

ITMS 538 Assignment 03a_s

Alan Palayil

Due Date: 09/26/2022

In this lab, we are presented on how the corrupted file can be checked using WinHex. We use a sample corrupted file called ClownFish to practice how to look over and repair the file. After the practice we use the resources given in Assign03a_s.pdf to start repairing Assign03b_rds and these are the following steps I used to identify and repair the Assign03b_rds.

Step 1: The assignment Assign03b_rds is a corrupted file which we open in WinHex.

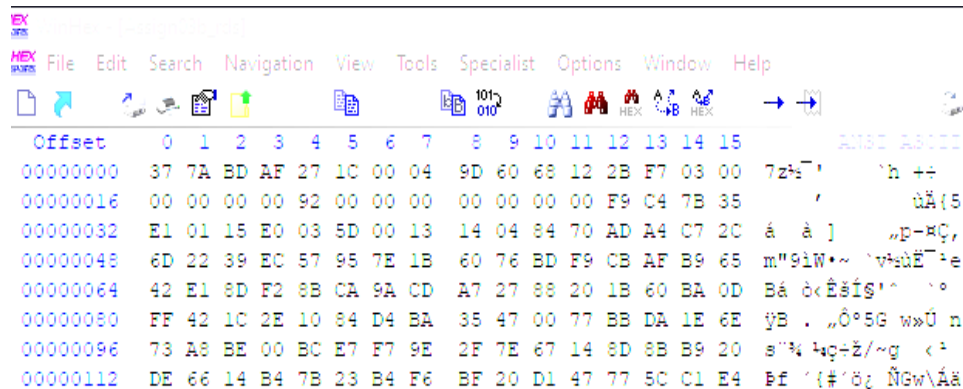


Figure 1: Hexadecimal of original file Assign03_rds

Step 2: As we can see in the ANSI ASCII that 7z is there, we can look up the file signature of 7z on the wikipedia list.



Step 3: We can edit the 3rd offset which appears to be wrong from BD to BC and then save the file as Assign03b_rds-clean.7z

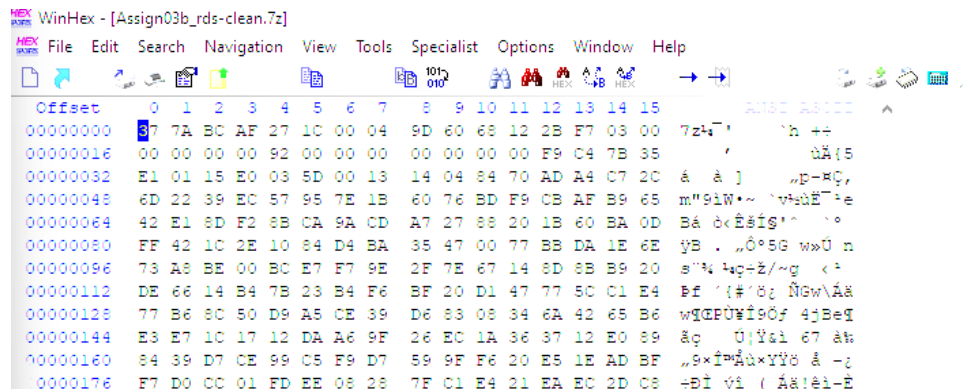


Figure 2: Hexadecimal of new file Assign03_rds-clean.7z

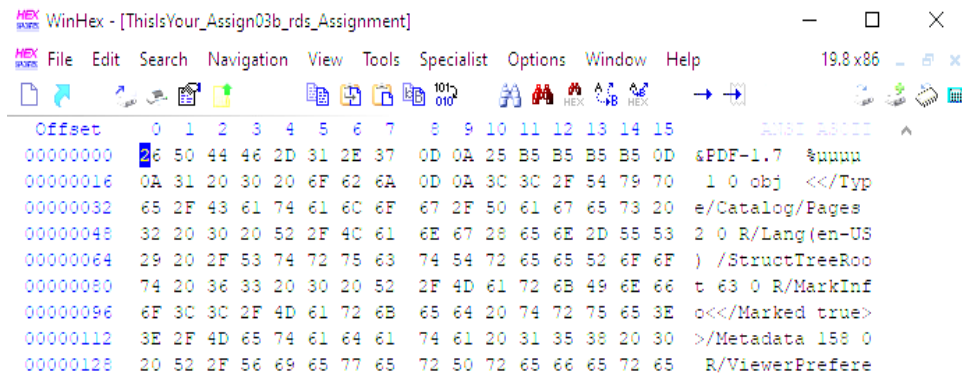
Step 4: We can access the file and after opening the .7z file we are shown with the “ThisIsYour_Assign03b_rds_Assignment” which also appears to be corrupted.

Step 5: We open this file in WinHex.

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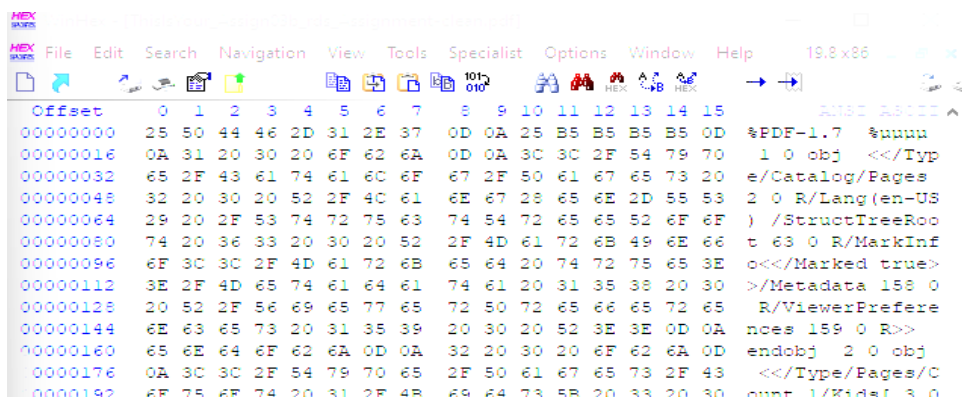
```
WinHex - [ThisIsYour_Assign03b_rds_Assignment]
File Edit Search Navigation View Tools Specialist Options Window Help
Offset 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
00000000 26 50 44 46 2D 31 2E 37 0D 0A 25 B5 B5 B5 B5 0D %PDF-1.7 %uuuu
00000016 0A 31 20 30 20 6F 62 6A 0D 0A 3C 3C 2F 54 79 70 1 0 obj <</Typ
00000032 65 2F 43 61 74 61 6C 6F 67 2F 50 61 67 65 73 20 e/Catalog/Pages
00000048 32 20 30 20 52 2F 4C 61 6E 67 28 65 6E 2D 55 53 2 0 R/Lang(en-US
00000064 29 20 2F 53 74 72 75 63 74 54 72 65 65 52 6F 6F ) /StructTreeRo
00000080 74 20 36 33 20 30 20 52 2F 4D 61 72 6B 49 6E 66 t 63 0 R/MarkInf
00000096 6F 3C 3C 2F 4D 61 72 6B 65 64 20 74 72 75 65 3E o<</Marked true>
00000112 3E 2F 4D 65 74 61 64 61 74 61 20 31 35 38 20 30 >/Metadata 158 0
00000128 20 52 2F 56 69 65 77 65 72 50 72 65 66 65 72 65 R/ViewerPrefere
00000144 6E 63 65 73 20 31 35 39 20 30 20 52 3E 3E 0D 0A nces 159 0 R>>
00000160 65 6E 64 6F 62 6A 0D 0A 32 20 30 20 6F 62 6A 0D endobj 2 0 obj
00000176 0A 3C 3C 2F 54 79 70 65 2F 50 61 67 65 73 2F 43 <</Type/Pages/C
00000192 6F 75 6F 74 20 31 2F 4B 65 64 73 5B 20 33 20 30 cont 1/Xidref 3 0
```

Figure 3: Hexadecimal of original file ThisIsYour_Assign03b_rds_Assignment

Step 6: As we can see in the ANSI ASCII that PDF is there, we can look up the file signature of PDF on the wikipedia list.

25 50 44 46 2D	%PDF-	0	pdf	PDF document^[29]
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Step 7: We can edit the 0 offset which appears to be wrong from 26 to 25 and then save the file as ThisIsYour_Assign03b_rds_Assignment -clean.pdf



```
WinHex - [ThisIsYour_Assign03b_rds_Assignment-clean.pdf]
File Edit Search Navigation View Tools Specialist Options Window Help
Offset 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
00000000 25 50 44 46 2D 31 2E 37 0D 0A 25 B5 B5 B5 B5 0D %PDF-1.7 %uuuu
00000016 0A 31 20 30 20 6F 62 6A 0D 0A 3C 3C 2F 54 79 70 1 0 obj <</Typ
00000032 65 2F 43 61 74 61 6C 6F 67 2F 50 61 67 65 73 20 e/Catalog/Pages
00000048 32 20 30 20 52 2F 4C 61 6E 67 28 65 6E 2D 55 53 2 0 R/Lang(en-US
00000064 29 20 2F 53 74 72 75 63 74 54 72 65 65 52 6F 6F ) /StructTreeRo
00000080 74 20 36 33 20 30 20 52 2F 4D 61 72 6B 49 6E 66 t 63 0 R/MarkInf
00000096 6F 3C 3C 2F 4D 61 72 6B 65 64 20 74 72 75 65 3E o<</Marked true>
00000112 3E 2F 4D 65 74 61 64 61 74 61 20 31 35 38 20 30 >/Metadata 158 0
00000128 20 52 2F 56 69 65 77 65 72 50 72 65 66 65 72 65 R/ViewerPrefere
00000144 6E 63 65 73 20 31 35 39 20 30 20 52 3E 3E 0D 0A nces 159 0 R>>
00000160 65 6E 64 6F 62 6A 0D 0A 32 20 30 20 6F 62 6A 0D endobj 2 0 obj
00000176 0A 3C 3C 2F 54 79 70 65 2F 50 61 67 65 73 2F 43 <</Type/Pages/C
00000192 6F 75 6F 74 20 31 2F 4B 65 64 73 5B 20 33 20 30 cont 1/Xidref 3 0
```

Figure 4: Hexadecimal of new file ThisIsYour_Assign03b_rds_Assignment -clean.pdf

Step 8: Thus, we can access our Assign03b_rds_Assignment-clean.pdf and a screenshot of the assignment is added.

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Due Date: 09/26/2022

ITMS 538/ITMS 438/IT-S 838

Assignment 03b_rds (Reading and Submittal)

Due: Sunday, October 2, 2022 @ 11:59pm (US Central)

Assignment Objectives

- **Submittal:**
 - *Nelson* text: Submit answers to [Review Questions 1-10 from Chapter 1](#)
 - Submit answers to the Special Problems (see below)
 - *Nelson* text: Submit answers to the following [Review Questions from Chapter 2:](#)
 - 4, 5, 8, 9, 11, 13, 14, 15, 17

Special Problems

SP01.1

1. Define *Carrier's* 3 phases of a digital crime scene investigation.
2. For a hard disk, what are *Carrier's* 4 phases of analysis?
3. Discuss how your responses to (1) and (2) above compare with the *Nelson* text.

SP01.2

For a country other than the United States, identify the part of that country's constitution or laws that are as close to the U.S. Constitution's 4th amendment.

If you are originally from a country other than the U.S., use your country of origin's constitution or laws.

Write a description of the above that includes:

- An identification of the part of the constitution or laws
- A direct, relevant quotation in English of the constitution or laws.

*You must not use the examples given in the *Nelson* text or in my lecture slides.*

Submittal Instructions

- Submit ALL parts of Assign03b_rds as a single submission with clearly marked and separated parts.
- Submit as a single compressed archive in PDF format.
- Observe the homework guidelines provided during the Class 01 lecture.
- Recall that this must be submitted by the [due date \(Sunday, 2 October, US Central\)](#).

No late submissions will be accepted