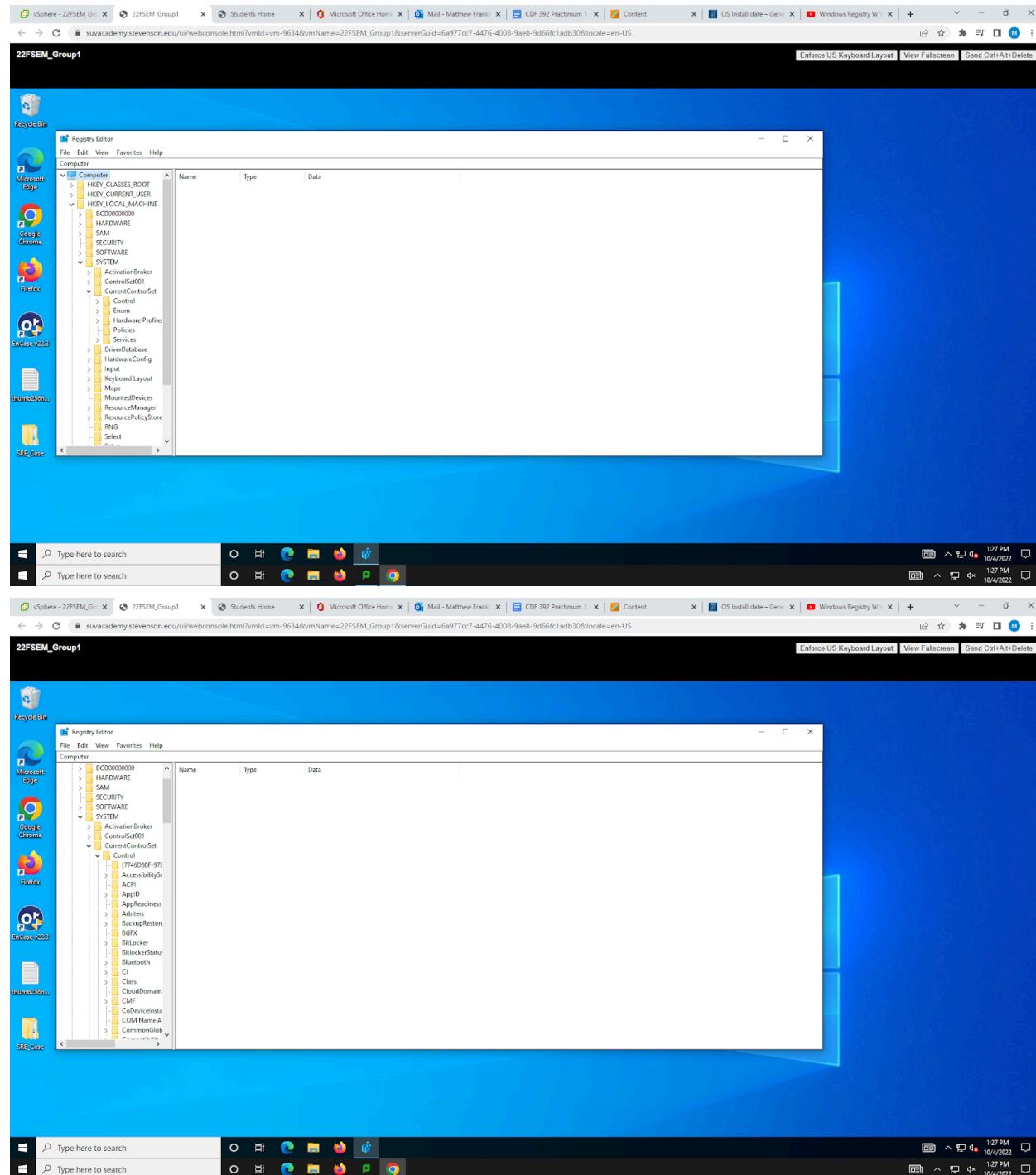
- Do this last:
 - Edit the Windows registry to enable and disable write blocking as shown in the FTK Imager video.

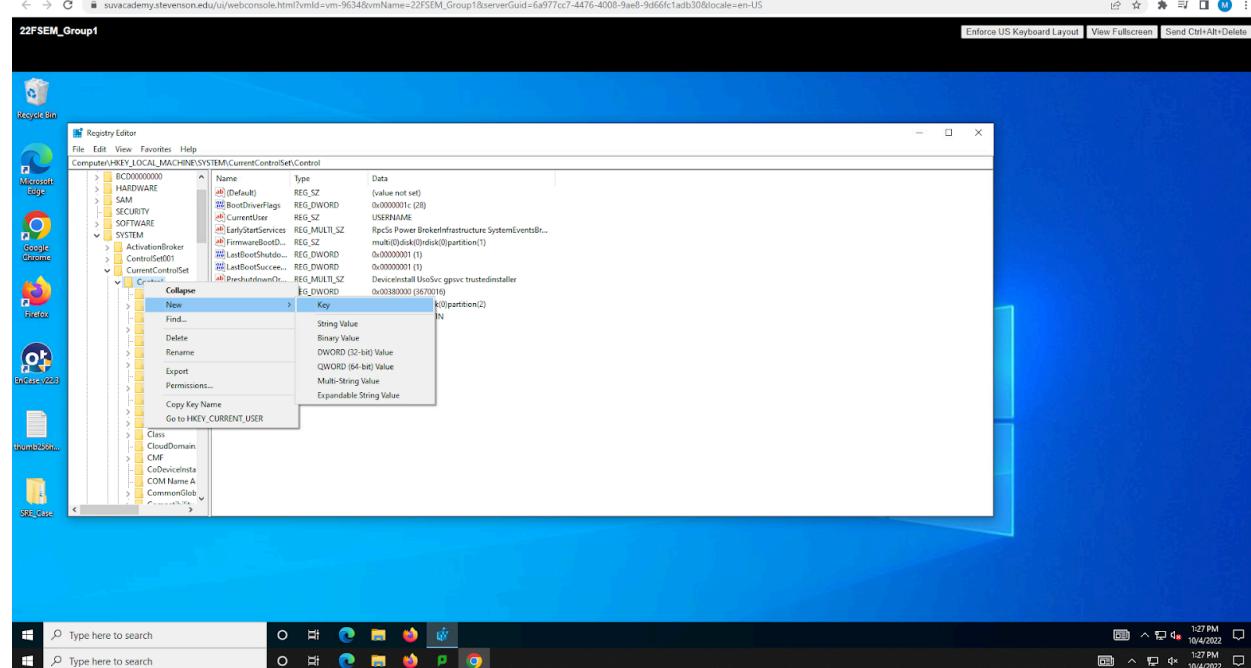
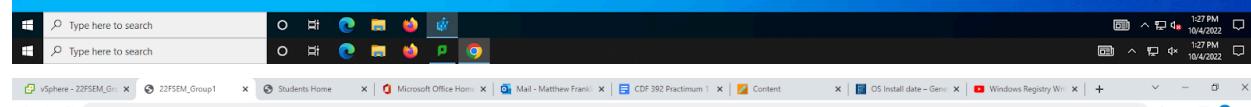
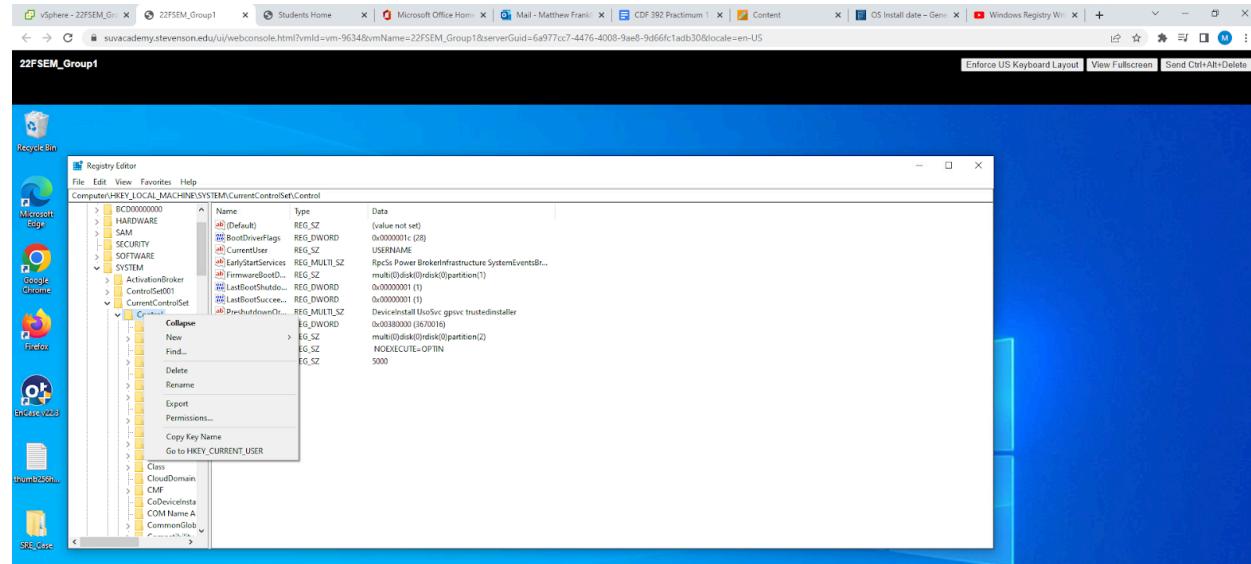
- Include screen captures demonstrating the ability to turn off and turn on write blocking.

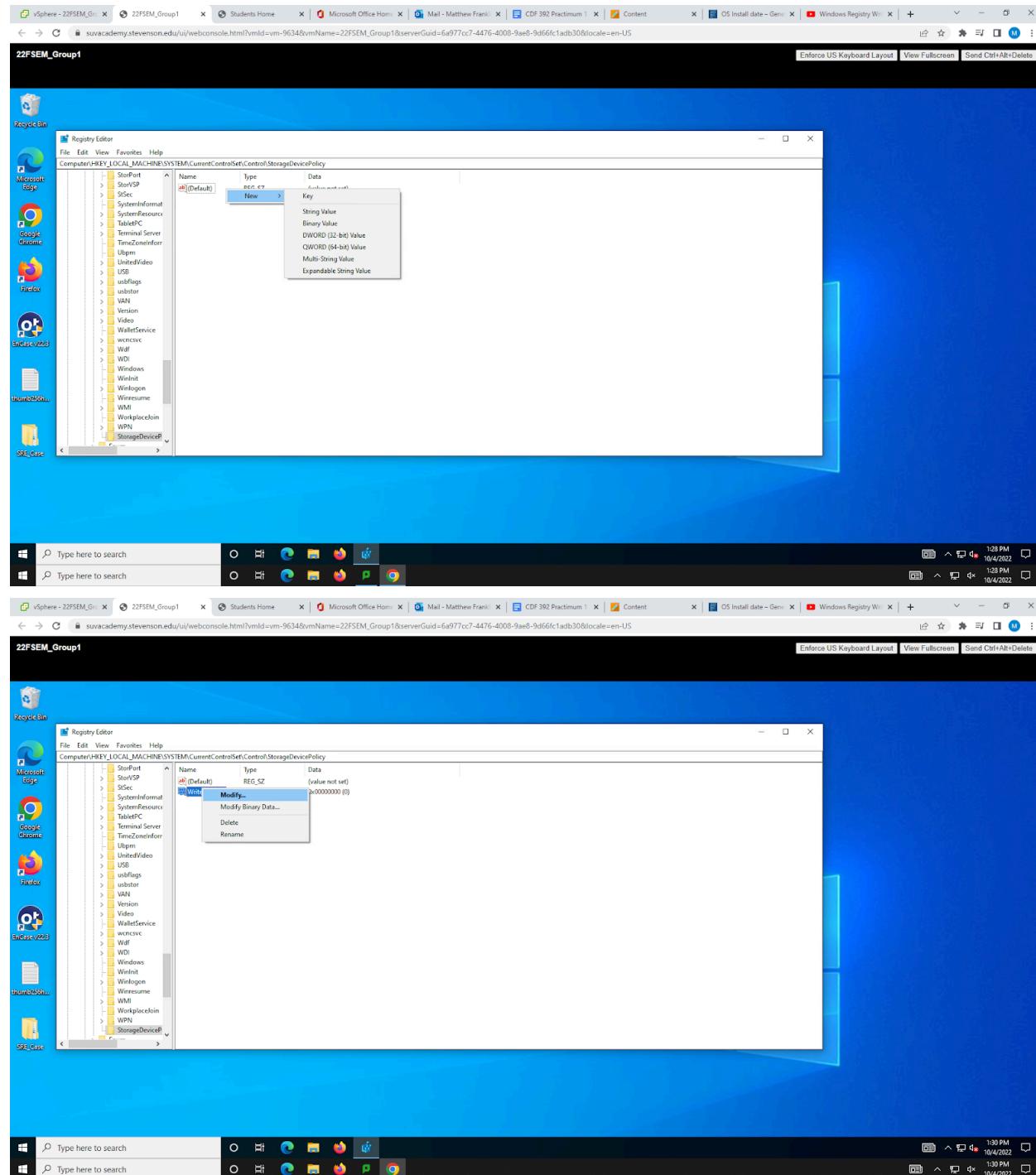


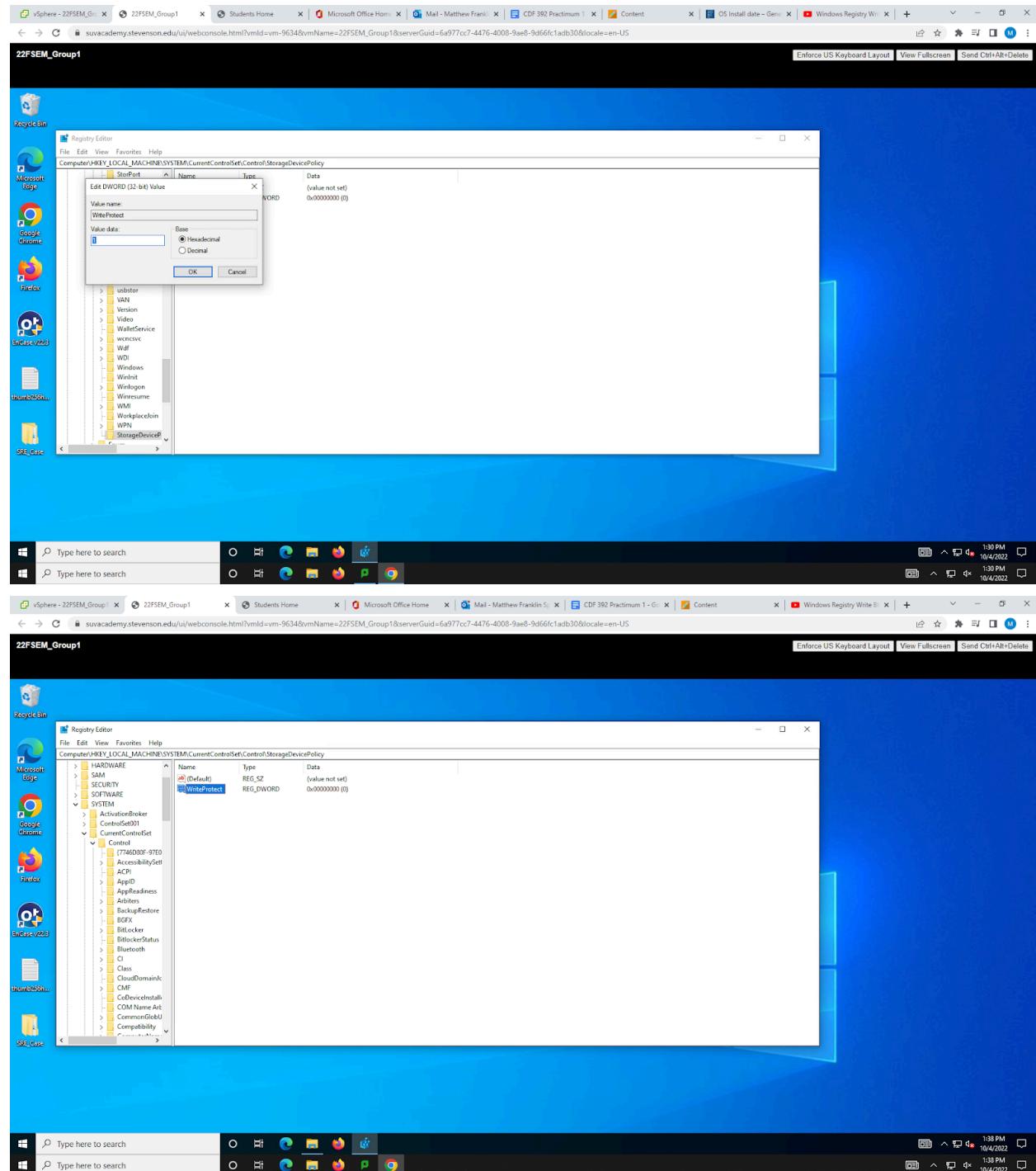












10/13 Suggestions:

- If you are stuck on a problem, go on. (Many questions can be answered out of sequence.)
- You may need to revisit previous class material or use Google
- Use the discussion board to get ideas from team members
- Document all attempts and problems that you encounter

- Include all error documentation in the PPSX file
- You may not be able to answer all of the questions
- Good documentation will enhance your grade
- Poor documentation will reduce your grade