

# AntCTF x D^3CTF MISC部分Writeup

原创

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订阅专栏

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## BadW3ter

BadW3ter[SOLVED]

### Description

[Dive into] the w3ter, deeper and deeper.

Challenge Address <http://d3ctf-attachments.n3ko.co/Misc/WATER%20-%20baebc013019c6a2db3c854da7448d304.zip>

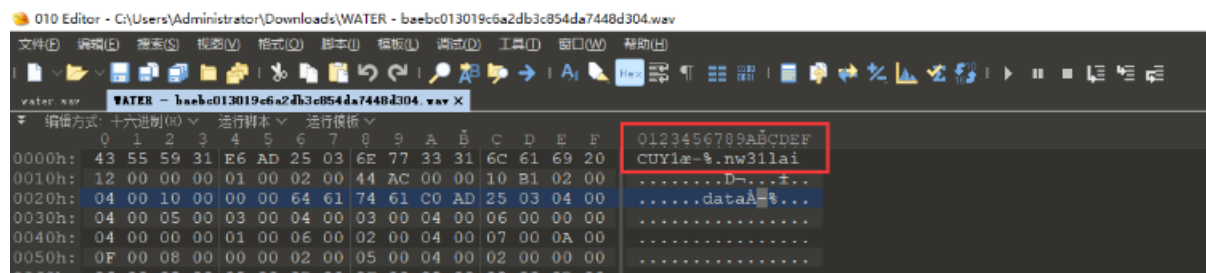
Base Score 1000

Now Score 450.71

Team solved 22

CSDN @末初

附件是wav, 但是文件头有点问题, 对比一下正常的wav即可发现前十六个字节被修改了

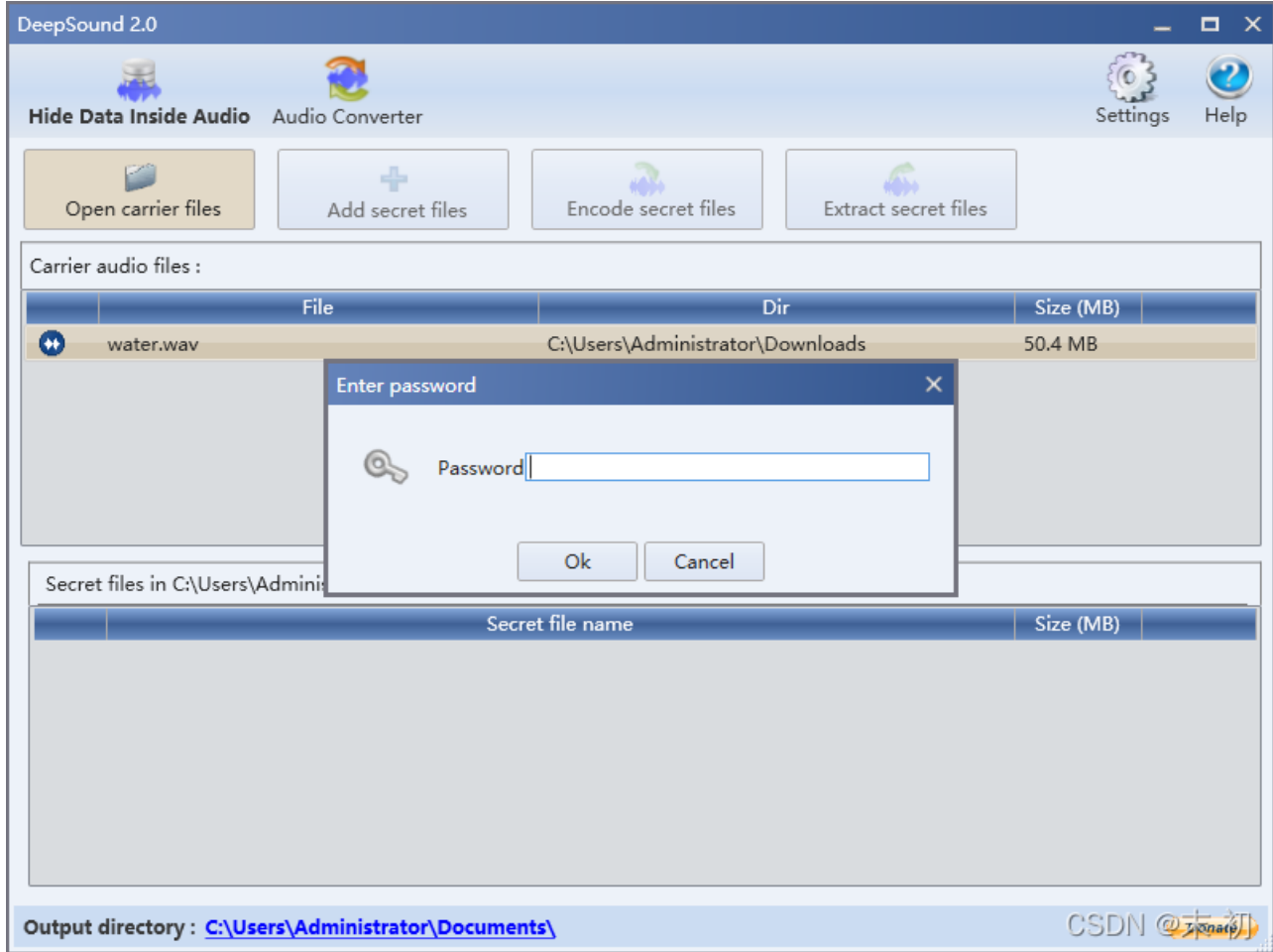


第一行的内容猜测也是个有用的线索: [CUY1nw31lai](#)

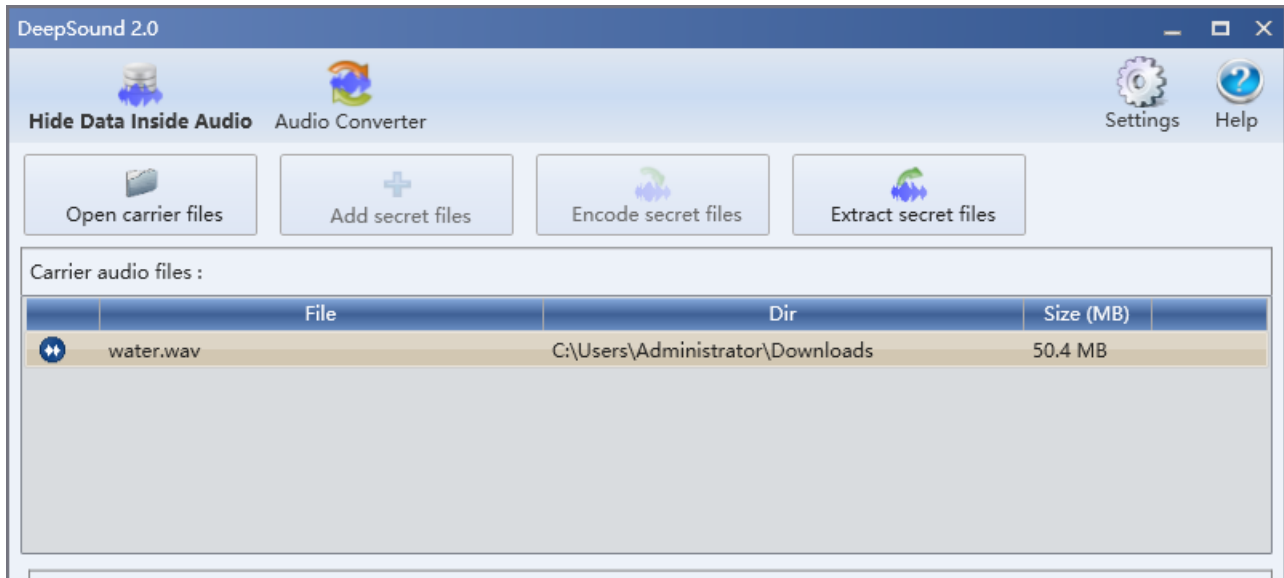
修改前十六个进制正常的wav文件头

```
文件(F) 编辑(E) 搜索(S) 视图(V) 格式(O) 脚本(I) 模板(L) 调试(D) 工具(T) 窗口(W) 帮助(H)
water.wav x WATER - baebc013019c6a2db3c854da7448d304.wav
编辑方式: 十六进制(H) 运行脚本 运行模板
0 1 2 3 4 5 6 7 8 9 A B C D E F 0123456789ABCDEF
0000h: 52 49 46 46 C4 56 E8 00 57 41 56 45 66 6D 74 20 RIFFÄVè.WAVEfmt
0010h: 12 00 00 00 01 00 02 00 44 AC 00 00 10 B1 02 00 .....D~...±..
0020h: 04 00 10 00 00 00 64 61 74 61 C0 AD 25 03 04 00 .....dataÀ-%...
```

然后测试几个常见的wav文件隐写：SilentEye、Deepsound等  
稍微测试一下发现是DeepSound



输入前面的到线索作为密码。得到flag.png



Secret files in C:\Users\Administrator\Downloads\water.wav:

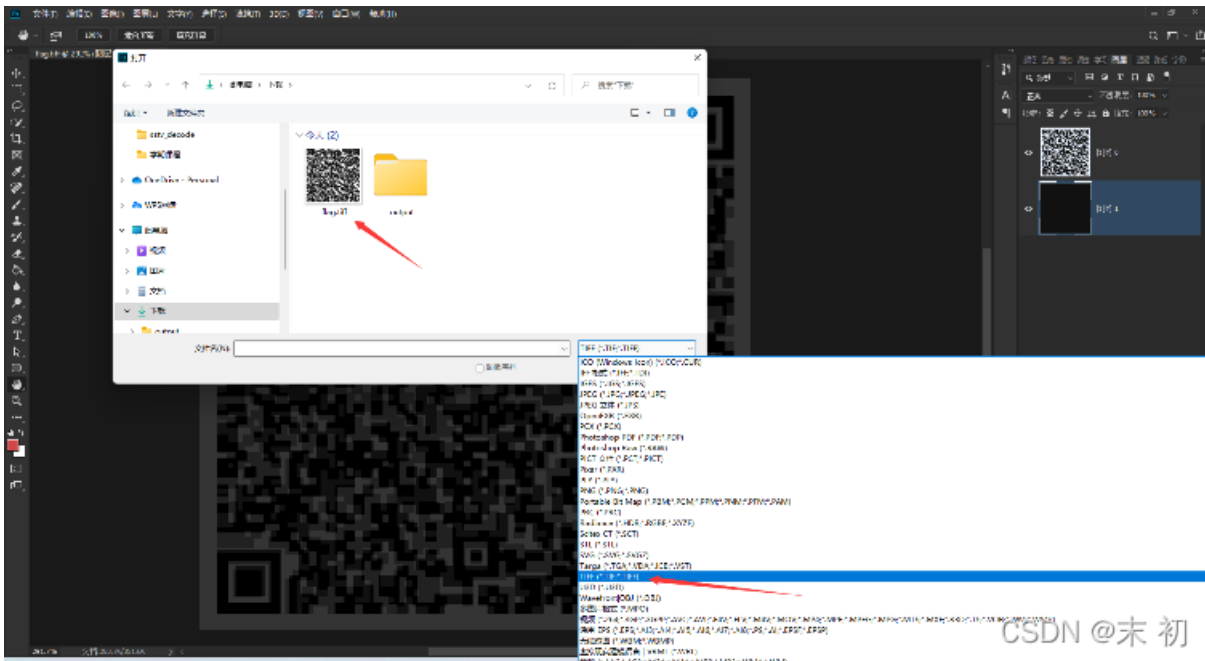
Secret file name	Size (MB)
flag.png	0.4 MB

Output directory: <C:\Users\Administrator\Documents> CSDN @末初

file识别文件发现flag.png是TIFF文件

```
PowerShell
root@mechu7-pc:/mnt/c/Users/Administrator/Downloads# file flag1.png
flag1.png: TIFF image data, little-endian, direntries=20, height=300, bps=254, compression=none, PhotometricIntepretation=RGB, width=300
root@mechu7-pc:/mnt/c/Users/Administrator/Downloads#
```

PS可以选择打开TIFF文件



首先有两个图层，有一个白底图层，然后这个二维码是三部分颜色组成：黑、白、灰

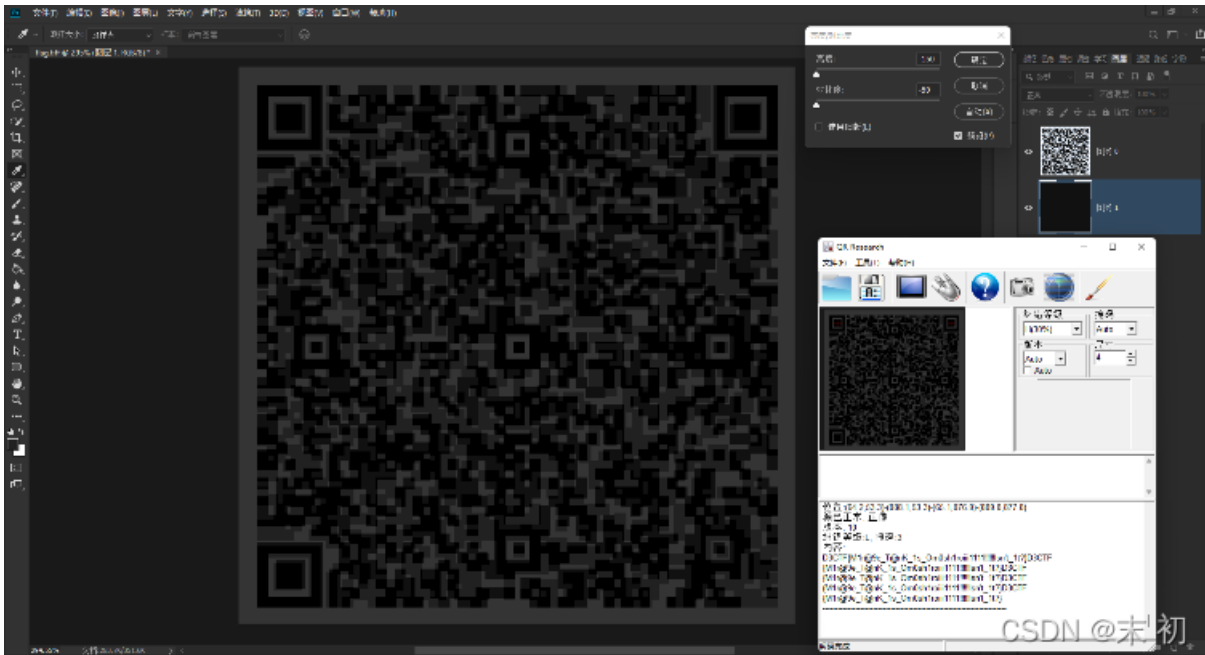




把白底图层涂成灰色(和二维码图层中的灰色一样的: [33,33,33]), 用油桶或者填充都可以



然后 图像->调整->亮度/对比度 直接将亮度, 对比度拉到最低, 扫描二维码即可得到flag



```
D3CTF{M1r@9e_T@nK_1s_0m0sh1roiii1111!!!!!!Isn't_1t?}
```

# WannaWacca

## Description

OMG, I think this is a ransomware virus.

New WannaWacca file (add hint): <http://d3ctf-attachments.n3ko.co/Misc/flag.zip.WannaWacca>

Note: please add 'd3ctf()' to flag

Challenge Address [http://d3ctf-2022.oss-cn-shanghai.aliyuncs.com/Misc/WannaWacca\\_56de276c1ce9fd8f3df25b16632b7a4c.7z](http://d3ctf-2022.oss-cn-shanghai.aliyuncs.com/Misc/WannaWacca_56de276c1ce9fd8f3df25b16632b7a4c.7z)

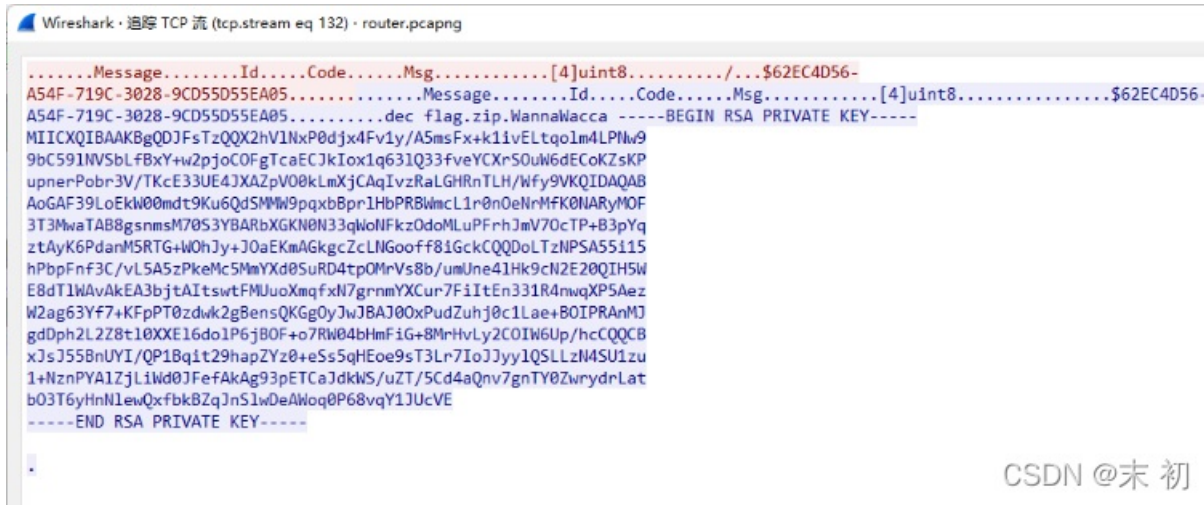
Base Score 1000

Now Score 702.6

Team solved 6

CSDN @末初

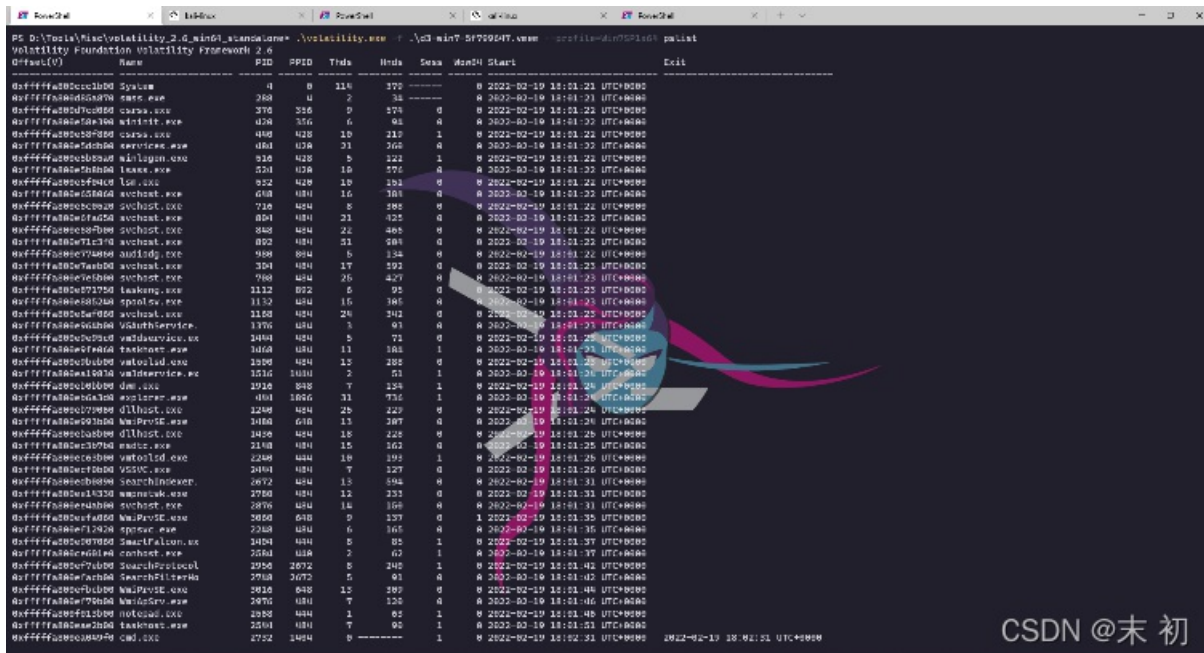
流量包 tcp contains "flag" tcp追踪长度最长的包



CSDN @末初

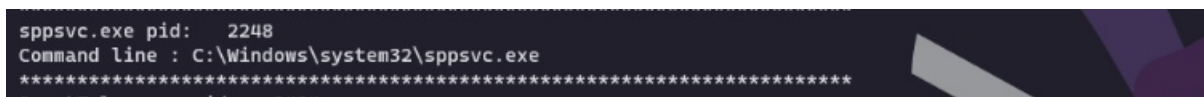
可以得到解 flag.zip.WannaWacca 的密钥

d3-win7-5f799647.vmem 查看进程，比较可疑的是 cmd.exe 以及 notepad.exe



CSDN @末初

cmdline 查看发现几个可疑点，SmartFalcon.exe、readme.txt





```

SmartFalcon.exe pid: 1494
Command line : "C:\Users\D3CTF\Desktop\SmartFalcon.exe"
*****
conhost.exe pid: 2584
Command line : \??C:\Windows\system32\conhost.exe "-1131779665-1987471355-1997369161-1784329561-142565
*****
SearchProtocol pid: 2956
Command line : "C:\Windows\system32\SearchProtocolHost.exe" Global\UsGthrFltPipeMssGthrPipe_S-1-5-21-13
65548-10001 1 -2147483646 "Software\Microsoft\Windows Search" "Mozilla/4.0 (compatible; MSIE 6.0; Wind
*****
SearchFilterHo pid: 2748
Command line : "C:\Windows\system32\SearchFilterHost.exe" 0 548 552 560 65536 556
*****
WmiPrvSE.exe pid: 3016
Command line : C:\Windows\system32\wbem\wmiprvse.exe
*****
WmiApSrv.exe pid: 2976
Command line : C:\Windows\system32\wbem\WmiApSrv.exe
*****
notepad.exe pid: 2568
Command line : "C:\Windows\system32\notepad.exe" C:\Users\D3CTF\Desktop\readme.txt
*****
taskhost.exe pid: 2544
Command line : "taskhost.exe"
*****
cmd.exe pid: 2732
*****
cmd.exe pid: 2788
PS D:\Tools\Misc\volatility_2.6_win64_standalone> |

```

CSDN @末初

memdump 把 notepad 和 SmartFalcon 的内存文件导出出来

readme.txt 内容如下

What Happened to My Flag?

Your important flag is encrypted.

Can I recover My Flag?

Sincerely, We guarantee that you can recover your flag safely and easily. But you have not so enough time. If you don't pay in 48 hours, you won't be able to recover your flag.

How Do I Pay?

Payment is accepted in D3coin only. Send \$126 worth of D3coin to the author. All ransom will be used to play Warcraft.

YOU WILL NEVER KNOW MY IP ADDRESS!

binwalk分析 SmartFalcon.exe

```

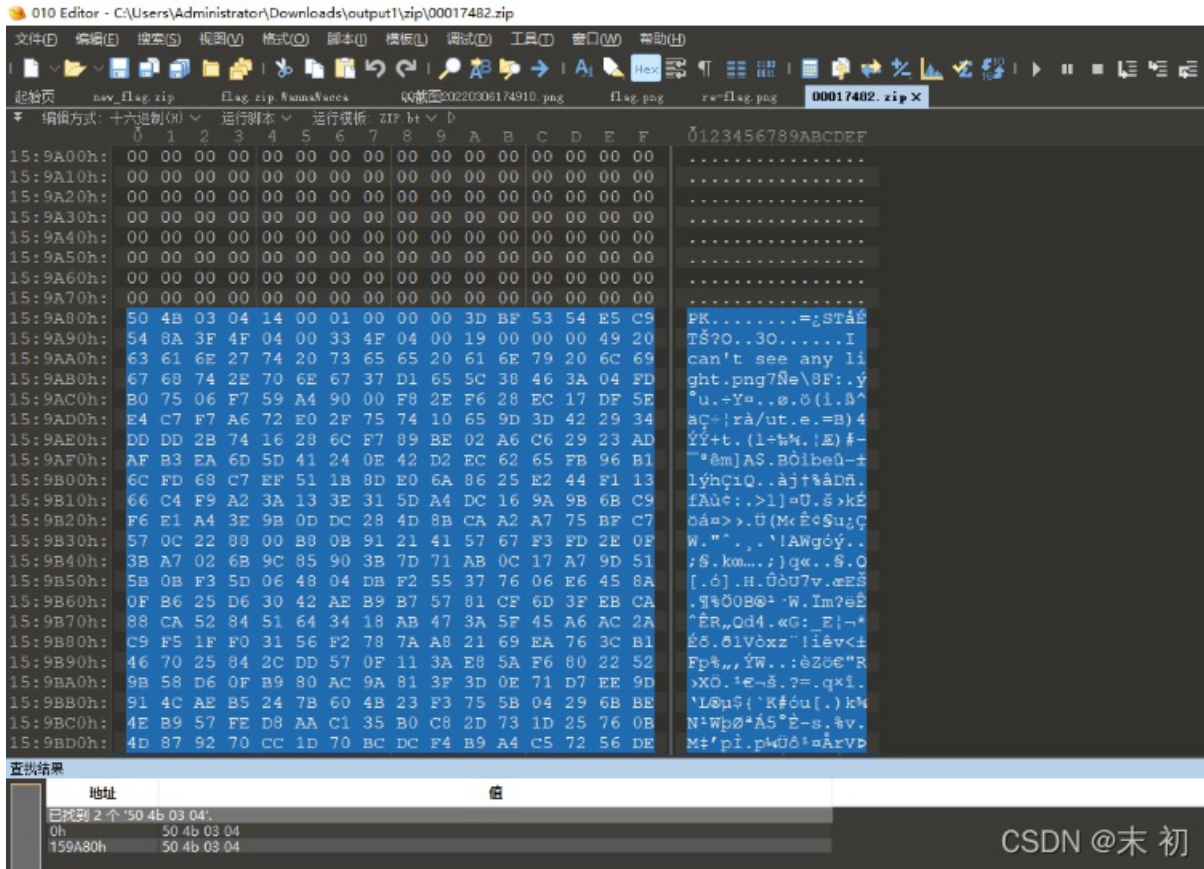
root@kali:~# binwalk --extract SmartFalcon.exe
SmartFalcon.exe: data
root@kali:~# binwalk --extract SmartFalcon.exe

```

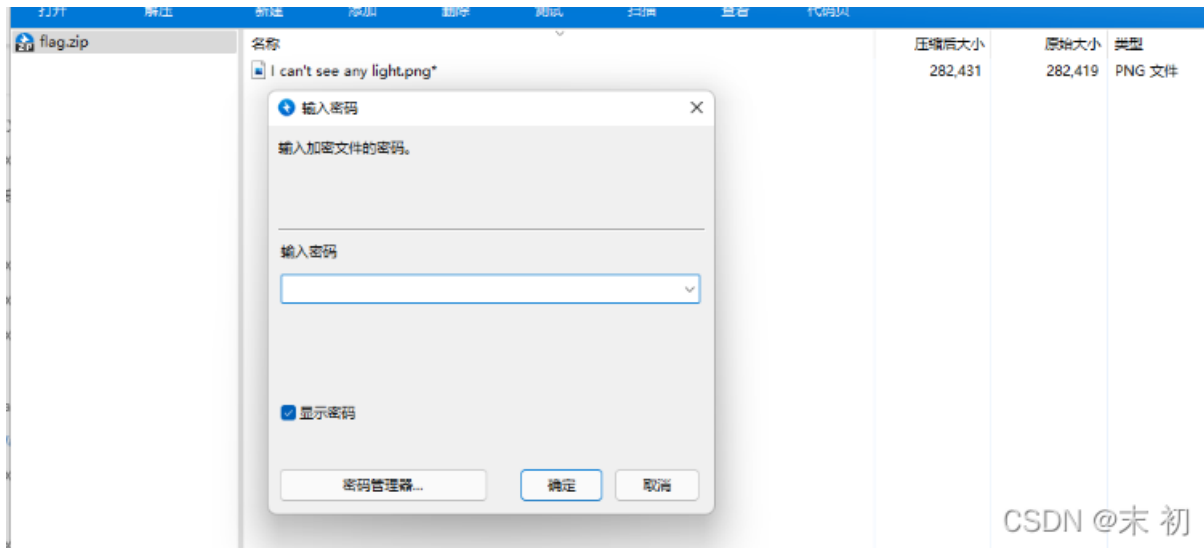
DECIMAL	HEXADCEMIAL	DESCRIPTION
311494	0x7C08C	LZMA compressed data, properties: 0x00, dictionary size: 638670912 bytes, uncompressed size: 60124 bytes
318546	0x216086	Microsoft executable, portable (PE)
377237	0x5C0CF3	Unix path: /dev/sdcr/ov/s/obul50517578123 : fwww.sp-RL4HE2L-2165L4HE2L-3345L4HE2L-1112L4HE2L-235CClassHE5100CloseHandleCreateFileDeleteF
3800760	0x3C0276	Unix path: /lib/udev/udev/s/obul50517578123 : fwww.sp-RL4HE2L-2165L4HE2L-3345L4HE2L-1112L4HE2L-235CClassHE5100CloseHandleCreateFileDeleteF
4028295	0x3D0028	Base64 standard index table
4187023	0x7E0502	Unicode symbol table, big endian, first entry: [type: initialized data, code address: 0x000, symbol address: 0x100]
4214846	0x408046	SHA256 hash constants, little endian
4214850	0x408046	SHA256 hash constants, little endian
4281786	0x408046	SHA256 hash constants, little endian
5196628	0x3D0268	Microsoft executable, portable (PE)
6498984	0x632884	Microsoft executable, portable (PE)
6540251	0x537075	Microsoft executable, portable (PE)
6540616	0x537075	Microsoft executable, portable (PE)
6541070	0x537075	Microsoft executable, portable (PE)
6541424	0x537075	Microsoft executable, portable (PE)
6541778	0x537075	Microsoft executable, portable (PE)
6542132	0x537075	Microsoft executable, portable (PE)
6542486	0x537075	Microsoft executable, portable (PE)
6542840	0x537075	Microsoft executable, portable (PE)
6543194	0x537075	Microsoft executable, portable (PE)
6543548	0x537075	Microsoft executable, portable (PE)
6543902	0x537075	Microsoft executable, portable (PE)
6544256	0x537075	Microsoft executable, portable (PE)
6544610	0x537075	Microsoft executable, portable (PE)
6544964	0x537075	Microsoft executable, portable (PE)
6545318	0x537075	Microsoft executable, portable (PE)
6545672	0x537075	Microsoft executable, portable (PE)
6546026	0x537075	Microsoft executable, portable (PE)
6546380	0x537075	Microsoft executable, portable (PE)
6546734	0x537075	Microsoft executable, portable (PE)
6547088	0x537075	Microsoft executable, portable (PE)
6547442	0x537075	Microsoft executable, portable (PE)
6547796	0x537075	Microsoft executable, portable (PE)
6548150	0x537075	Microsoft executable, portable (PE)
6548504	0x537075	Microsoft executable, portable (PE)
6548858	0x537075	Microsoft executable, portable (PE)
6549212	0x537075	Microsoft executable, portable (PE)
6549566	0x537075	Microsoft executable, portable (PE)
6549920	0x537075	Microsoft executable, portable (PE)
6550274	0x537075	Microsoft executable, portable (PE)
6550628	0x537075	Microsoft executable, portable (PE)
6550982	0x537075	Microsoft executable, portable (PE)
6551336	0x537075	Microsoft executable, portable (PE)
6551690	0x537075	Microsoft executable, portable (PE)
6552044	0x537075	Microsoft executable, portable (PE)
6552398	0x537075	Microsoft executable, portable (PE)
6552752	0x537075	Microsoft executable, portable (PE)
6553106	0x537075	Microsoft executable, portable (PE)
6553460	0x537075	Microsoft executable, portable (PE)
6553814	0x537075	Microsoft executable, portable (PE)
6554168	0x537075	Microsoft executable, portable (PE)
6554522	0x537075	Microsoft executable, portable (PE)
6554876	0x537075	Microsoft executable, portable (PE)
6555230	0x537075	Microsoft executable, portable (PE)
6555584	0x537075	Microsoft executable, portable (PE)
6555938	0x537075	Microsoft executable, portable (PE)
6556292	0x537075	Microsoft executable, portable (PE)
6556646	0x537075	Microsoft executable, portable (PE)
6557000	0x537075	Microsoft executable, portable (PE)
6557354	0x537075	Microsoft executable, portable (PE)
6557708	0x537075	Microsoft executable, portable (PE)
6558062	0x537075	Microsoft executable, portable (PE)
6558416	0x537075	Microsoft executable, portable (PE)
6558770	0x537075	Microsoft executable, portable (PE)
6559124	0x537075	Microsoft executable, portable (PE)
6559478	0x537075	Microsoft executable, portable (PE)
6559832	0x537075	Microsoft executable, portable (PE)
6560186	0x537075	Microsoft executable, portable (PE)
6560540	0x537075	Microsoft executable, portable (PE)
6560894	0x537075	Microsoft executable, portable (PE)
6561248	0x537075	Microsoft executable, portable (PE)
6561602	0x537075	Microsoft executable, portable (PE)
6561956	0x537075	Microsoft executable, portable (PE)
6562310	0x537075	Microsoft executable, portable (PE)
6562664	0x537075	Microsoft executable, portable (PE)
6563018	0x537075	Microsoft executable, portable (PE)
6563372	0x537075	Microsoft executable, portable (PE)
6563726	0x537075	Microsoft executable, portable (PE)
6564080	0x537075	Microsoft executable, portable (PE)
6564434	0x537075	Microsoft executable, portable (PE)
6564788	0x537075	Microsoft executable, portable (PE)
6565142	0x537075	Microsoft executable, portable (PE)
6565496	0x537075	Microsoft executable, portable (PE)
6565850	0x537075	Microsoft executable, portable (PE)
6566204	0x537075	Microsoft executable, portable (PE)
6566558	0x537075	Microsoft executable, portable (PE)
6566912	0x537075	Microsoft executable, portable (PE)
6567266	0x537075	Microsoft executable, portable (PE)
6567620	0x537075	Microsoft executable, portable (PE)
6567974	0x537075	Microsoft executable, portable (PE)
6568328	0x537075	Microsoft executable, portable (PE)
6568682	0x537075	Microsoft executable, portable (PE)
6569036	0x537075	Microsoft executable, portable (PE)
6569390	0x537075	Microsoft executable, portable (PE)
6569744	0x537075	Microsoft executable, portable (PE)
6570098	0x537075	Microsoft executable, portable (PE)
6570452	0x537075	Microsoft executable, portable (PE)
6570806	0x537075	Microsoft executable, portable (PE)
6571160	0x537075	Microsoft executable, portable (PE)
6571514	0x537075	Microsoft executable, portable (PE)
6571868	0x537075	Microsoft executable, portable (PE)
6572222	0x537075	Microsoft executable, portable (PE)
6572576	0x537075	Microsoft executable, portable (PE)
6572930	0x537075	Microsoft executable, portable (PE)
6573284	0x537075	Microsoft executable, portable (PE)
6573638	0x537075	Microsoft executable, portable (PE)
6573992	0x537075	Microsoft executable, portable (PE)
6574346	0x537075	Microsoft executable, portable (PE)
6574700	0x537075	Microsoft executable, portable (PE)
6575054	0x537075	Microsoft executable, portable (PE)
6575408	0x537075	Microsoft executable, portable (PE)
6575762	0x537075	Microsoft executable, portable (PE)
6576116	0x537075	Microsoft executable, portable (PE)
6576470	0x537075	Microsoft executable, portable (PE)
6576824	0x537075	Microsoft executable, portable (PE)
6577178	0x537075	Microsoft executable, portable (PE)
6577532	0x537075	Microsoft executable, portable (PE)
6577886	0x537075	Microsoft executable, portable (PE)
6578240	0x537075	Microsoft executable, portable (PE)
6578594	0x537075	Microsoft executable, portable (PE)
6578948	0x537075	Microsoft executable, portable (PE)
6579302	0x537075	Microsoft executable, portable (PE)
6579656	0x537075	Microsoft executable, portable (PE)
6580010	0x537075	Microsoft executable, portable (PE)
6580364	0x537075	Microsoft executable, portable (PE)
6580718	0x537075	Microsoft executable, portable (PE)
6581072	0x537075	Microsoft executable, portable (PE)
6581426	0x537075	Microsoft executable, portable (PE)
6581780	0x537075	Microsoft executable, portable (PE)
6582134	0x537075	Microsoft executable, portable (PE)
6582488	0x537075	Microsoft executable, portable (PE)
6582842	0x537075	Microsoft executable, portable (PE)
6583196	0x537075	Microsoft executable, portable (PE)
6583550	0x537075	Microsoft executable, portable (PE)
6583904	0x537075	Microsoft executable, portable (PE)
6584258	0x537075	Microsoft executable, portable (PE)
6584612	0x537075	Microsoft executable, portable (PE)
6584966	0x537075	Microsoft executable, portable (PE)
6585320	0x537075	Microsoft executable, portable (PE)
6585674	0x537075	Microsoft executable, portable (PE)
6586028	0x537075	Microsoft executable, portable (PE)
6586382	0x537075	Microsoft executable, portable (PE)
6586736	0x537075	Microsoft executable, portable (PE)
6587090	0x537075	Microsoft executable, portable (PE)
6587444	0x537075	Microsoft executable, portable (PE)
6587798	0x537075	Microsoft executable, portable (PE)
6588152	0x537075	Microsoft executable, portable (PE)
6588506	0x537075	Microsoft executable, portable (PE)
6588860	0x537075	Microsoft executable, portable (PE)
6589214	0x537075	Microsoft executable, portable (PE)
6589568	0x537075	Microsoft executable, portable (PE)
6589922	0x537075	Microsoft executable, portable (PE)
6590276	0x537075	Microsoft executable, portable (PE)
6590630	0x537075	Microsoft executable, portable (PE)
6590984	0x537075	Microsoft executable, portable (PE)
6591338	0x537075	Microsoft executable, portable (PE)
6591692	0x537075	Microsoft executable, portable (PE)
6592046	0x537075	Microsoft executable, portable (PE)
6592400	0x537075	Microsoft executable, portable (PE)
6592754	0x537075	Microsoft executable, portable (PE)
6593108	0x537075	Microsoft executable, portable (PE)
6593462	0x537075	Microsoft executable, portable (PE)
6593816	0x537075	Microsoft executable, portable (PE)
6594170	0x537075	Microsoft executable, portable (PE)
6594524	0x537075	Microsoft executable, portable (PE)
6594878	0x537075	Microsoft executable, portable (PE)
6595232	0x537075	Microsoft executable, portable (PE)
6595586	0x537075	Microsoft executable, portable (PE)
6595940	0x537075	Microsoft executable, portable (PE)
6596294	0x537075	Microsoft executable, portable (PE)
6596648	0x537075	Microsoft executable, portable (PE)
6597002	0x537075	Microsoft executable, portable (PE)
6597356	0x537075	Microsoft executable, portable (PE)
6597710	0x537075	Microsoft executable, portable (PE)
6598064	0x537075	Microsoft executable, portable (PE)
6598418	0x537075	Microsoft executable, portable (PE)
6598772	0x537075	Microsoft executable, portable (PE)
6599126	0x537075	Microsoft executable, portable (PE)
6599480	0x537075	Microsoft executable, portable (PE)
6599834	0x537075	Microsoft executable, portable (PE)
6600188	0x537075	Microsoft executable, portable (PE)
6600542	0x537075	Microsoft executable, portable (PE)
6600896	0x537075	Microsoft executable, portable (PE)
6601250	0x537075	Microsoft executable, portable (PE)
6601604	0x537075	Microsoft executable, portable (PE)
6601958	0x537075	Microsoft executable, portable (PE)
6602312	0x537075	Microsoft executable, portable (PE)
6602666	0x537075	Microsoft executable, portable (PE)
6603020	0x537075	Microsoft executable, portable (PE)
6603374	0x537075	Microsoft executable, portable (PE)
6603728	0x537075	Microsoft executable, portable (PE)
6604082	0x537075	Microsoft executable, portable (PE)
6604436	0x537075	Microsoft executable, portable (PE)
6604790	0x537075	Microsoft executable, portable (PE)
6605144	0x537075	Microsoft executable, portable (PE)
6605498	0x537075	Microsoft executable, portable (PE)
6605852	0x537075	Microsoft executable, portable (PE)
6606206	0x537075	Microsoft executable, portable (PE)
6606560	0x537075	Microsoft executable, portable (PE)
6606914	0x537075	Microsoft executable, portable (PE)
6607268	0x537075	Microsoft executable, portable (PE)
6607622	0x537075	Microsoft executable, portable (PE)
6607976	0x537075	Microsoft executable, portable (PE)
6608330	0x537075	Microsoft executable, portable (PE)
6608684	0x537075	Microsoft executable, portable (PE)
6609038	0x537075	Microsoft executable, portable (PE)
6609392	0x537075	Microsoft executable, portable (PE)
6609746	0x537075	Microsoft executable, portable (PE)
6610100	0x537075	Microsoft executable, portable (PE)
6610454	0x537075	Microsoft executable, portable (PE)
6610808	0x537075	Microsoft executable, portable (PE)
6611162	0x537075	Microsoft executable, portable (PE)
6611516	0x537075	Microsoft executable, portable (PE)
6611870	0x537075	Microsoft executable, portable (PE)
6612224	0x537075	Microsoft executable, portable (PE)
6612578	0x537075	Microsoft executable, portable (PE)
6612932	0x537075	Microsoft executable, portable (PE)
6613286	0x537075	Microsoft executable, portable (PE)
6613640	0x537075	Microsoft executable, portable (PE)
6613994	0x537075	Microsoft executable, portable (PE)
6614348	0x537075	Microsoft executable, portable (PE)
6614702	0x537075	Microsoft executable, portable (PE)
6615056	0x537075	Microsoft executable, portable (PE)
6615410	0x537075	Microsoft executable, portable (PE)
6615764	0x537075	Microsoft executable, portable (PE)
6616118	0x537075	Microsoft executable, portable (PE)
6616472	0x537075	Microsoft executable, portable (PE)
6616826	0x537075	Microsoft executable, portable (PE)
6617180	0x537075	Microsoft executable, portable (PE)
6617534	0x537075	Microsoft executable, portable (PE)
6617888	0x537075	Microsoft executable, portable (PE)
6618242	0x537075	Microsoft executable, portable (PE)
6618596	0x537075	Microsoft executable, portable (PE)
6618950	0x537075	Microsoft executable, portable (PE)
6619304	0x537075	Microsoft executable, portable (PE)
6619658	0x537075	Microsoft executable, portable (PE)
6620012	0x537075	Microsoft executable, portable (PE)
6620366	0x537075	Microsoft executable, portable (PE)
6620720	0x537075	Microsoft executable, portable (PE)
6621074	0x537075	

foremost 可以分离出来zip压缩包

从分离得到压缩包中，寻找zip文件头，提取第二个zip文件头到文件末尾的数据，另存为zip



得到完整的压缩包，只有一个png图片文件，但是有密码



有固定的文件头的压缩包，可以使用bkcrack进行明文爆破

```
echo -n "89504E470D0A1A0A000000D49484452" | xxd -r -ps > key
bkcrack -C flag.zip -c "I can't see any light.png" -p key -o 0
bkcrack -C flag.zip -c "I can't see any light.png" -k bd363f25 3a7da3aa 4bbe3175 -d flag.png
```

得到flag.zip中的图片，根据图片特征，有很多白线，以及图片内容是一个苹果，猜测可能是苹果系统特供图

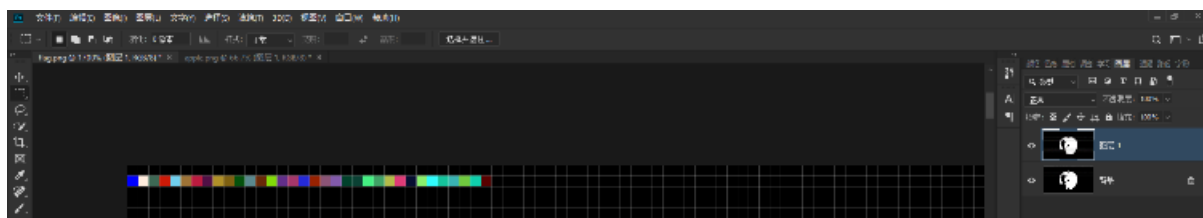


使用fotoforensics查看这张图在Apple端的显示内容: <https://fotoforensics.com/>

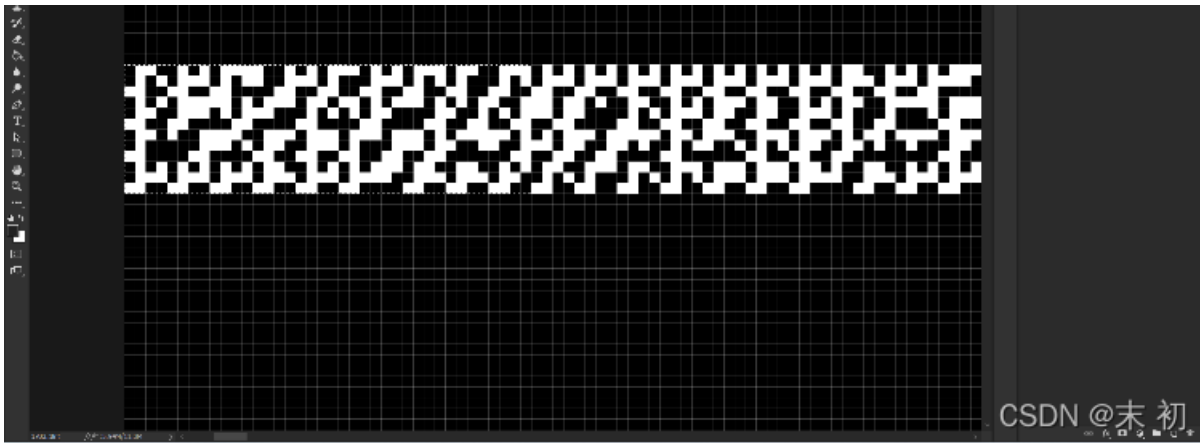


可以看到在Apple并行端显示的内容不一样，下载这张图可能不好下，F12之后再network中找到这张图的链接，下载这张图。或者审查源码下载也可

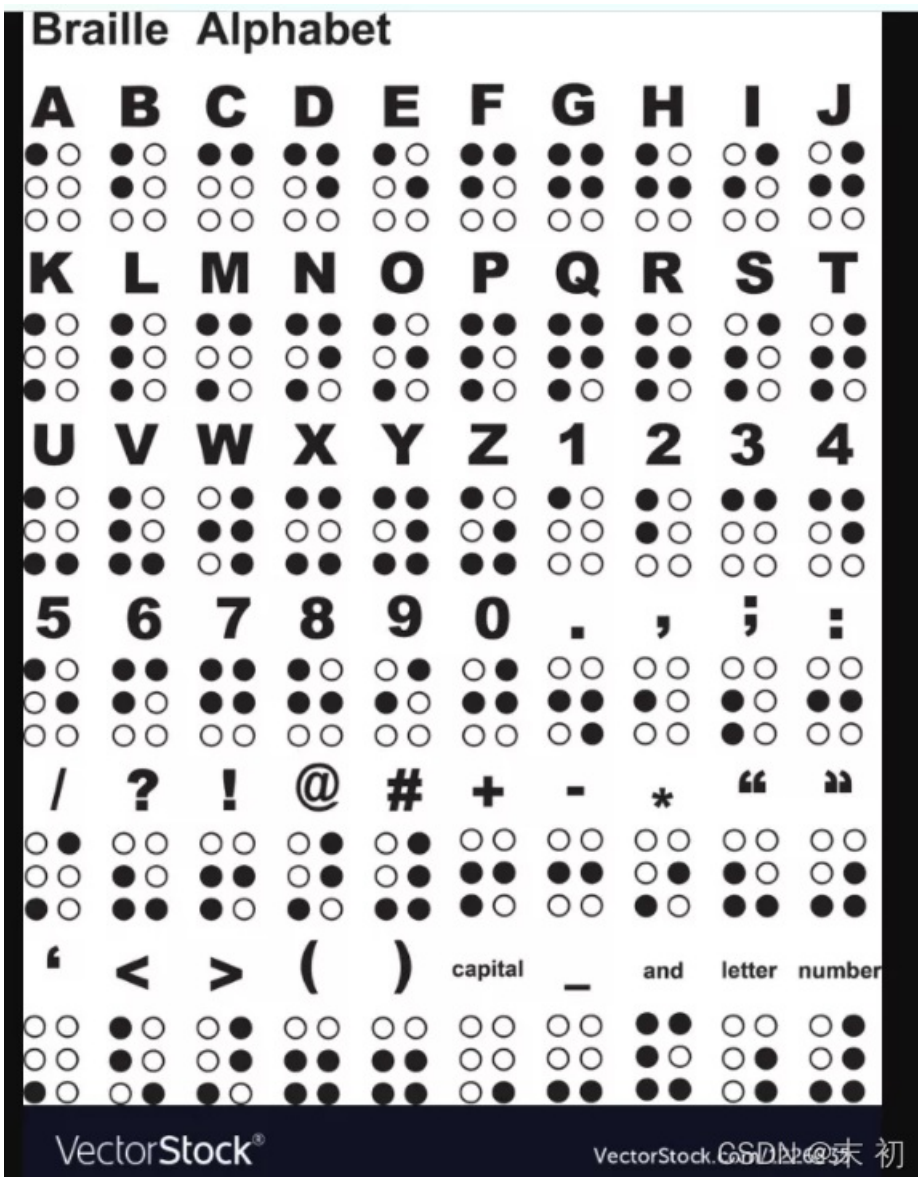
使用PS打开flag.png原图，分析图片上方的类似条码的东西。长：1920 宽：12







将这部分选中，提取出来的另存成另一张图片，尝试二进制、二维码都无果，之后发现可以分成若干个 2\*3 的小块，类似盲文  
 测试前几个盲文，可发现数据内容是由十六进制组成，且是zip压缩包的字节流文件头  
 找一张比较标准的，含有数字和字母的盲文对照图



然后使用Python简单处理即可得到flag.zip

```
from PIL import Image
from binascii import *

img = Image.open('Braille.png')
```

```

width, height = img.size
num_map = [{"[0, 1, 1, 1, 0, 0]": "0"}, {"[1, 0, 0, 0, 0, 0]": "1"},
          {"[1, 0, 1, 0, 0, 0]": "2"}, {"[1, 1, 0, 0, 0, 0]": "3"},
          {"[1, 1, 0, 1, 0, 0]": "4"}, {"[1, 0, 0, 1, 0, 0]": "5"},
          {"[1, 1, 1, 0, 0, 0]": "6"}, {"[1, 1, 1, 1, 0, 0]": "7"},
          {"[1, 0, 1, 1, 0, 0]": "8"}, {"[0, 1, 1, 0, 0, 0]": "9"}]
alp_map = [{"[1, 0, 0, 0, 0, 0]": "a"}, {"[1, 0, 1, 0, 0, 0]": "b"},
          {"[1, 1, 0, 0, 0, 0]": "c"}, {"[1, 1, 0, 1, 0, 0]": "d"},
          {"[1, 0, 0, 1, 0, 0]": "e"}, {"[1, 1, 1, 0, 0, 0]": "f"}]
num_prefixes = [0, 1, 0, 1, 1, 1]

all_data = []
for h in range(height):
    row_data = []
    for w in range(width):
        pix = img.getpixel((w, h))
        if pix == (255, 255, 255):
            row_data.append(1)
        elif pix == (0, 0, 0):
            row_data.append(0)
        else:
            print(pix)
            break
    all_data.append(row_data)

def get_pix(row_idx, col_idx):
    sin_bra_data = []
    for r in range(row_idx, row_idx + 3):
        for c in range(col_idx, col_idx + 2):
            data = all_data[r][c]
            sin_bra_data.append(data)
    return sin_bra_data

all_bra = []
for r in range(0, height, 3):
    for c in range(0, width, 2):
        bra_code = get_pix(r, c)
        all_bra.append(bra_code)

res_data = ''
idx = 0
for i in range(len(all_bra)):
    if all_bra[i] == num_prefixes:
        for dic_num in num_map:
            try:
                res_data += dic_num[str(all_bra[idx+1])]
            except:
                pass
        idx += 1
    else:
        for dic_alp in alp_map:
            try:
                res_data += dic_alp[str(all_bra[idx+1])]
            except:
                pass
        idx += 1

with open('flag.zip', 'wb') as f:
    f.write(unhexlify(res_data))

```

名称	压缩后大小	原始大小	类型	修改日期	压缩方法
Future will lead.txt	612	1,765	TXT 文件	2022/2/19 17:15:46	Deflate

```

1  I<0x7f>king for t<0x7f> in t<0x7f>
2  d<0x7f>
3  <0x7f>
4  <0x7f>
5  <0x7f>
6  <0x7f>
7  <0x7f>
8  <0x7f>
9  <0x7f>
10 <0x7f>
11 <0x7f>
12 So<0x7f>
13 <0x7f>
14 <0x7f>
15 So that the darkness won't be approaching.
16 I caught a ray of light in a nightmare
17 as if it was the last hope for me.
18 However, so faint, also likely to disappear.
19
20
21 I saw a shooting star at the crack of dawn.
22 And it looked like snow rears that we live.
23 To still be like the stars, so I'll keep moving on.
24 I promise you right now.
25
26 So, would you take me back to glorious days
27 if I lost the right way to go.
28 And if you'd get lost, I'll reach out my hands too.
29 I hope we'll always support each other.
30
31 So, let me take you down to a radiant place.
32 If I'm with you, we can go anywhere.
33 I know it's fine.
34 The way of truth is calling.
35 The wind is on our side.
36
37 Can you see the sun peeking through the clouds?
38 Teachers never forget no matter when.
39 We can find the way no matter where we are.

```

一首歌的歌词：《The Ray of Light》

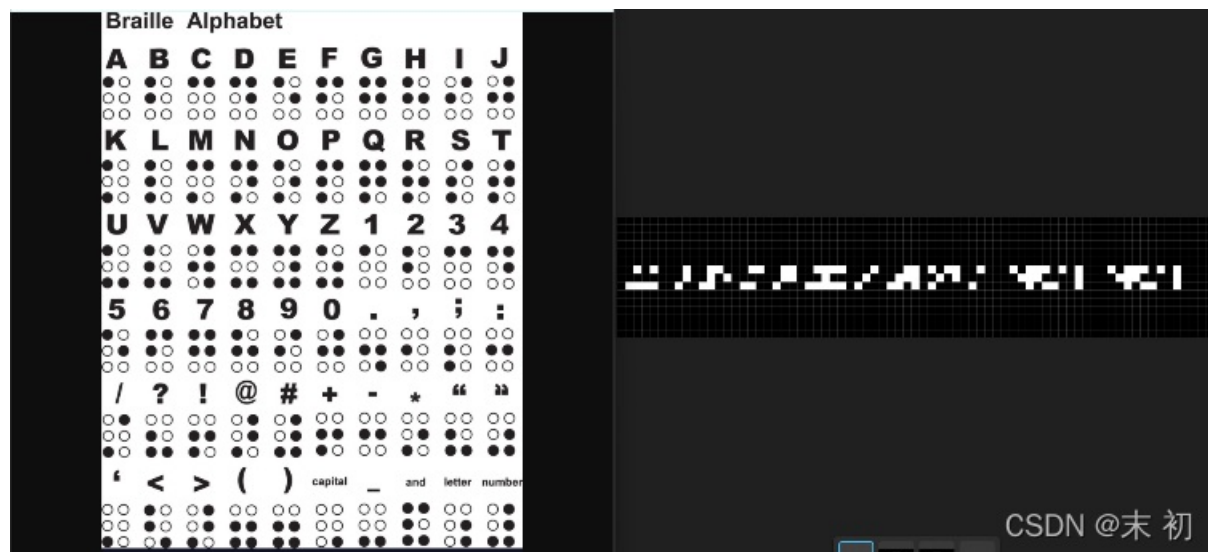
含有很多不可显示字符：<0x7f>，但是并非零宽度字符隐写，再尝试了字频、wbstego文本隐写等多种文本隐写方式无果之后，想到了之前做盲水印的时候还有一种文本盲水印

Text\_Blind\_WaterMark: [https://github.com/guofei9987/text\\_blind\\_watermark](https://github.com/guofei9987/text_blind_watermark)

但是缺少密码，密码很有可能在Apple并行端查看的另一张图片上，使用PS继续分析，在右下角可以发现还有一段类似原图的条码，继续尝试发现解出来的字符不对



多次尝试之后把图片发现顺时针旋转180度之后，可以解出来



注意有大小写字母区分  
得到如下

```
UkB5MGYxITl0dA equal equal
```

base64解码得到密码: `R@y0f1!9ht`

```
from text_blind_watermark import embed, extract

sentence_embed = open('Future will lead.txt').read()
password = 'R@y0f1!9ht'
wm_extract = extract(sentence_embed, password)
print("解出的盲水印")
print(wm_extract)
```



```
PS C:\Users\Administrator\Downloads> python .\code.py  
解出的盲水印  
b576241258a44b868ea25804b0ec1d4e  
PS C:\Users\Administrator\Downloads> |
```

**置顶** WannaWacca更新题目描述: 请使用 d3ctf{} 包裹 flag

Wacca运维-Akira 发表于 昨天 19:46

该公告需要你确认收到

确认收到  
CSDN@未初

```
d3ctf{b576241258a44b868ea25804b0ec1d4e}
```



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