

1. Misc: The DCM Meta

After downloading a file, I get a file named *challenge.dcm*.
I analyze the file using dcmdump.

```
onyo@DESKTOP-H70VG36: /mnt/c/Users/user/Desktop/CTF2024/wg/dcm
$ dcmdump challenge.dcm

# Dicom-File-Format

# Dicom-Meta-Information-Header
# Used TransferSyntax: Unknown Transfer Syntax

# Dicom-Data-Set
# Used TransferSyntax: Little Endian Implicit
(0011,0010) LO [WGMV] # 4, 1 PrivateCreator
(0011,1000) ?? 66\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1001) ?? 36\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1002) ?? 33\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1003) ?? 61\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1004) ?? 63\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1005) ?? 64\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1006) ?? 33\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1007) ?? 62\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1008) ?? 37\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1009) ?? 38\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100a) ?? 31\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100b) ?? 32\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100c) ?? 37\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100d) ?? 63\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100e) ?? 31\00\00\00 # 4, 1 Unknown Tag & Data
(0011,100f) ?? 64\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1010) ?? 37\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1011) ?? 64\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1012) ?? 33\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1013) ?? 65\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1014) ?? 37\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1015) ?? 30\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1016) ?? 30\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1017) ?? 62\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1018) ?? 35\00\00\00 # 4, 1 Unknown Tag & Data
(0011,1019) ?? 35\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101a) ?? 36\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101b) ?? 36\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101c) ?? 35\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101d) ?? 33\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101e) ?? 35\00\00\00 # 4, 1 Unknown Tag & Data
(0011,101f) ?? 34\00\00\00 # 4, 1 Unknown Tag & Data
```

I don't know any other way that is more convenient so I just paste all of them on a spreadsheet.

	A	B	C	D
1	0	(0011,1000) ?? 66\00\00\00		
2	1	(0011,1001) ?? 36\00\00\00		
3	2	(0011,1002) ?? 33\00\00\00		
4	3	(0011,1003) ?? 61\00\00\00		
5	4	(0011,1004) ?? 63\00\00\00		
6	5	(0011,1005) ?? 64\00\00\00		
7	6	(0011,1006) ?? 33\00\00\00		
8	7	(0011,1007) ?? 62\00\00\00		
9	8	(0011,1008) ?? 37\00\00\00		
10	9	(0011,1009) ?? 38\00\00\00		
11	10	(0011,100a) ?? 31\00\00\00		
12	11	(0011,100b) ?? 32\00\00\00		
13	12	(0011,100c) ?? 37\00\00\00		
14	13	(0011,100d) ?? 63\00\00\00		
15	14	(0011,100e) ?? 31\00\00\00		
16	15	(0011,100f) ?? 64\00\00\00		
17	16	(0011,1010) ?? 37\00\00\00		
18	17	(0011,1011) ?? 64\00\00\00		
19	18	(0011,1012) ?? 33\00\00\00		
20	19	(0011,1013) ?? 65\00\00\00		
21	20	(0011,1014) ?? 37\00\00\00		
22	21	(0011,1015) ?? 30\00\00\00		
23	22	(0011,1016) ?? 30\00\00\00		
24	23	(0011,1017) ?? 62\00\00\00		
25	24	(0011,1018) ?? 35\00\00\00		

Then, I ask ChatGPT to rearrange the hex according to the challenge's description.

```
The rearranged hex values based on the specified order are:
```

```
CSS
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```
[ '35', '31', '66', '61', '64', '65', '62', '36', '63', '63', '37', '37', '35', '30', '34',
```


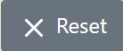
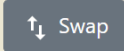
And finally, I copy the rearranged hex and paste it on a Hex to ASCII Text converter website to get the flag.

Paste hex numbers or drop file

```
[ '35', '31', '66', '61', '64', '65', '62', '36', '63', '63', '37', '37', '35', '30', '34', '64', '62', '33', '33', '36', '38', '35', '30', '64', '35', '33', '36', '32', '33', '31', '37', '37']
```

Character encoding

ASCII

51fadeb6cc77504db336850d53623177

Flag: wgmy{51fadeb6cc77504db336850d53623177}