【MISC怼题入门系列】BUU-MISC-page2

原创

Em0s_Er1t 于 2021-05-31 20:45:48 发布 581 收藏 2

分类专栏： CTF-MISC 文章标签： python 加密解密 bmp 编码学

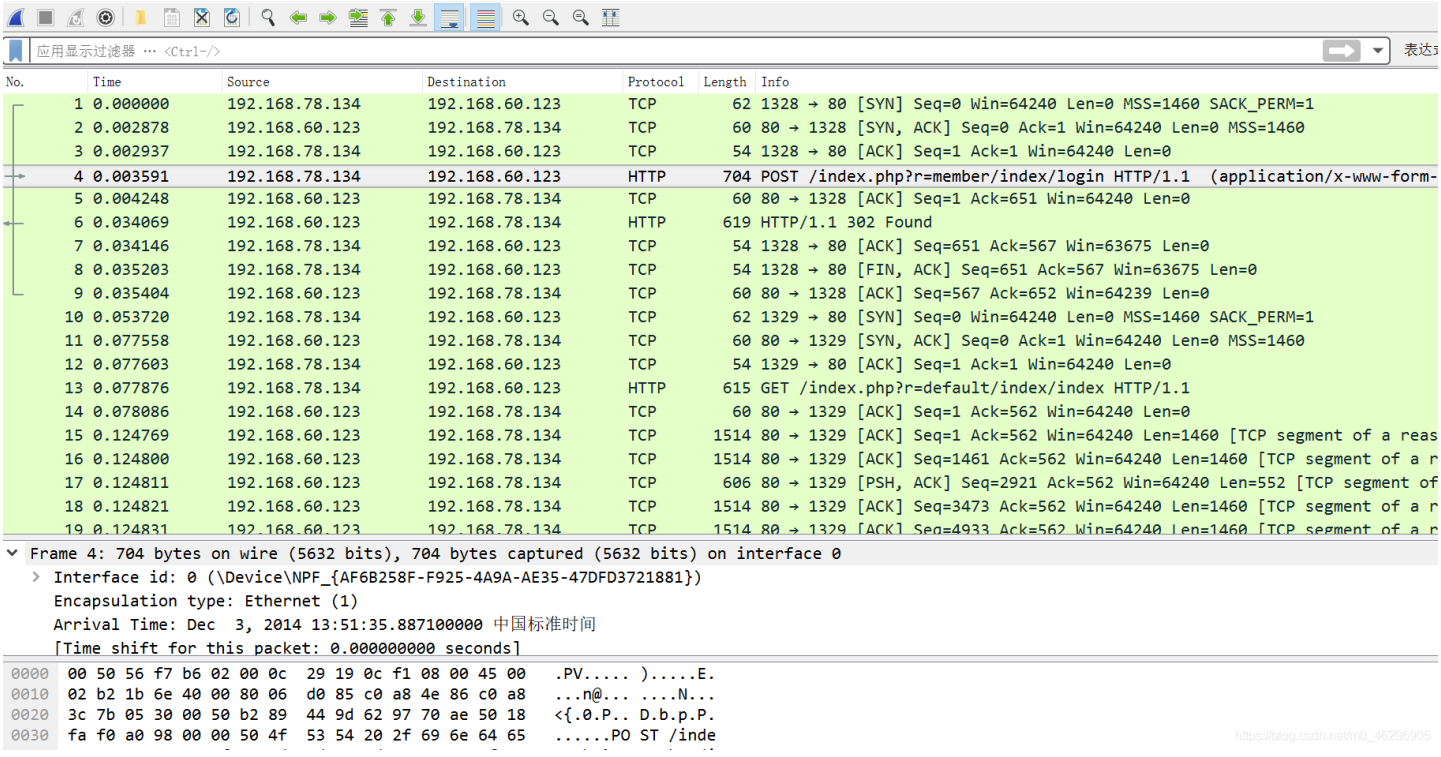
buu-misc系列第二页的wp来了

BUU-MISC-page2-wp：

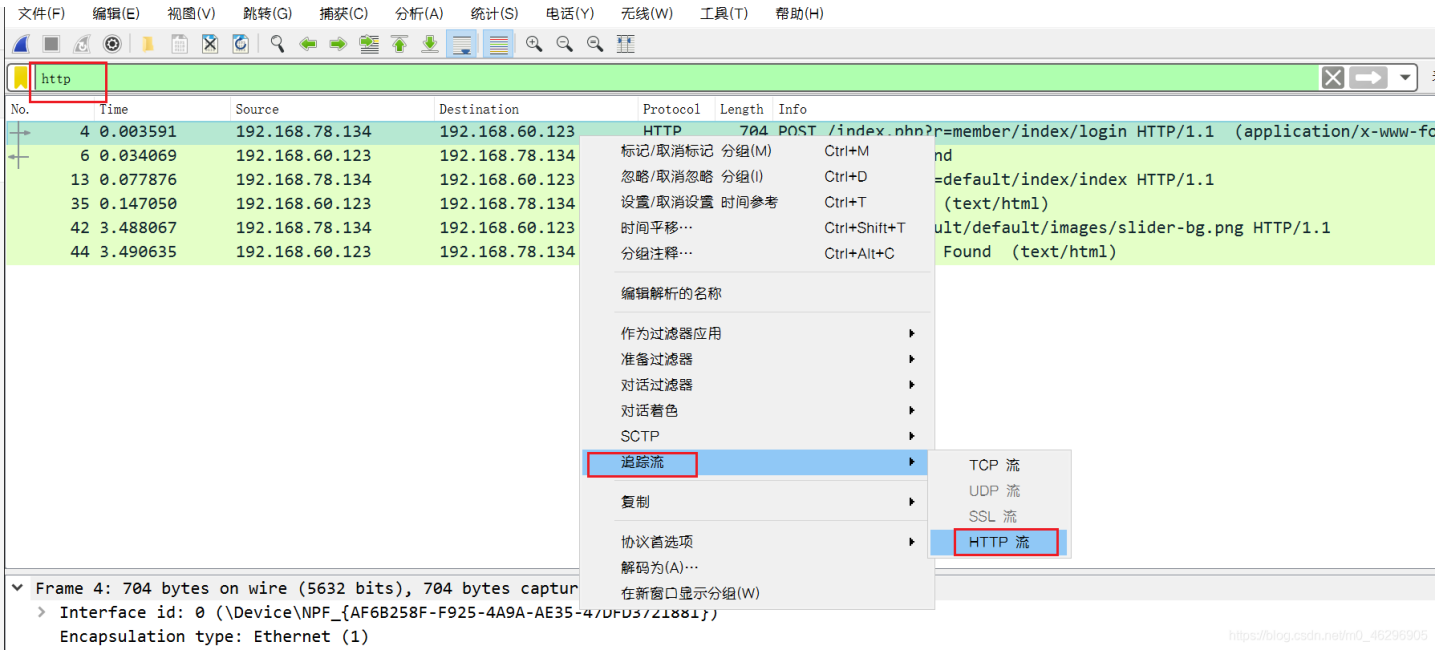
0x00 被劫持的神秘礼物

题目：
某天小明收到了一件很特别的礼物，有奇怪的后缀，奇怪的名字和格式。小明找到了知心姐姐度娘，度娘好像知道这是啥，但是度娘也不知道里面是啥。。。你帮帮小明？找到帐号密码，串在一起，用32位小写MD5哈希一下得到的就是答案。 链接:
https://pan.baidu.com/s/1pwVVpA5_WWY8Og6dhCcWRw 提取码: 31vk

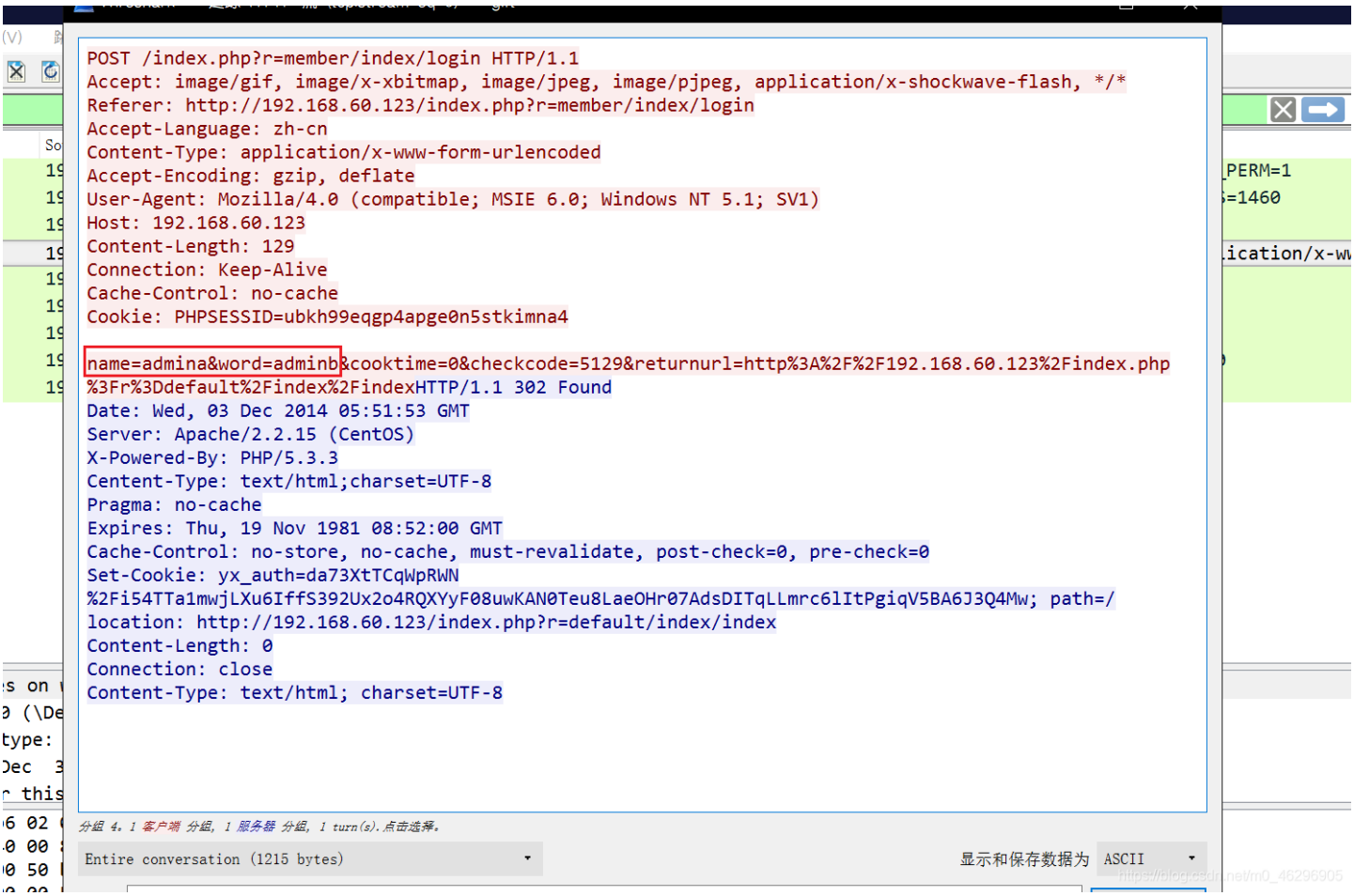
`.pcapng`文件，用wireshark打开，



输入`http`过滤一下http流，右键追踪

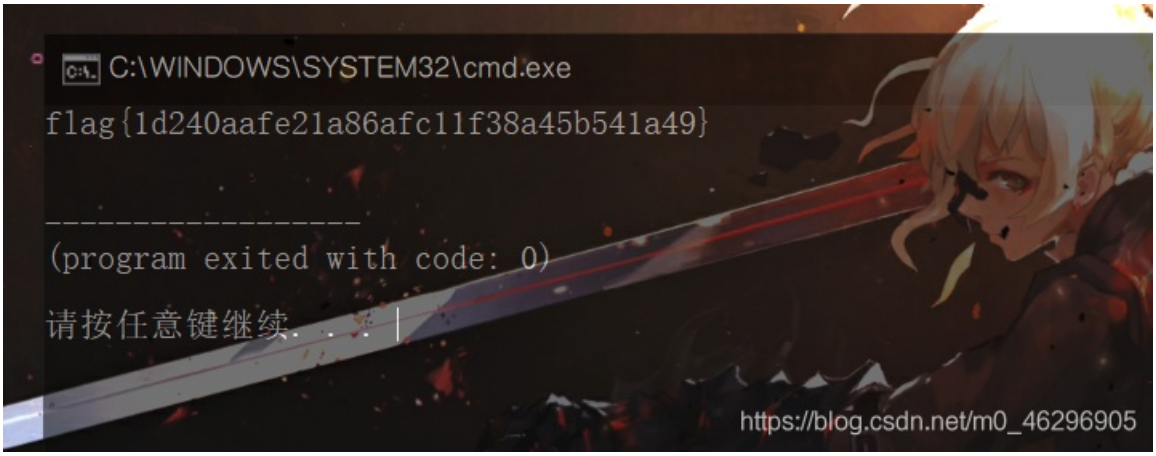


找到用户名是`admina`和密码是`adminb`



题目说是`找到帐号密码，串在一起，用32位小写MD5哈希一下得到的就是答案`，写个exp哈希一下吧

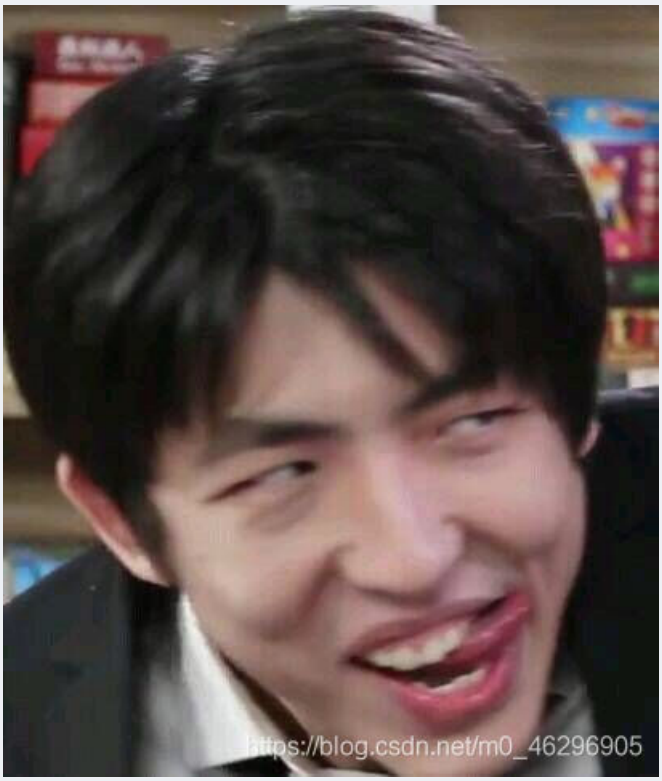
```
import hashlib
m=hashlib.md5()
m.update("adminaadminb".encode('utf-8'))
print('flag{'+m.hexdigest()+'}')
```




```
flag{1d240aafe21a86afc11f38a45b541a49}
```

0x01 刷新过的图片

> 题目：
> 浏览图片的时候刷新键有没有用呢



通过这道题知道了一个新的隐写方式——`F5`隐写

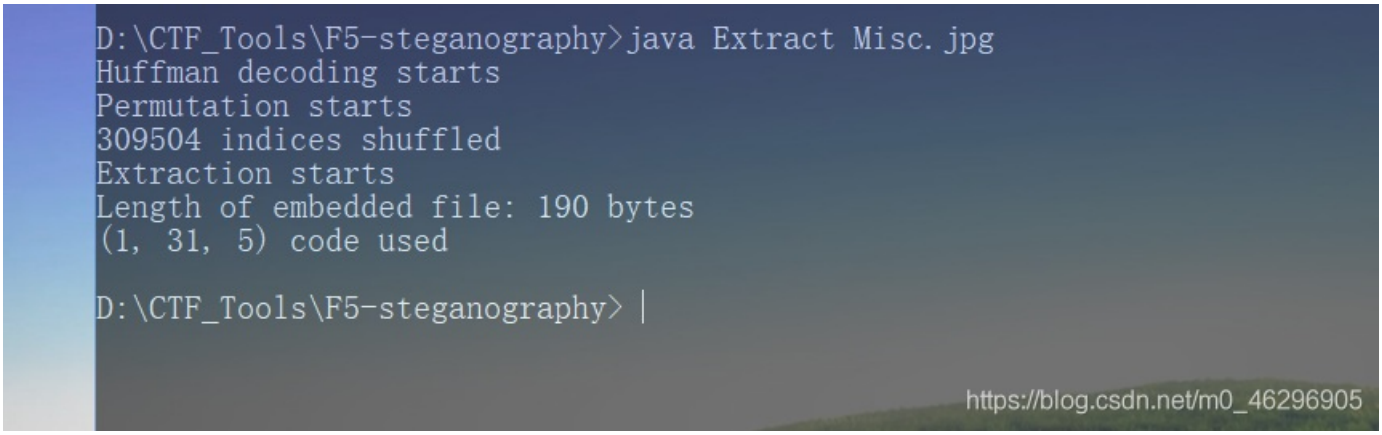
（1）F5隐写

参考另一篇博客——【隐写术】F5隐写

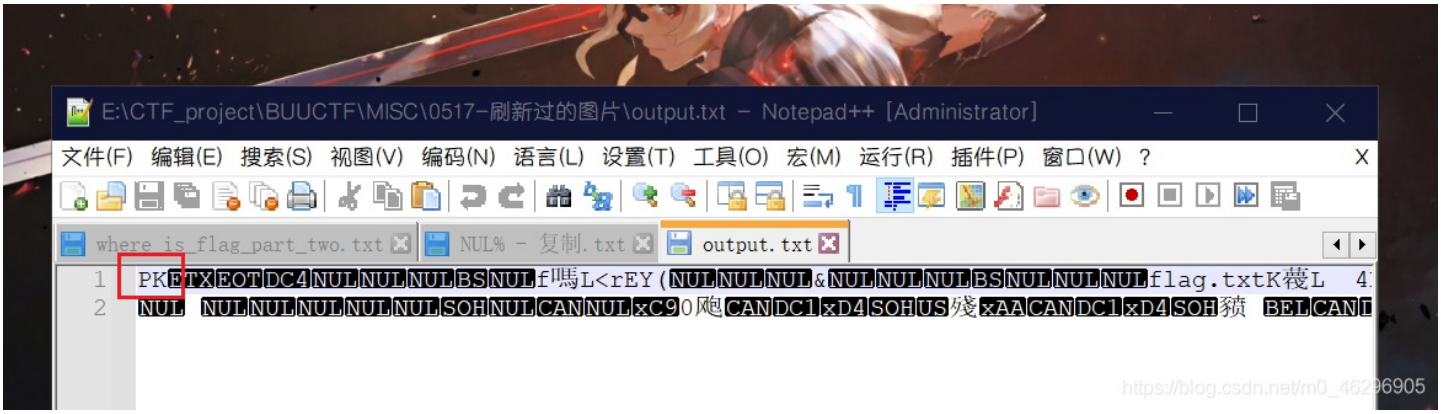
先在电脑上安装一下，https://github.com/matthewgao/F5-steganography，解压即可用

安装目录下命令行输入

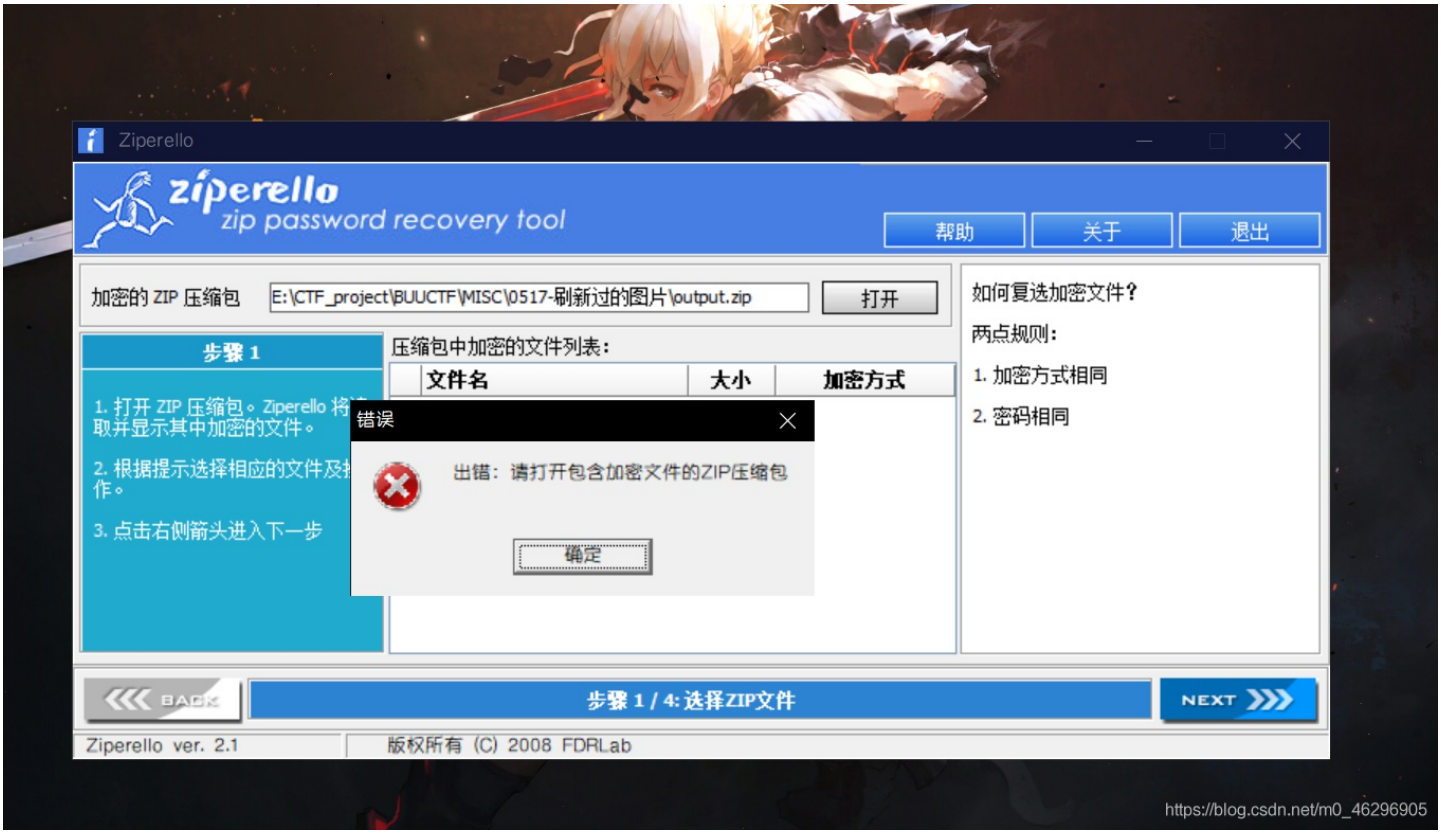
```
java Extract Misc.jpg
```



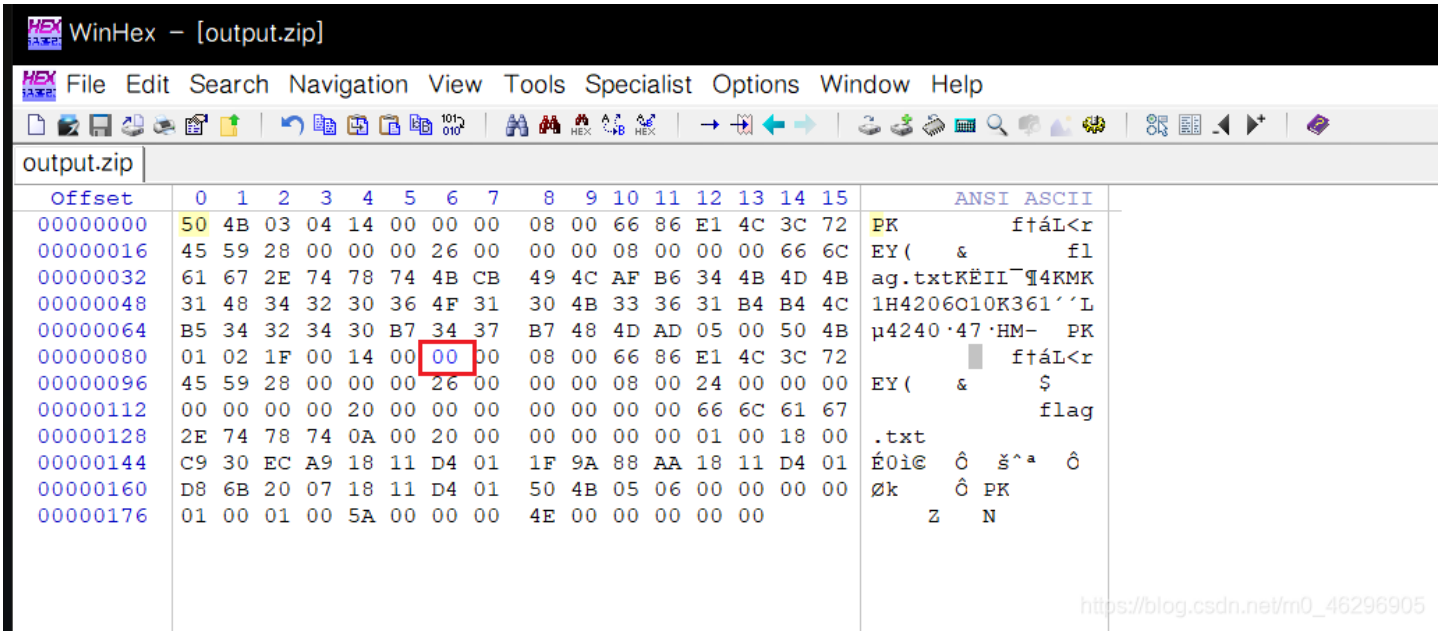
提取出output.txt文件



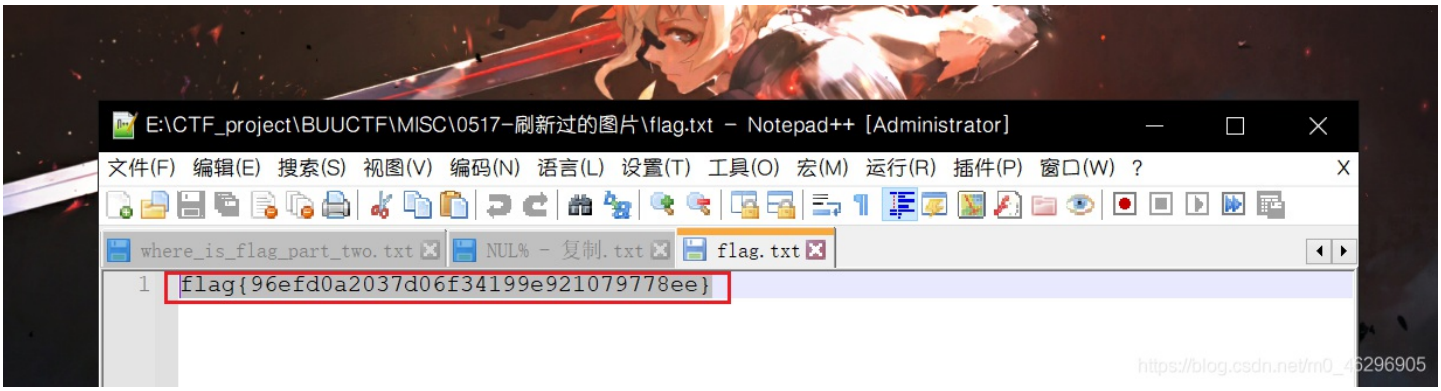
以`PK`开头，那就改后缀为zip，放到`ziperello`破解一下压缩密码，但显示无密码，推测是伪加密



`winhex`打开output.zip文件，改完后保存



解压得到flag

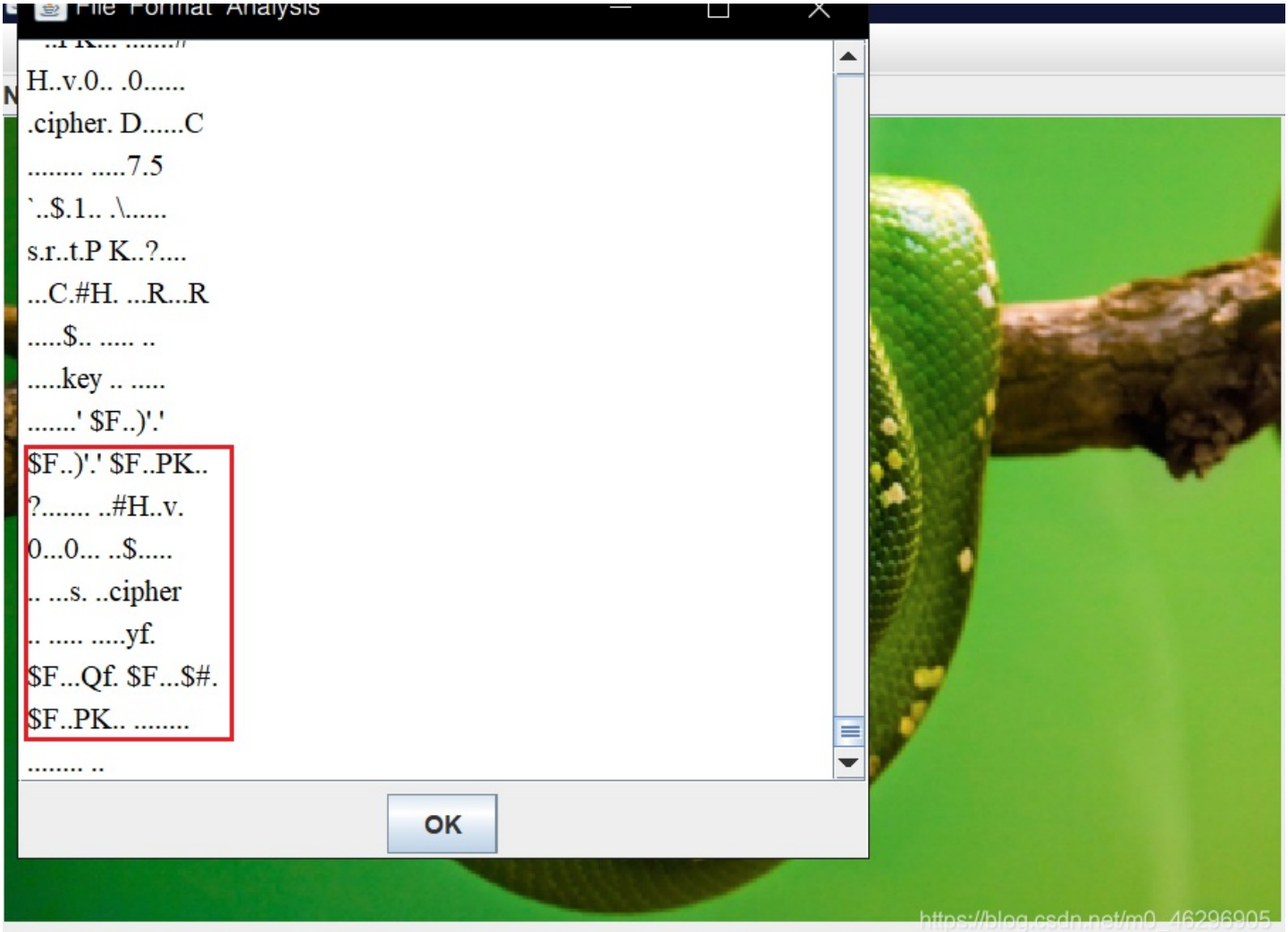



```
flag{96efd0a2037d06f34199e921079778ee}
```

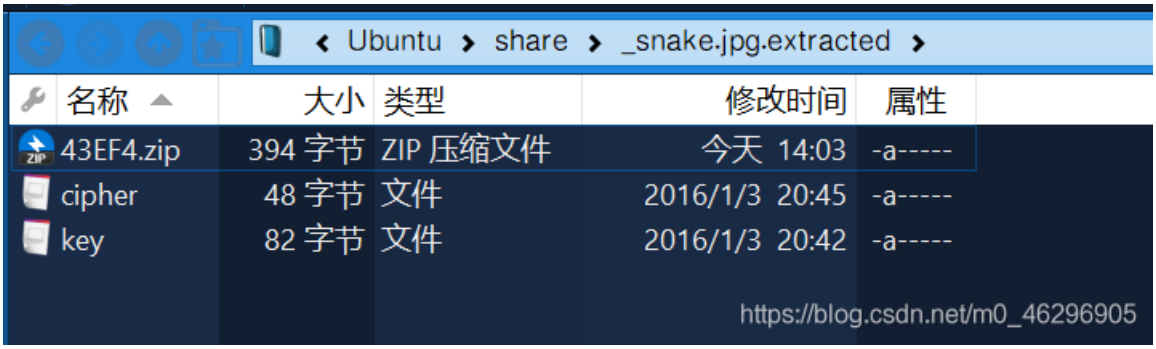
0x02 snake

题目：

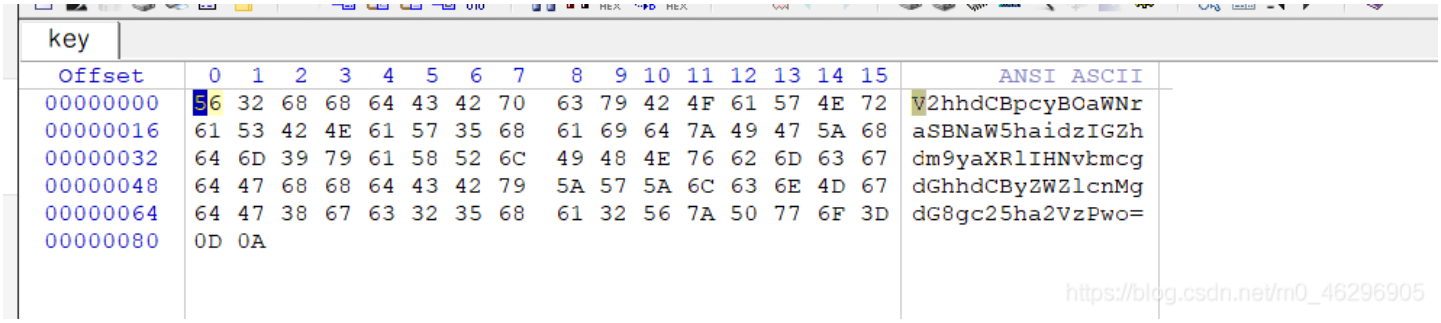
stegsolve打开看看Format Analysis，直接拉到文件最后，发现了压缩包的头文件字符PK，还发现了一些似乎是文件名称的字符，猜测有隐藏文件，



binwalk提取一下看看，得到三个文件，zip有密码，密码应该是通过另外两个文件解得的明文。



winhex打开key文件看看密钥，是个base64编码的字符串

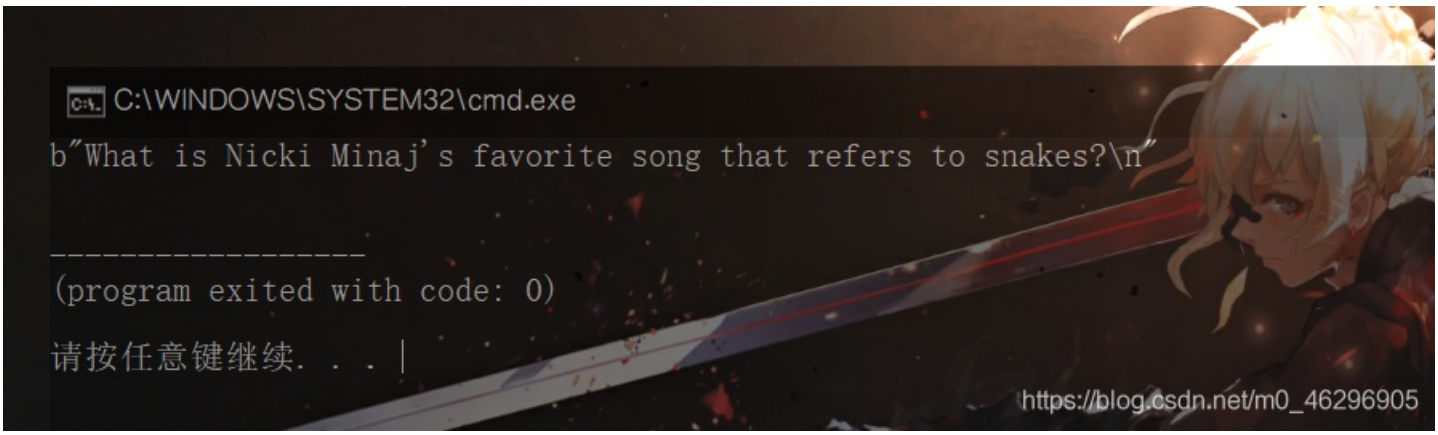



```
V2hhdCBpcyBOaWNraSBNaW5haidzIGZhdm9yaXRlIHNvbmcgdGhhdCByZWZlcnMgdG8gc25ha2VzPwo=
```

写个exp解一下

```
import base64
print(base64.b64decode('V2hhdCBpcyBOaWNraSBNaW5haidzIGZhdm9yaXRlIHNvbmcgdGhhdCByZWZlcnMgdG8gc25ha2VzPwo='))
```

得到密钥




```
What is Nicki Minaj's favorite song that refers to snakes?\n
```

Nicki Minaj是个歌手，出过的关于蛇的专辑是Anaconda，anaconda就是密钥了。

现在只剩不知道加密方式了，打开密文文件看看，没有发现什么

cipher

Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	ANSI ASCII
00000000	DC	44	15	8C	D6	A2	83	B5	43	B4	12	F7	16	A7	D1	FD	ÜD ŒÖ¢ƒµC´ ÷ §Ñý
00000016	D2	10	D8	EB	9E	89	37	E2	35	60	F9	EE	24	01	31	BF	Ò ØëžŠ7â5`ùî$ 1¿
00000032	1C	E7	5C	AB	B6	8E	BF	DA	83	73	0C	72	8D	BC	74	8D	ç\«¶Ž¿Úfs r ¼t

参考别的博主的wp知道用的是serpent加密（serpent译为蛇），这个算法当时跟Rijndael算法一同参与AES投标，虽然落选，但却比Rijndael更为安全

serpent在线解密

解得flag

Serpent – Symmetric Ciphers Online

Input type: File

File: C:\fakepath\cipher Browse

Function: SERPENT

Mode: ECB (electronic codebook)

Key: (plain) anaconda

Plaintext Hex

> Encrypt! > Decrypt!

0%

File was uploaded.

Decrypted text:

00000000	43	54	46	7b	77	68	6f	5f	6b	6e	65	77	5f	73	65	72
00000010	70	65	6e	74	5f	63	69	70	68	65	72	5f	65	78	69	73
00000020	74	65	64	7d	00	00	00	00	00	00	00	00	00	00	00	00

CTF{who_knew_serpent_cipher_existed}..

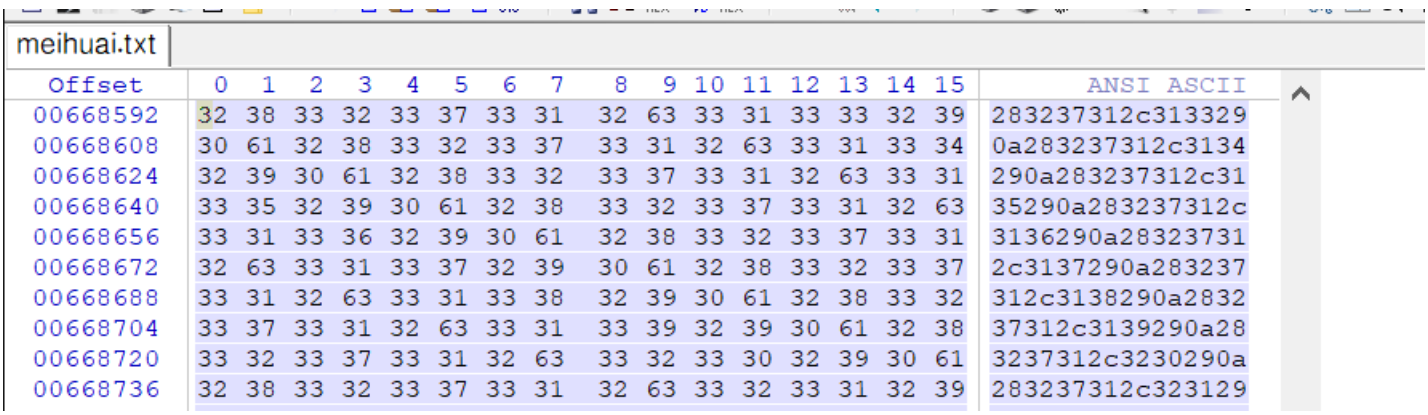
```
flag{who_knew_serpent_cipher_existed}
```

0x03 梅花香之苦寒来

题目：

右键看看图片属性。提示我们flag藏在图片的最后。画图？？

winhex打开，图片后面全是一大串数据，看着好像有些规律



```
00668752  30 61 32 38 33 32 33 37  33 31 32 63 33 32 33 32  0a283237312c3232
00668768  32 39 30 61 32 38 33 32  33 37 33 31 32 63 33 32  290a283237312c32
00668784  33 33 32 39 30 61 32 38  33 32 33 37 33 31 32 63  33290a283237312c
00668800  33 32 33 34 32 39 30 61  32 38 33 32 33 37 33 31  3234290a28323731
00668816  32 63 33 32 33 35 32 39  30 61 32 38 33 32 33 37  2c3235290a283237
00668832  33 31 32 63 33 32 33 36  32 39 30 61 32 38 33 32  312c3236290a2832
00668848  33 37 33 31 32 63 33 32  33 37 32 39 30 61 32 38  37312c3237290a28
00668864  33 32 33 37 33 31 32 63  33 32 33 38 32 39 30 61  3237312c3238290a
00668880  32 38 33 32 33 37 33 31  32 63 33 32 33 39 32 39  283237312c323929
00668896  30 61 32 38 33 32 33 37  33 31 32 63 33 33 33 30  0a283237312c3330
00668912  32 39 30 61 32 38 33 32  33 37 33 31 32 63 33 33  290a283237312c33
00668928  33 31 32 39 30 61 32 38  33 32 33 37 33 31 32 63  31290a283237312c
00668944  33 33 33 32 32 39 30 61  32 38 33 32 33 37 33 31  3332290a28323731
00668960  32 63 33 33 33 33 32 39  30 61 32 38 33 32 33 37  2c3333290a283237
00668976  33 31 32 63 33 33 33 34  32 39 30 61 32 38 33 32  312c3334290a2832
00668992  33 37 33 31 32 63 33 33  33 35 32 39 30 61 32 38  37312c3335290a28
00669008  33 32 33 37 33 31 32 63  33 33 33 36 32 39 30 61  3237312c3336290a
00669024  32 38 33 32 33 37 33 31  32 63 33 33 33 37 32 39  283237312c333729
00669040  30 61 32 38 33 32 33 37  33 31 32 63 33 33 33 38  0a283237312c3338
00669056  32 39 30 61 32 38 33 32  33 37 33 31 32 63 33 33  290a283237312c33
00669072  33 39 32 39 30 61 32 38  33 32 33 37 33 31 32 63  39290a283237312c
00669088  33 34 33 30 32 39 30 61  32 38 33 32 33 37 33 31  3430290a28323731
00669104  32 63 33 34 33 31 32 39  30 61 32 38 33 32 33 37  2c3431290a283237
00669120  33 31 32 63 33 34 33 32  32 39 30 61 32 38 33 32  312c3432290a2832
00669136  33 37 33 31 32 63 33 34  33 33 32 39 30 61 32 38  37312c3433290a28
00669152  33 32 33 37 33 31 32 63  33 34 33 34 32 39 30 61  3237312c3434290a
00669168  32 38 33 32 33 37 33 31  32 63 33 34 33 35 32 39  283237312c343529
00669184  30 61 32 38 33 32 33 37  33 31 32 63 33 34 33 36  0a283237312c3436
00669200  32 39 30 61 32 38 33 32  33 37 33 31 32 63 33 34  290a283237312c34
00669216  33 37 32 39 30 61 32 38  33 32 33 37 33 31 32 63  37290a283237312c
00669232  33 34 33 38 32 39 30 61  32 38 33 32 33 37 33 31  3438290a28323731
00669248  32 63 33 34 33 39 32 39  30 61 32 38 33 32 33 37  2c3439290a283237
00669264  33 31 32 63 33 35 33 30  32 39 30 61 32 38 33 32  312c3530290a2832
00669280  33 37 33 31 32 63 33 35  33 31 32 39 30 61 32 38  37312c3531290a28
```

随便找了一串ASCII编码一下，发现输出坐标，推测应该是填充坐标得到flag，这就是所谓的画图吧

```
import binascii
import matplotlib.pyplot
import numpy
f=open('meihuai.jpg','rb').read()
f=f[6+21232:]      #获取f从6+21232往后的代表坐标的字节型数据
f=binascii.unhexlify(f.decode()).decode()
f=f.split('\n')    #以换行符划分字符串放入列表
o=open('out','w')  #创建一个文件
for i in f:
    o.write(i.strip('()')+'\n')#每一个代表坐标的字符串元素去掉括号之后添加换行符写入文件
o.close()
x,y=numpy.loadtxt('out',delimiter=',',unpack=True)#获取坐标数据
matplotlib.pyplot.plot(x,y,'.')
matplotlib.pyplot.show()
```

得到一个二维码

得到flag

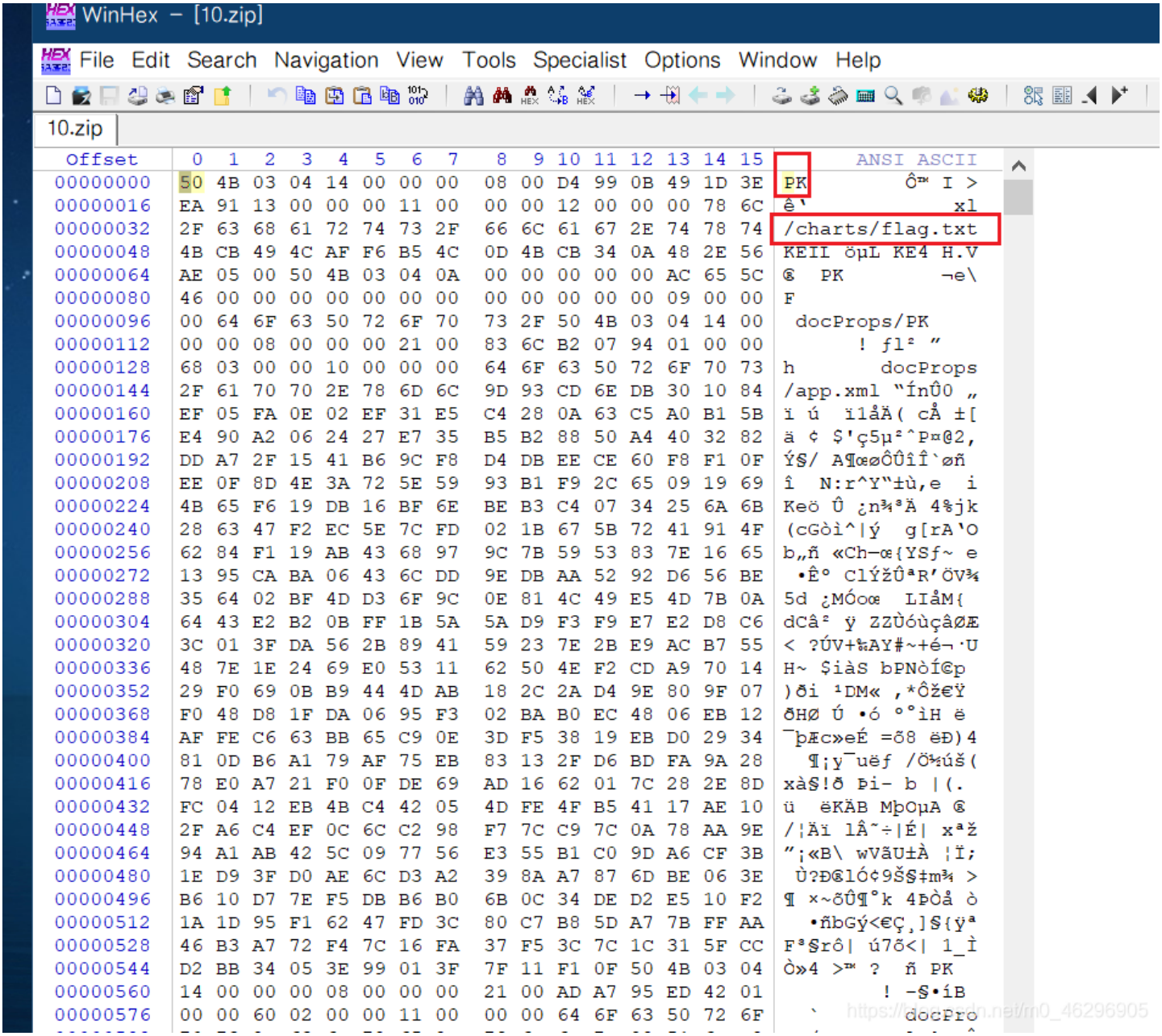
```
flag{40fc0a979f759c8892f4dc045e28b820}
```

0x04 菜刀666

> 题目：
> 流量分析，你能找到flag吗

0x05 [BJDCTF2020]认真你就输了

是个zip压缩包，还看到了flag所在的路径



Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	ANSI ASCII
00000000	50	4B	03	04	14	00	00	00	08	00	D4	99	0B	49	1D	3E	PK Ô™ I >
00000016	EA	91	13	00	00	00	11	00	00	00	12	00	00	00	78	6C	ê‘ xl
00000032	2F	63	68	61	72	74	73	2F	66	6C	61	67	2E	74	78	74	/charts/flag.txt
00000048	4B	CB	49	4C	AF	F6	B5	4C	0D	4B	CB	34	0A	48	2E	56	KËIL ¯öµL KË4 H.V
00000064	AE	05	00	50	4B	03	04	0A	00	00	00	00	00	AC	65	5C	® PK ¬e\
00000080	46	00	00	00	00	00	00	00	00	00	00	00	00	09	00	00	F
00000096	00	64	6F	63	50	72	6F	70	73	2F	50	4B	03	04	14	00	docProps/PK
00000112	00	00	08	00	00	00	21	00	83	6C	B2	07	94	01	00	00	! fl² ”
00000128	68	03	00	00	10	00	00	00	64	6F	63	50	72	6F	70	73	h docProps
00000144	2F	61	70	70	2E	78	6D	6C	9D	93	CD	6E	DB	30	10	84	/app.xml “ÍnÛ0 „
00000160	EF	05	FA	0E	02	EF	31	E5	C4	28	0A	63	C5	A0	B1	5B	ï ú ï1åÄ(cÅ ±[
00000176	E4	90	A2	06	24	27	E7	35	B5	B2	88	50	A4	40	32	82	ä ¢ $'ç5µ²ˆP¤@2,
00000192	DD	A7	2F	15	41	B6	9C	F8	D4	DB	EE	CE	60	F8	F1	0F	Ý§/ A¶œøÔÛîÎ`øñ
00000208	EE	0F	8D	4E	3A	72	5E	59	93	B1	F9	2C	65	09	19	69	î N:r^Y“±ù,e i
00000224	4B	65	F6	19	DB	16	BF	6E	BE	B3	C4	07	34	25	6A	6B	Keö Û ¿n¾³Ä 4%jk
00000240	28	63	47	F2	EC	5E	7C	FD	02	1B	67	5B	72	41	91	4F	(cGòì^|ý g[rA‘O
00000256	62	84	F1	19	AB	43	68	97	9C	7B	59	53	83	7E	16	65	b„ñ «Ch—œ{YSƒ~ e
00000272	13	95	CA	BA	06	43	6C	DD	9E	DB	AA	52	92	D6	56	BE	•Ê° ClÝžÛªR’ÖV¾
00000288	35	64	02	BF	4D	D3	6F	9C	0E	81	4C	49	E5	4D	7B	0A	5d ¿MÓoœ LIåM{
00000304	64	43	E2	B2	0B	FF	1B	5A	5A	D9	F3	F9	E7	E2	D8	C6	dCâ² ÿ ZZÙóùçâØÆ
00000320	3C	01	3F	DA	56	2B	89	41	59	23	7E	2B	E9	AC	B7	55	< ?ÚV+‰AY#~+é¬ ·U
00000336	48	7E	1E	24	69	E0	53	11	62	50	4E	F2	CD	A9	70	14	H~ $iàS bPNòÍ©p
00000352	29	F0	69	0B	B9	44	4D	AB	18	2C	2A	D4	9E	80	9F	07	)ði ¹DM« ,*Ô€Ÿ
00000368	F0	48	D8	1F	DA	06	95	F3	02	BA	B0	EC	48	06	EB	12	ðHØ Ú •ó °°ìH ë
00000384	AF	FE	C6	63	BB	65	C9	0E	3D	F5	38	19	EB	D0	29	34	¯þÆc»eÉ =õ8 ëÐ)4
00000400	81	0D	B6	A1	79	AF	75	EB	83	13	2F	D6	BD	FA	9A	28	¶¡y¯uëƒ /Ö½úš(
00000416	78	E0	A7	21	F0	0F	DE	69	AD	16	62	01	7C	28	2E	8D	xà§!ð Þi- b |(.
00000432	FC	04	12	EB	4B	C4	42	05	4D	FE	4F	B5	41	17	AE	10	ü ëKÄB MþOµA ®
00000448	2F	A6	C4	EF	0C	6C	C2	98	F7	7C	C9	7C	0A	78	AA	9E	/¦Äï lÂ˜÷|É| xªž
00000464	94	A1	AB	42	5C	09	77	56	E3	55	B1	C0	9D	A6	CF	3B	”¡«B\ wVãU±À ¦Ï;
00000480	1E	D9	3F	D0	AE	6C	D3	A2	39	8A	A7	87	6D	BE	06	3E	Ù?Ð®lÓ¢9Š§‡m¾ >
00000496	B6	10	D7	7E	F5	DB	B6	B0	6B	0C	34	DE	D2	E5	10	F2	¶ ×~õÛ¶°k 4ÞÒå ò
00000512	1A	1D	95	F1	62	47	FD	3C	80	C7	B8	5D	A7	7B	FF	AA	•ñbGý<€Ç¸]§{ÿª
00000528	46	B3	A7	72	F4	7C	16	FA	37	F5	3C	7C	1C	31	5F	CC	F³§rô| ú7õ<| 1_Ì
00000544	D2	BB	34	05	3E	99	01	3F	7F	11	F1	0F	50	4B	03	04	Ò»4 >™ ? ñ PK
00000560	14	00	00	00	08	00	00	00	21	00	AD	A7	95	ED	42	01	! -§•íB
00000576	00	00	60	02	00	00	11	00	00	00	64	6F	63	50	72	6F	` docPro

解压后进入xl的charts文件夹，找到flag

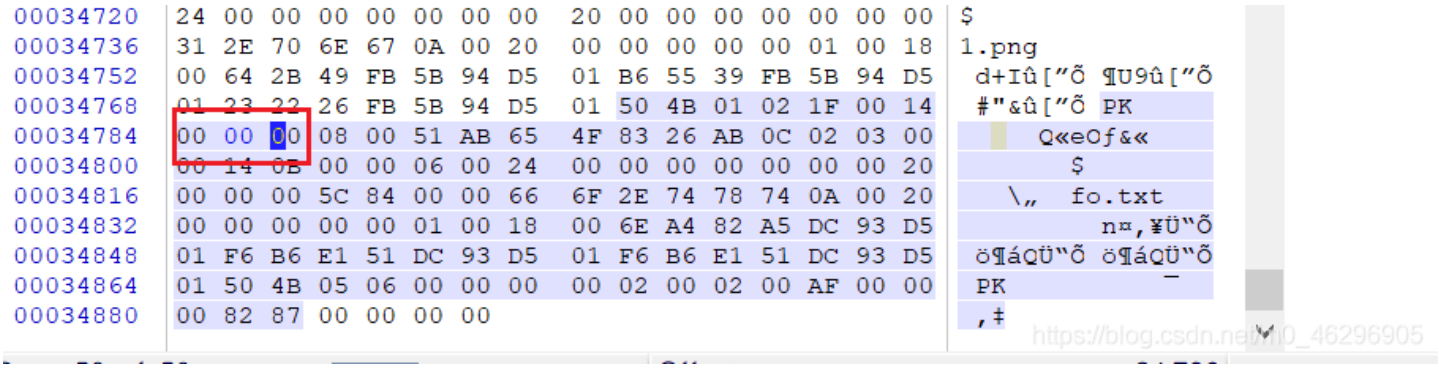
```
flag{M9eVfi2Pcs#}
```

0x06 被偷走的文件

题目：
一黑客入侵了某公司盗取了重要的机密文件，还好管理员记录了文件被盗走时的流量，请分析该流量，分析出该黑客盗走了什么文件。

0x07 [GXYCTF2019]佛系青年

是个伪加密，修改后保存



得到fo.txt内容如下

佛曰：遮等諳勝能礙皤藐哆娑梵迦侄羅哆迦梵者梵楞蘇涅侄室實真缽朋能。奢怛俱道怯都諳怖梵尼怯一罰心缽謹缽薩苦奢夢怯帝梵遠朋陀諳陀穆諳所吶知涅侄以薩怯想夷奢醯數羅怯諸

是与佛论禅加密，在线网站解密得到flag，


```
flag{w0_fo_ci_Be1}
```

0x08 [BJDCTF2020]藏藏藏

这题要用`foremost`提取隐写文件，linux里安装一下，

```
sudo apt-get foremost
```

待提取文件所在目录下命令行输入

```
foremost 藏藏藏.jpg
```

生成了一个output文件夹，

提取出内容得到flag


```
flag{you are the best!}
```

0x09 秘密文件

0x0A [BJDCTF2020]你猜我是个啥

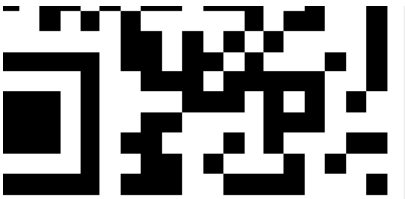
winhex打开，是个png的图片，

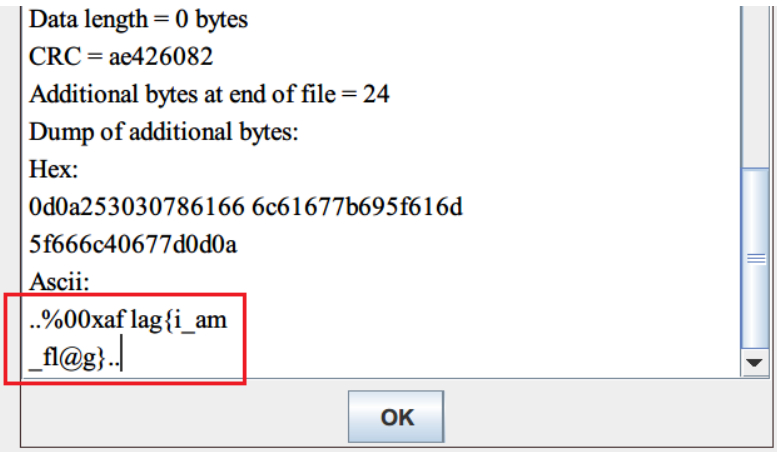
Offset	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	ANSI ASCII
00000000	89	50	4E	47	0D	0A	1A	0A	00	00	00	0D	49	48	44	52	‰PNG IHDR
00000016	00	00	00	F5	00	00	01	00	08	06	00	00	00	6B	99	30	õ k™0
00000032	7B	00	00	04	7C	49	44	41	54	78	9C	ED	DD	41	6E	1B	{ |IDATxœíÝAn
00000048	31	14	05	C1	28	C8	FD	AF	EC	C4	17	10	44	60	7E	48	1 Á(Èý¯ìÄ D`~H
00000064	B6	AB	B6	01	EC	89	A4	06	37	CF	D4	EB	EB	9F	5F	40	¶«¶ ì‰¤ 7ÏÔëëŸ_@
00000080	C6	EF	DD	0F	00	3C	4B	D4	10	23	6A	88	11	35	C4	88	ÆïÝ <KÔ #jˆ 5Äˆ
00000096	1A	62	44	0D	31	A2	86	18	51	43	8C	A8	21	46	D4	10	bD 1¢† QCŒ¨!FÔ
00000112	23	6A	88	11	35	C4	FC	79	F7	8F	AF	D7	EB	7F	3D	47	#jˆ 5Äüy÷ ¯×ë =G
00000128	C2	CA	DF	C6	4C	BD	B6	53	7F	9F	B3	F2	BC	27	BC	0E	ÂÊßÆL½¶S Ÿ³ò¼'¼
00000144	55	9F	BC	B6	4E	6A	88	11	35	C4	88	1A	62	44	0D	31	UŸ¼¶Njˆ 5Äˆ bD 1
00000160	A2	86	18	51	43	8C	A8	21	46	D4	10	23	6A	88	11	35	¢† QCŒ¨!FÔ #jˆ 5
00000176	C4	BC	9D	89	AE	28	5F	1F	3E	31	65	3C	61	CE	B9	62	Ä¼ ‰®(_ >1e<aÎ¹b
00000192	F7	FB	BB	FB	F7	4F	7A	FA	3D	73	52	43	8C	A8	21	46	÷û»û÷Ozú=sRCŒ¨!F
00000208	D4	10	23	6A	88	11	35	C4	88	1A	62	44	0D	31	A2	86	Ô #jˆ 5Äˆ bD 1¢†
00000224	18	51	43	8C	A8	21	E6	B1	99	E8	8A	13	6E	90	DC	3D	QCŒ¨!æ±™èŠ n Ü=
00000240	3B	BC	6D	CE	39	75	9B	E8	84	9F	FE	F9	72	52	43	8C	;¼mÎ9u›è„ŸþùrRCŒ
00000256	A8	21	46	D4	10	23	6A	88	11	35	C4	88	1A	62	44	0D	¨!FÔ #jˆ 5Äˆ bD
00000272	31	A2	86	18	51	43	8C	A8	21	66	CB	4C	94	B9	2F	66	1¢† QCŒ¨!fËL”¹/f
00000288	BF	6D	7E	CA	F3	9C	D4	10	23	6A	88	11	35	C4	88	1A	¿m~ÊóœÔ #jˆ 5Äˆ
00000304	62	44	0D	31	A2	86	18	51	43	8C	A8	21	46	D4	10	23	bD 1¢† QCŒ¨!FÔ #

改一下后缀，提取二维码内容，没找到flag，

Stegsolve打开分析file format文件格式，或者直接winhex下拉到最后看字符，可以看到一个像flag的，提交后发现是正确的flag，

```
flag{i_am_fl@g}
```



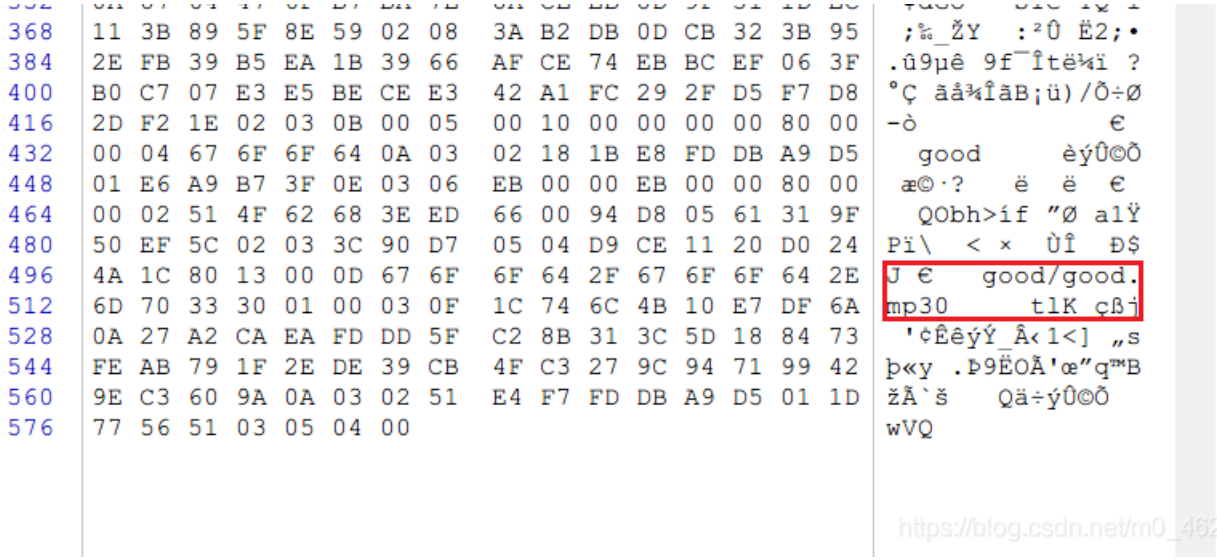


0x0B [SWPU2019]神奇的二维码

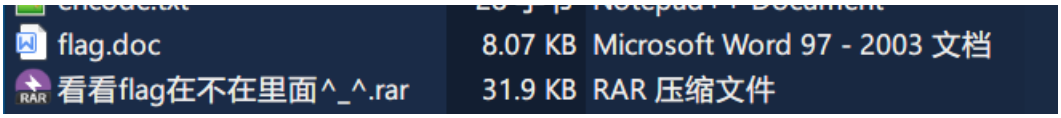
题目：

二维码里没找到flag，

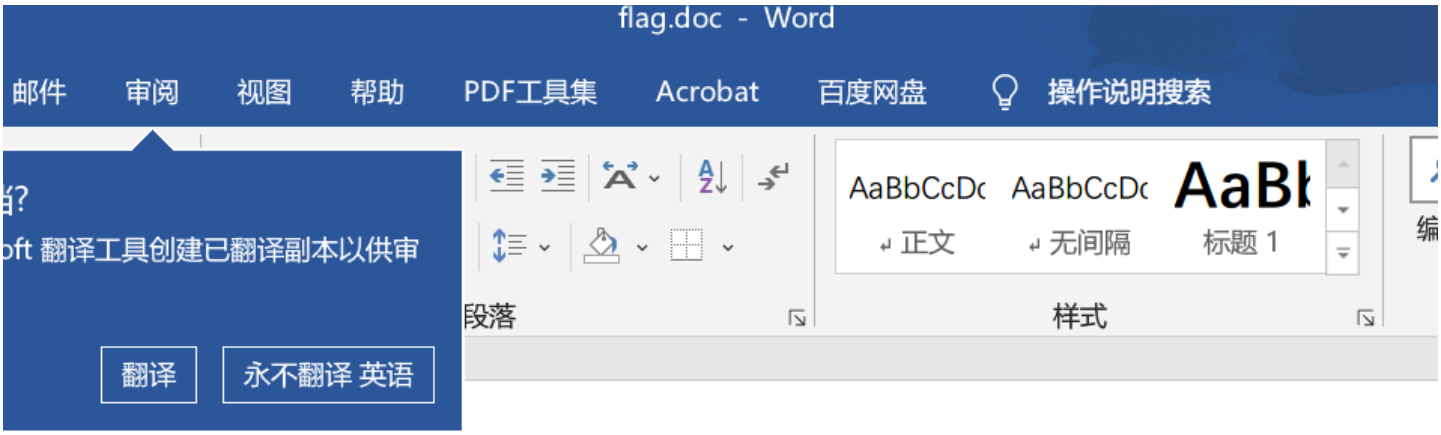
winhex打开，发现隐写了文件



用`binwalk`提取出来，罗列提取出的文件如下



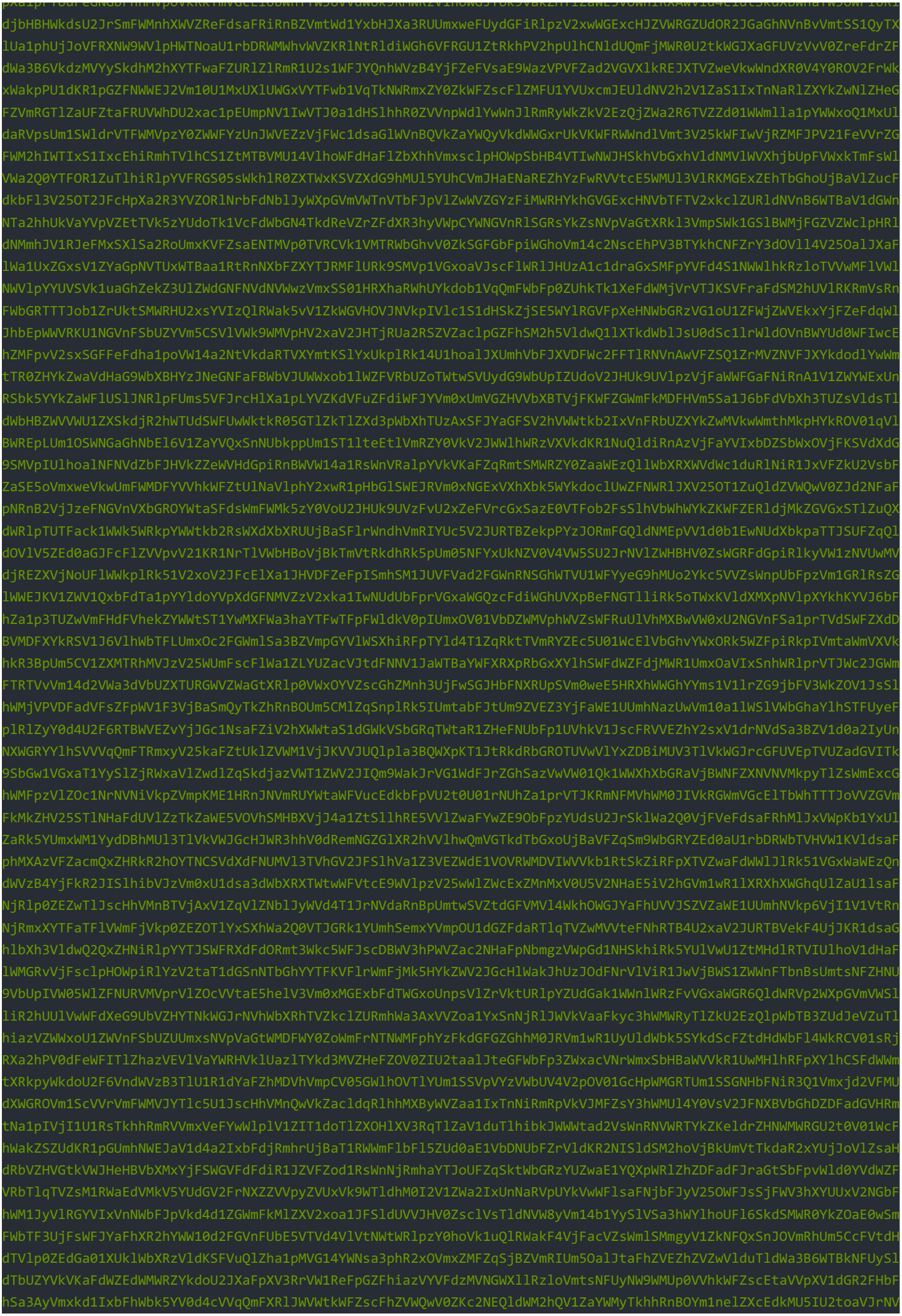
提取出的文件中有个经过多次base64编码后的文档，flag.doc，




```
VmOwd2QyUXlVWGxWV0d4V1YwZDRWMVl3WkRSV01WbDNXa1JTVjAxV2JETlhhMUpUVmpBeF
YySkVUbGhoTVVwVVZtcEJlRll5U2tWVWJHaG9UV1Z3V1ZadGNFSmxSbGw1VTJ0V1ZXSkhh
RzlVVmxaM1ZsWmFjVkZOUmxSTmJFcEpWbTEwYTFkSFNrZGpSVGxhVmpOU1IxcFZXbUZrUj
A1R1UyMTRVMkpIZHpGV1ZFb3dWakZhV0ZOcmFHaFNlbXhXVm1wT1QwMHhjRlpYYlVaclVq
QTFSMWRyV25kV01ERkZVbFJHVjFaRmIzZFdha1poVjBaT2NtRkhhRk5sYlhoWFZtMXdUMV
F3TUhoalJscFlZbFZhY1ZadGRHRk5SbFowW1VaT1ZXS1ZXVEpWYkZKSFZqRmFSbUl6WkZk
aGExcG9WakJhVDJOdFJraGhSazVzWWxob1dGWnRNWGRVTVZGM1RVaG9hbEpzY0ZsWmJGWm
hZMnhXY1ZGVVJsTk5XRUpIVmpKNFQxWlhTa2RqUmxwWFlsaFNNMVpxU2t0V1ZrcFpXa1pr
YUdFeGNGbFhhMVpoVkRKTmVGcE1UbWhTTW5oVVdWUk9RMWRzV1hoWGJYUk9VakZHTlZaWE
5VOWhiRXAwVld4c1dtSkdXbWhaTW5oWFl6RldjbHBHWkdsU2JrSmFWMnhXWVZReFdsaFRi
RnBZVmtWd1YxbHJXa3RUUmxweFUydGFiRlpzV2xwWGExcHJZVWRGZUdOR2JGaGhNVnBvVm
tSS1QyTXlUa1phUjJoVFRXNW9WVlpHWTNoaU1rbDRWMWhvWVZKRlNtRldiWGh6VFRGU1Zt
RkhPV2hpU1hCN1dUQmFjMWROU2tkWGJXaGFUVzVvVOZreFdrZFdWa3B6VkdzMVYySkdhM2
hXYTFwaFZURlZlRmR1U2s1WFJYQnhWVzB4YjFZeFVsaE9WazVPVFZad2VGVX1kREJXTVZw
eVkwWndXROV4YOROV2FrWkxWakpPU1dKR1pGZFNWWEJ2Vm10U1MxUX1UWGxVYTFwb1VqTk
NWRmxZYOZkWFZscF1ZMFU1YVUxcmJEUldNV2h2V1ZaS1IxTnNaRlZXYkZwN1ZHeGFZVmRG
T1ZaUFZtaFRUVWhDU2xac1pEUmpNV1IwVTJOa1dHS1hhROZVVnpWdlYwWnJlRmRyWkZkV2
```

不知道编码了几次，那就直接写个exp，循环100次解码，解到不能解的地方会自动报错停下来，

```
import base64
flag='Vm0wd2QyUXlVWGxWV0d4V1YwZDRWMVl3WkRSV01WbDNXa1JTVjAxV2JETlhhMUpUVmpBeFYySkVUbGhoTVVwVVZtcEJlRll5U2tWVWJHaG
9UV1Z3V1ZadGNFSmxSbGw1VTJ0V1ZXSkhhRzlVVmxaM1ZsWmFjVkZ0UmxSTmJFcEpWbTEwYTFkSFNrZGpSVGxhVmpOU1IxcFZXbUZrUjA1R1UyMT
RVMkpIZHpGV1ZFb3dWakZhV0ZOcmFHaFNlbXhXVm1wT1QwMHhjRlpYYlVaclVqQTFSMWRyV25kV01ERkZVbFJHVjFaRmIzZFdha1poVjBaT2NtRkk
hhRk5sYlhoWFZtMXdUMVF3TUhoalJscFlZbFZhY1ZadGRHRk5SbFowW1VaT1ZXS1ZXVEpWYkZKSFZqRmFSbUl6WkZkaGExcG9WakJhVDJOdFJraG
hSazVzWWxob1dGWnRNWGRVTVZGM1RVaG9hbEpzY0ZsWmJGWmhZMnhXY1ZGVVJsTk5XRUpIVmpKNFQxWlhTa2RqUmxwWFlsaFNNMVpxU2t0V1ZrcF
```



```
lVbFZ3VTFadE1IZGxSVFZJVWxob1YxZEhhRmxXTUdSdlZqRnNjbHBIT1dwaVJsWXpWMnRhVDFkR1NuTlRiR2hYVFdwV2NsWkhlRXRrUjFKRlZHeG
9hRTFXY0hsV2FrSmhVMjFSZVZScldtaFNia0pQVlcwMVEwMXNXbkZUYm5Cc1VtczFTRlp0TlZkWFIwcElWV3M1V21KVVJuWlpha1poWTFaR2RGSn
NaRTVoZWxZMlYxUkNWMkl4VlhsVGEyaFdZa2RvVmxadGVHRk5NVnBZWlVkR2FrMVlRa3BYYTFwVFZHeGFWVkpVUWxkV1JWcDJXWHBHVm1WV1NsbG
lSbHBwVmtkNFdGZFhlRzlpTVZKSFYyNUtXR0pWV25GVVYzUmhVakZhU0dWR1RsVmlSbkF4VlZkd1UxWXhXalpSYWxKV1lXdGFhRmt5YzNoV01XUn
lUbFprVTJFelFscFdiVEIzWlVkSmVWWnVUbGhpYXpWWldXeG9VMVpXVm5GUmJVWlVWbTE0VjFZeU1VZFdWMHBHWTBSR1ZsWjZRVEZXYWtwTFZsWk
tWVkZzY0d4aE0wSlJWMWh3UjJReFRsZFVibEpyVW1zMVQxUlZWbmRXYkZsNFdrUkNXbFl4UmpOVWJGWnJWMGRLU0dGRk9WZGhNVnBNVmtSR1YyUk
hWa2xVYXpsVFlrZDNNVlpIZUZaT1YwWklVMnRhYWxKdGVHRldiRnAzWkd4YWNWTnJaR3BoZWxaWVZsZDRhMVV4V25WUmFscFhZbGhvYUZWcVJtdF
hSa3B5V2taV2FWSXhTblpXUmxKRFUyc3hjMWR1VW10U00xSlFWVzB4TkZkR1duTmhTRTVYVWpCV05Ga3dXbk5XTURGSVlVVlNWMDFHY0doWmVrWn
JaRlp3UjFSck5WZGhNV3QzVm0xd1MwMUdVWGhYYmxKVVlURndWVmxyV25kV2JGcHpWMnRrVGsxV1draFZiRkp6VlZaV1ZVMUVhejA9'
for i in range(100):
 print("第{0}次解码：".format(i+1))
 flag=base64.b64decode(flag).decode()
 print(flag)
```

解码了20次，得到一个字串

```
comEON_YOuAreSOSoS0great
```

还有一个是encode.txt

```
YXNkZmdoamtsMTIzNDU2Nzg5MA==
```

同样base64解码一下，

```
import base64
print(base64.b64decode('YXNkZmdoamtsMTIzNDU2Nzg5MA==').decode())
```

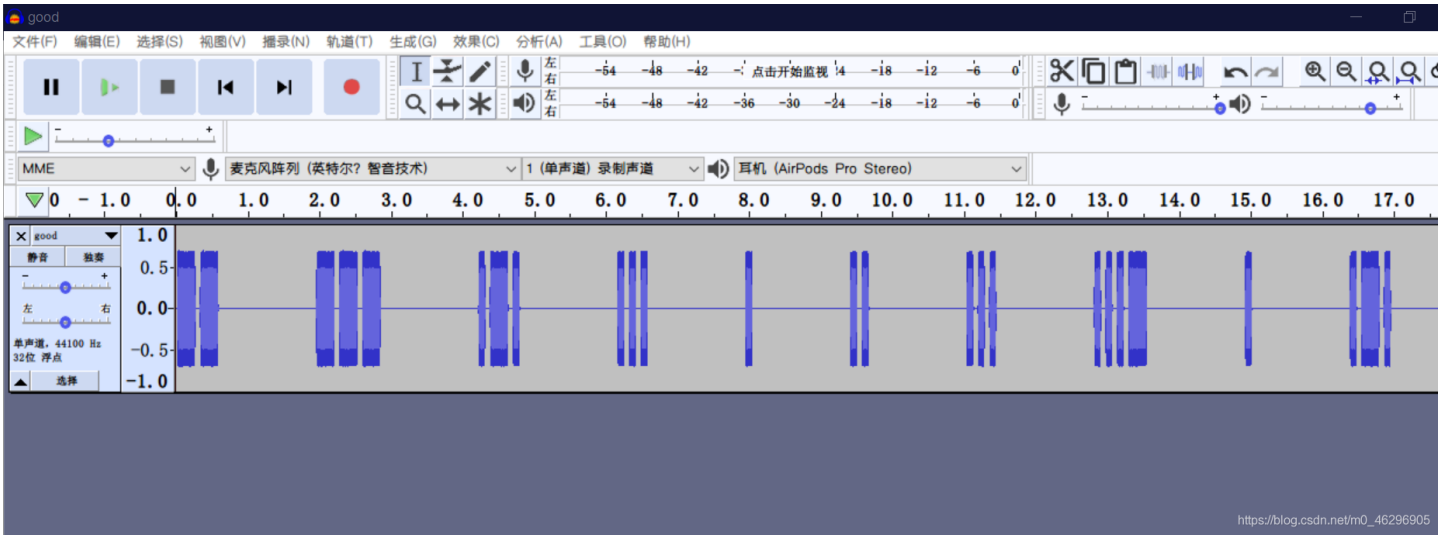
解码出来得到字串

```
asdfghjkl1234567890
```

这两个字串应该是压缩包的密码，一个个试过发现`asdfghjkl1234567890`是`看看flag在不在里面^_^.rar`的密码，`comEON_YOuAreSOSoS0great`则是`18394.rar`的密码

得到一个flag.jpg

但这个图片貌似是个干扰，先放到一边看另一个解压出来的文件，是个mp3格式的，播放后发现是个摩斯密码，Audacity打开



码文如下

```
-- --- .-. ... . .. ... ....- . .-. -.-- ...- . .-. -.-- . .- ... -.--
```

解码后大写转小写得到flag

```
flag{morseisveryveryeasy}
```

0x0C [BJDCTF2020]一叶障目

无法浏览的png文件，应该是CRC校验有误，网上找到的CRC修正python源码，

```
#coding=utf-8
import zlib
import struct
#读文件
file = '1.png'  #注意，1.png图片要和脚本在同一个文件夹下哦~
fr = open(file,'rb').read()
data = bytearray(fr[12:29])
crc32key = eval(str(fr[29:33]).replace('\\x','').replace("b'",'0x').replace("'",''))
#crc32key = 0xCBD6DF8A #补上0x，copy hex value
#data = bytearray(b'\x49\x48\x44\x52\x00\x00\x01\xF4\x00\x00\x01\xF1\x08\x06\x00\x00\x00')  #hex下copy grep hex
n = 4095 #理论上0xffffffff,但考虑到屏幕实际，0x0fff就差不多了
for w in range(n):#高和宽一起爆破
    width = bytearray(struct.pack('>i', w))#q为8字节，i为4字节，h为2字节
    for h in range(n):
        height = bytearray(struct.pack('>i', h))
        for x in range(4):
            data[x+4] = width[x]
            data[x+8] = height[x]
            #print(data)
        crc32result = zlib.crc32(data)
        if crc32result == crc32key:
            print(width,height)
            #写文件
            newpic = bytearray(fr)
            for x in range(4):
                newpic[x+16] = width[x]
                newpic[x+20] = height[x]
            fw = open(file+'.png','wb')#保存副本
            fw.write(newpic)
            fw.close
```

得到flag

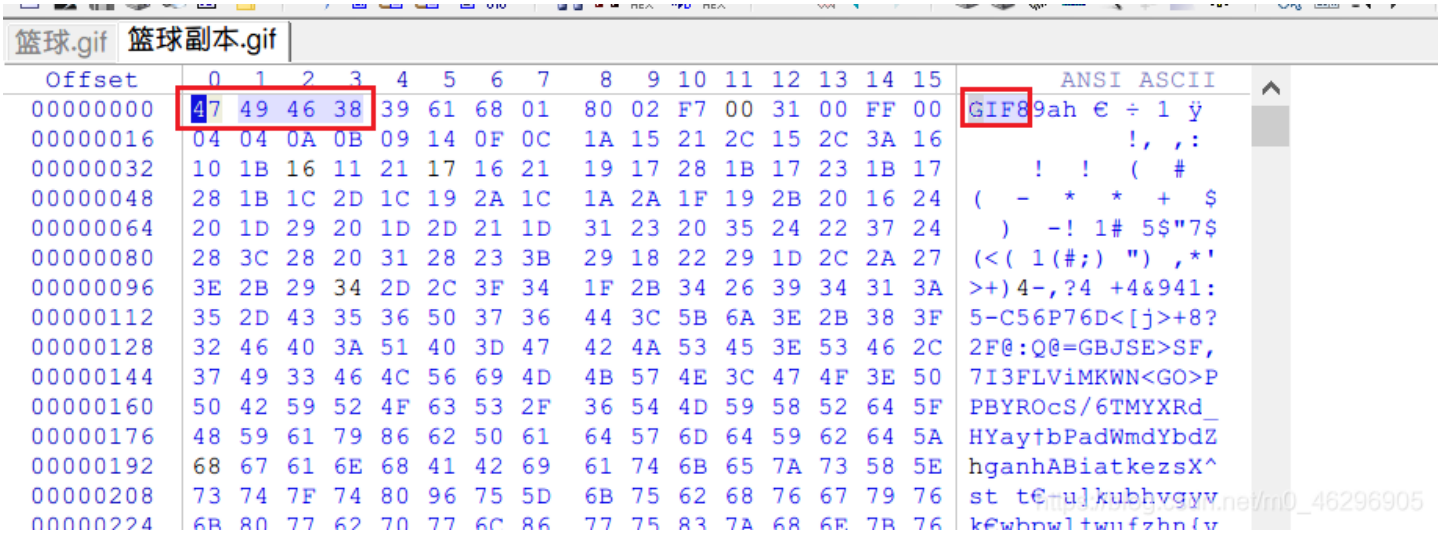
```
flag{66666}
```

0x0D [BJDCTF2020]鸡你太美

得到两个gif文件，一个损坏的，一个完好的，

本能地想逐帧查看，但这题好像不是考察这个的，winhex打开看看

第二个少了个gif文件头，所以才显示损坏，直接复制那个完好的gif的文件头`47 49 46 38`，光标移至开头，ctrl + v 粘贴，默认是插入



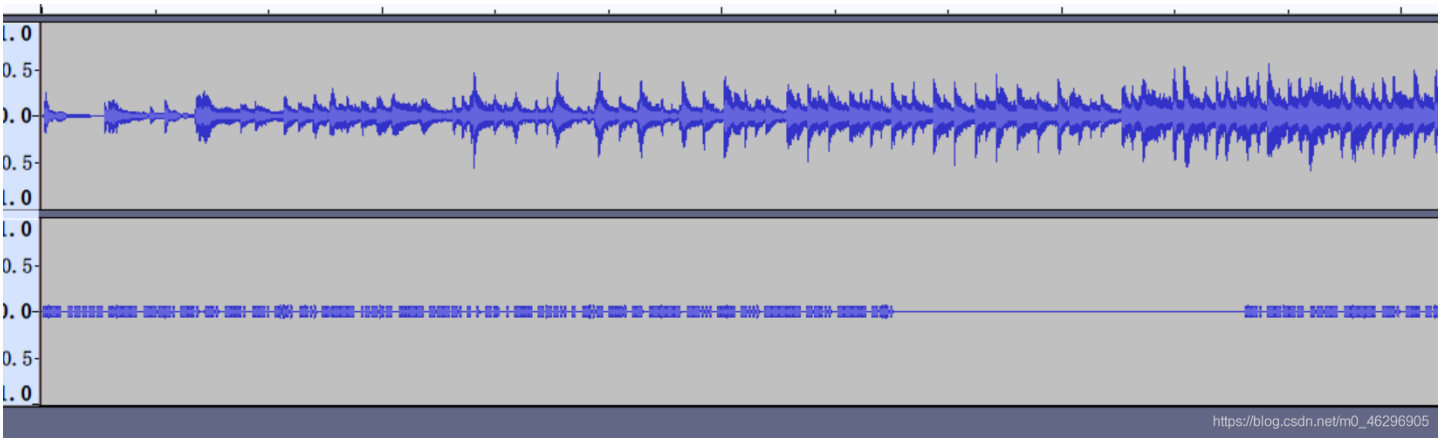
得到flag


```
flag{zhi_yin_you_are_beautiful}
```

0x0E 穿越时空的思念

> 题目：
> 嫦娥当年奔月后，非常后悔，因为月宫太冷清，她想：早知道让后羿自己上来了，带了只兔子真是不理智。于是她就写了一首曲子，诉说的是怀念后羿在的日子。无数年后，小明听到了这首曲子，毅然决定冒充后羿。然而小明从曲子中听不出啥来，咋办。。（该题目为小写的32位字符，提交即可）

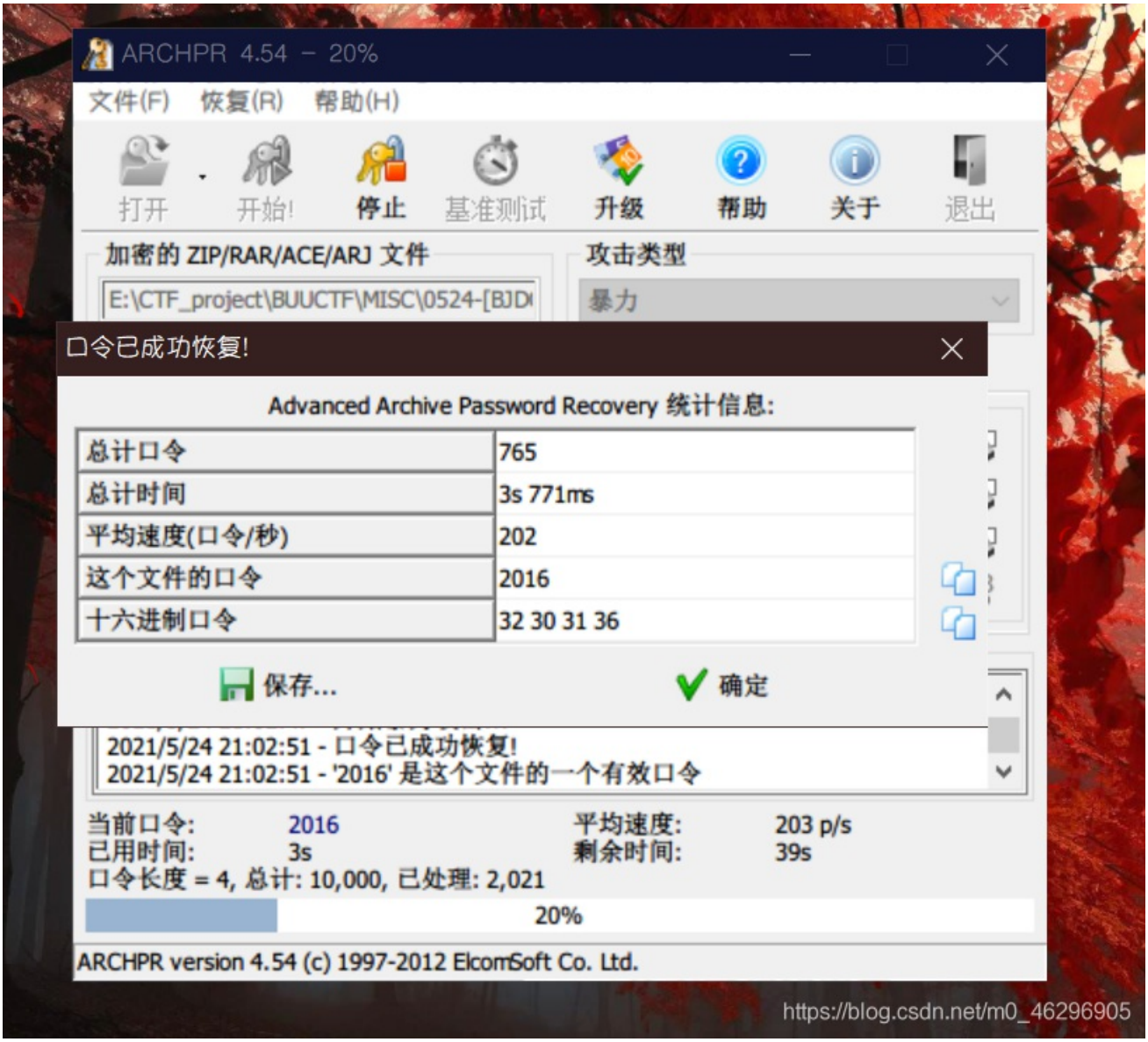
里面很明显嵌入了摩斯密码，`Audacity`打开，解摩斯密码




```
flag{f029bd6f551139eedeb8e45a175b0786}
```

0x0F [BJDCTF2020]just_a_rar

是一个名为`4位数.rar`的压缩文件，`APRCHPR`破解一下



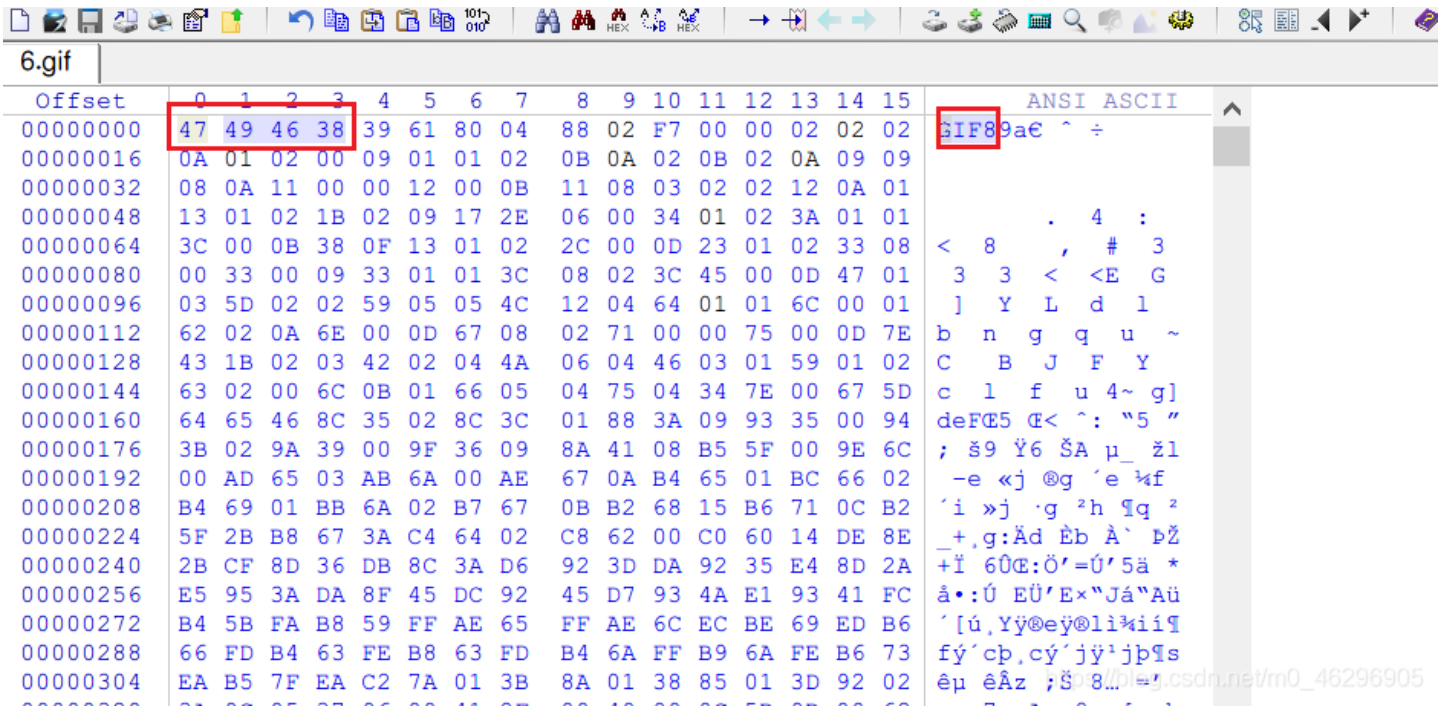
解压出来

右键查看属性得到flag


```
flag{Wadf_123}
```

0x10 [BJDCTF2020]纳尼

浏览不了的gif文件，winhex打开看看，发现是少了个文件头，加一下



码文散布在不同的帧，用 `PS` 逐帧提取一下

```
Q1RGe3dhbmdfYmFvX3FpYW5nX2lzX3NhZH0=
```

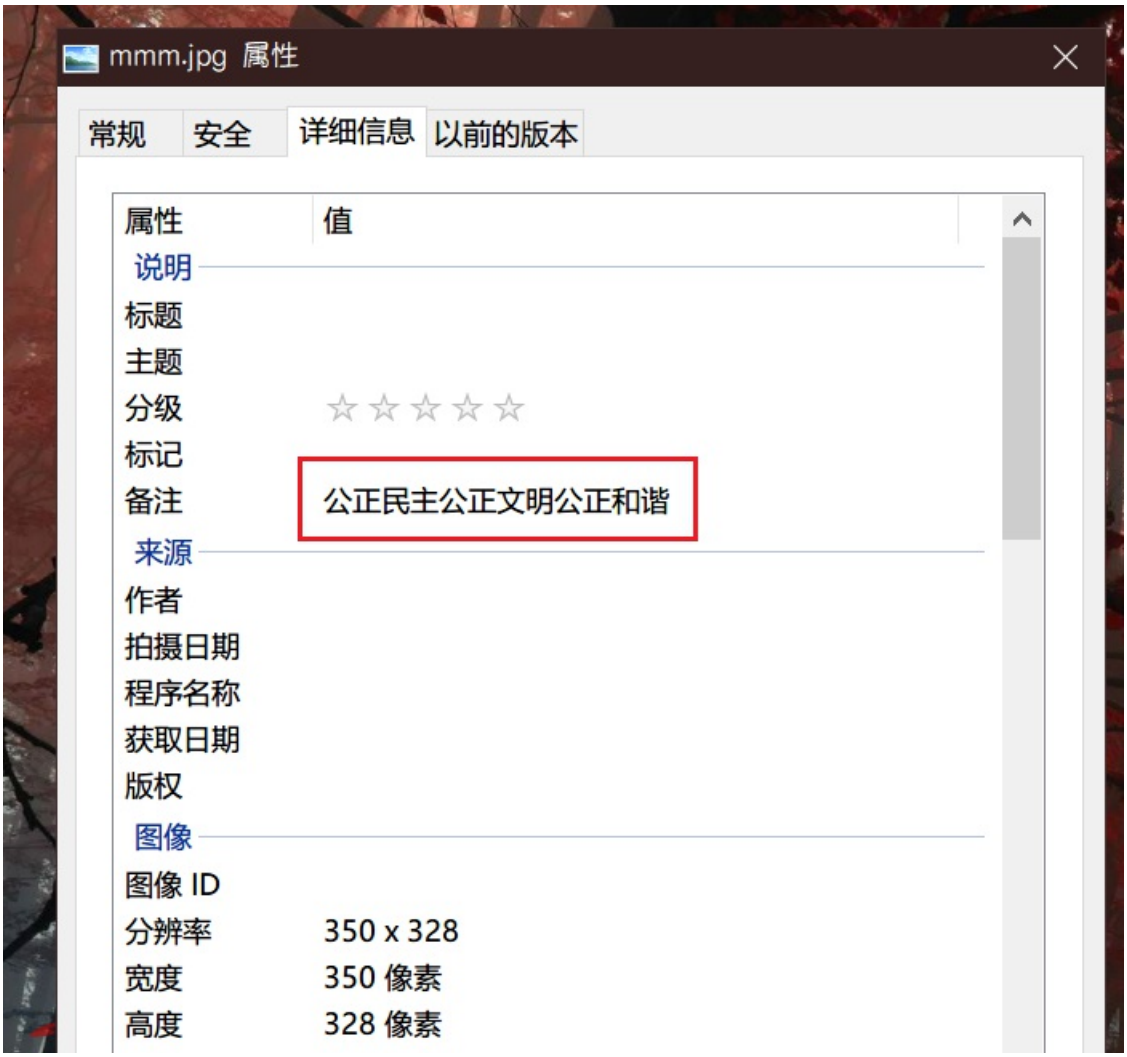
base64解码

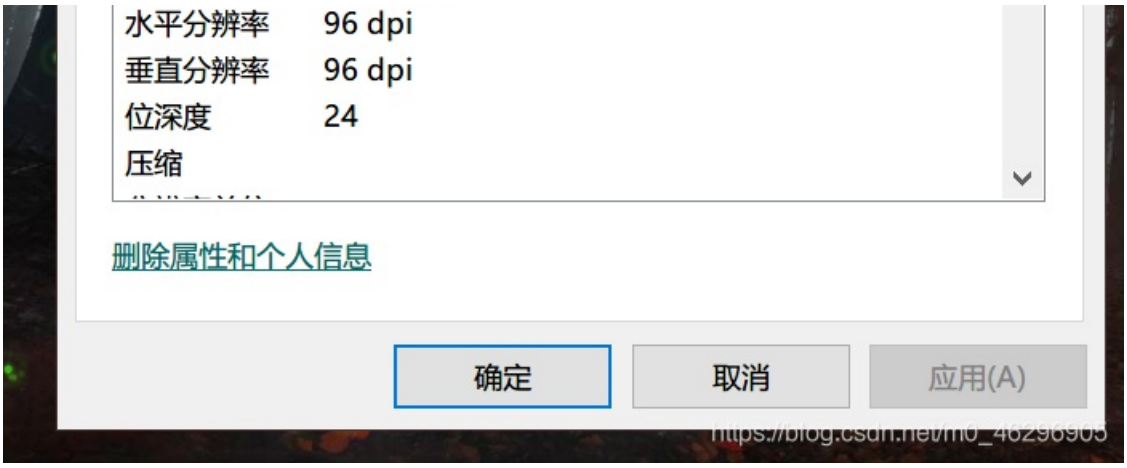
```
import base64
print(base64.b64decode('Q1RGe3dhbmdfYmFvX3FpYW5nX2lzX3NhZH0=').decode())
```


```
flag{wang_bao_qiang_is_sad}
```

0x11 [ACTF新生赛2020]outguess

主要是`mmm.jpg`右键看属性找到奇怪的备注，是`核心价值观编码`





在线解码得到 `outguess隐写` 的 `key`

核心价值观编码

社会主义核心价值观：富强、民主、文明、和谐；自由、平等、公正、法治；爱国、敬业、诚信、友善

abc

编 码　　解 码

公正民主公正文明公正和谐

outguess隐写

1.outguess工具安装

```
git clone https://github.com/crorvick/outguess
./configure && make && make install   #无权限时加sudo
```

2.outguess工具基本使用

（1）写入：

```
outguess -k "my secret key" -d hidden.txt demo.jpg out.jpg
#加密之后，demo.jpg会覆盖out.jpg，
#hidden.txt中的内容是要隐藏的东西
```

（2）提取：

```
1.当有key时：
   outguess -k "my secret key" -r out.jpg hidden.txt
   #解密之后，解密内容放在hidden.txt中
2.当无key时：
   outguess -r out.jpg hidden.txt
```

（3）outguess --help

```
outguess [options] [<input file> [<output file>]]
     -[sS] <n>    iteration start, capital letter for 2nd dataset
     -[iI] <n>    iteration limit
     -[kK] <key>  key
     -[dD] <name> filename of dataset
     -[eE]        use error correcting encoding
     -p <param>   parameter passed to destination data handler
     -r           retrieve message from data
     -x <n>       number of key derivations to be tried
     -m           mark pixels that have been modified
     -t           collect statistic information
     -F[+-]       turns statistical steganalysis foiling on/off.
```

这题求出`key`是`abc`，就直接输入命令

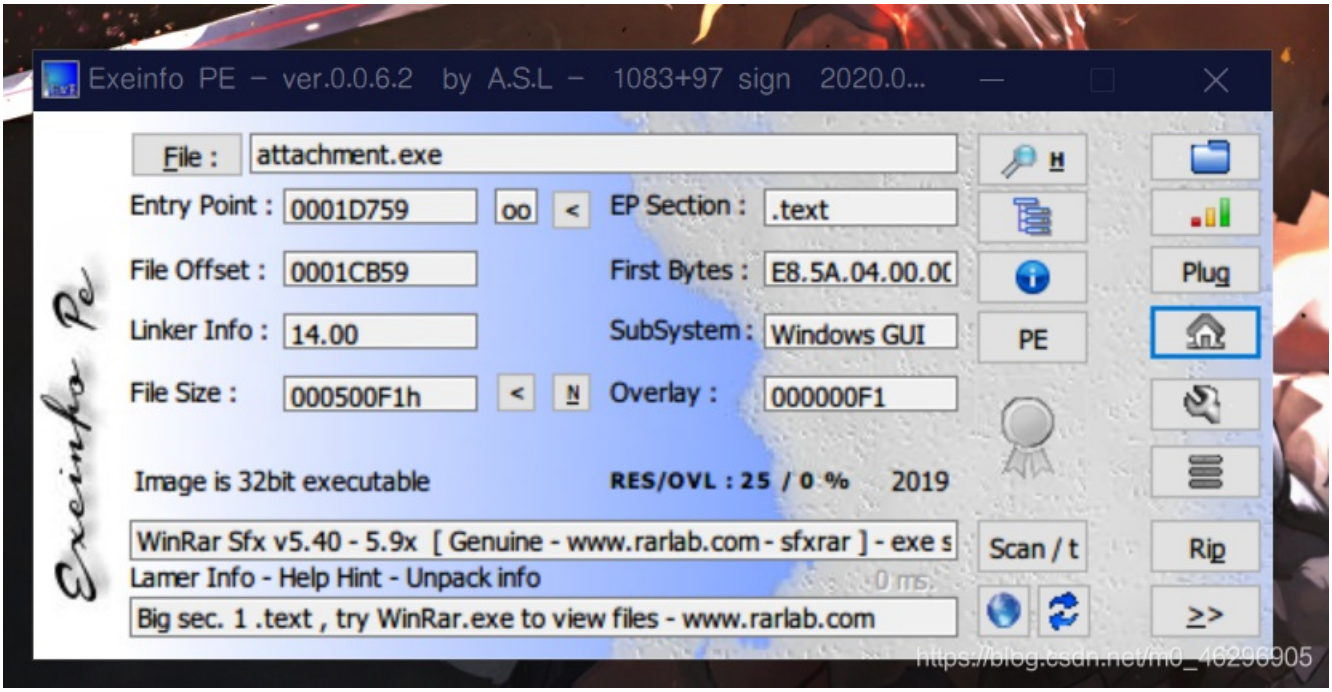
```
outguess -k "abc" -r mmm.jpg flag.txt
```

得到flag

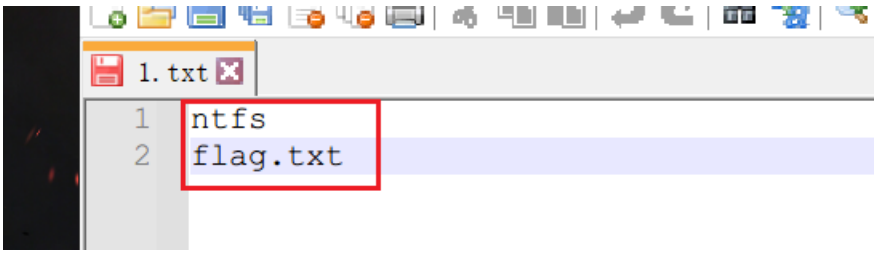
```
flag{gue33_Gu3Ss!2020}
```

0x12 [SWPU2019]我有一只马里奥

确认是一个exe文件



运行一下得到一个文本文件，告诉我们这题在1.txt里用`NTFS流隐写`了一个flag.txt



可以用工具NtfsStreamsEditor提取

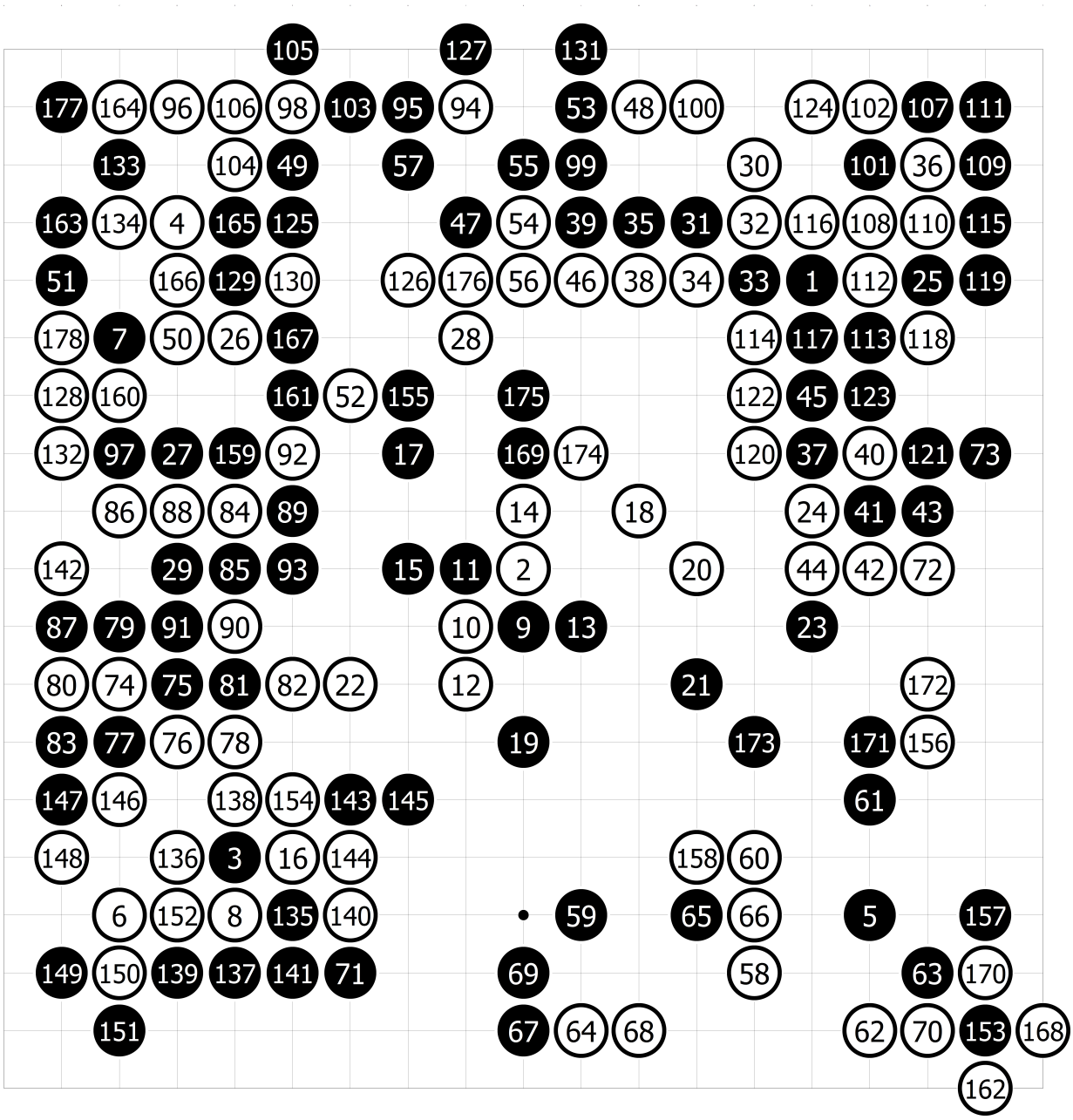
也可以在1.txt所在目录下打开cmd输入：

```
notepad 1.txt:flag.txt
```


```
flag{ddg_is_cute}
```

0x13 谁赢了比赛？

题目：小光非常喜欢下围棋。一天，他找到了一张棋谱，但是看不出到底是谁赢了。你能帮他看看到底是谁赢了么？

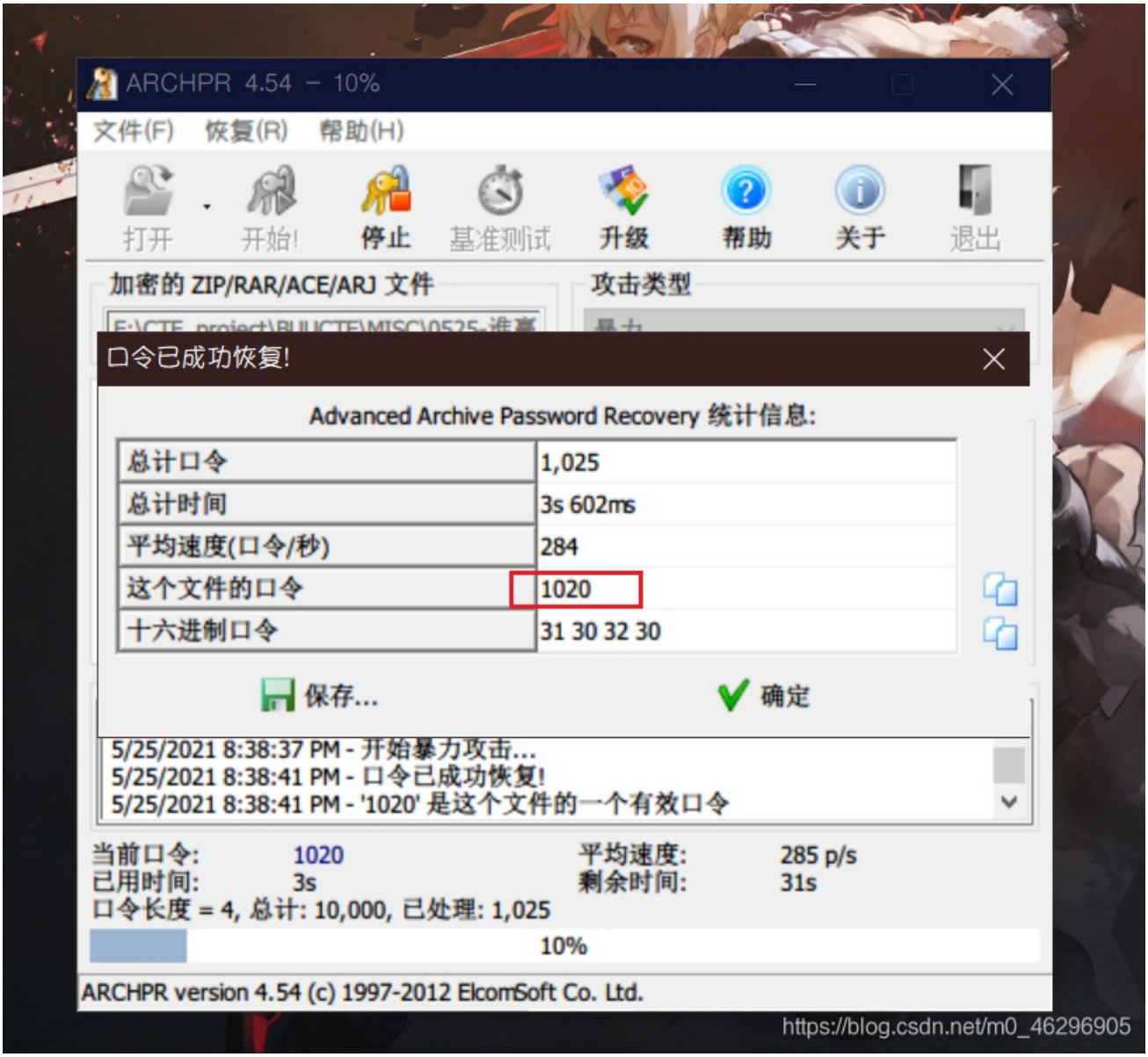


foremost提取一下

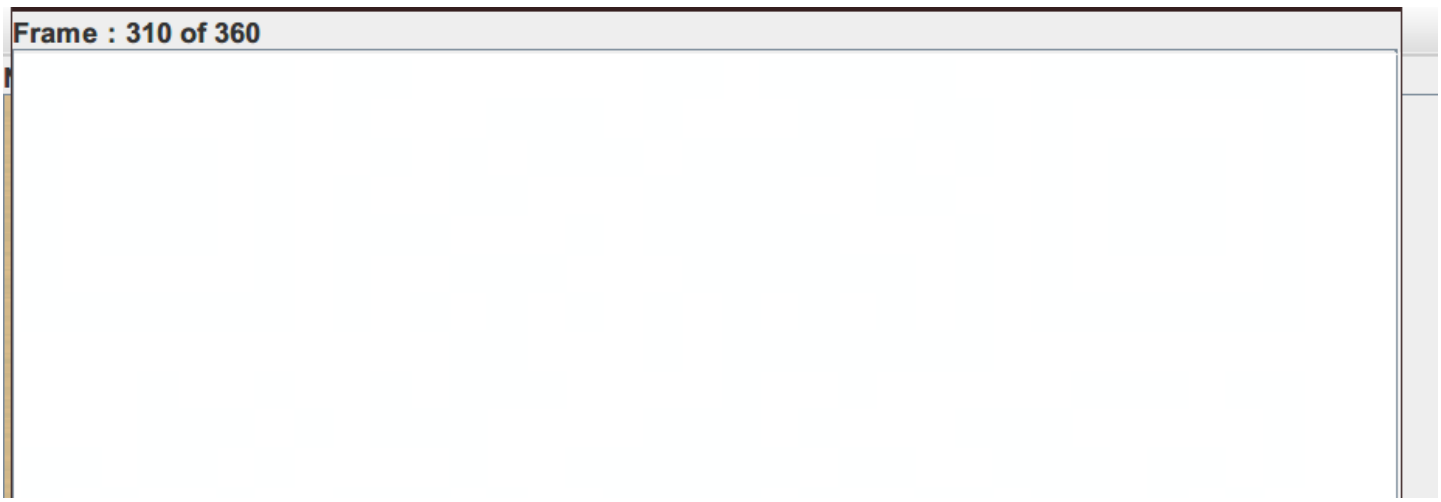
```
01617696  3D 52 75 6B 39 41 D1 A4  2B 9E 09 6E 11 17 4D 8E  =Ruk9AÑ¤+ž n  MŽ
01617712  11 9D 03 90 8B E6 70 3F  8E 20 B4 43 18 02 FC 78      ‹æp?Ž ´C  üx
01617728  DF F4 C3 DB 84 BB BB E1  AB 0C 0F 61 50 E9 E3 D5  ßôÃÛ„»»á«  aPéãÕ
01617744  7E EF 79 61 A8 0A 08 13  C6 A5 A1 F0 41 59 CC 8C  ~ïya¨    Æ¥¡ðAYÌŒ
01617760  4A CE 97 CF 8C A3 32 F2  36 C7 03 56 D4 BA 5E A0  JÎ—ÏŒ£2ò6Ç VÔº^
01617776  2F 36 5B 8B 04 39 FC 0F  13 E5 1F 08 13 BC 56 C0  /6[‹ 9ü  å    ¼VÀ
01617792  8D D5 3E 71 2B B3 4C 2B  9A 85 C8 FA 49 36 B8 47   Õ>q+³L+š…ÈúI6¸G
01617808  34 A2 BB E1 27 42 19 76  5B 8B 09 73 87 4E AB 35  4¢»á'B v[‹ s‡N«5
01617824  32 74 55 B4 D5 AC 0A 25  9E 5B 78 96 6C 88 68 03  2tU´Õ¬ %ž[x-l^h
01617840  56 BA 07 E1 91 DB 1A 74  20 90 2D 00 1F 00 00 00  V° á'Û t  -
01617856  1F 00 00 00 02 37 01 89  BD 1D 71 13 47 1D 30 08      7 ‰½ q G 0
01617872  00 20 00 00 00 66 6C 61  67 2E 74 78 74 00 B0 F1    flag.txt °ñ
```

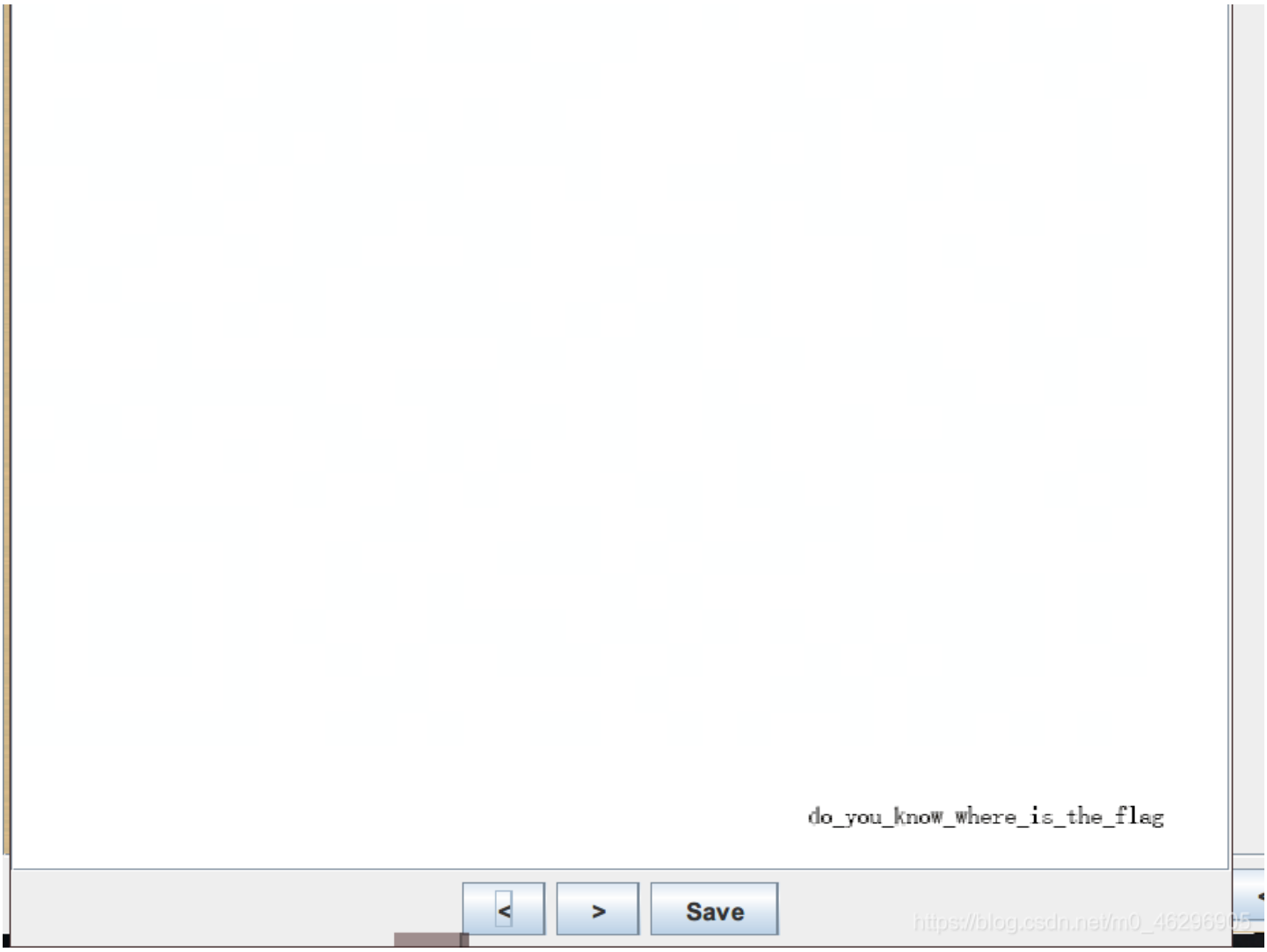
```
01617872  00 20 00 00 00 66 6C 61  67 2E 74 78 74 00 B0 F1    flag.txt °ñ
01617888  AC 1A 77 68 65 72 65 20  64 6F 20 79 6F 75 20 74  ¬ where do you t
01617904  68 69 6E 6B 20 74 68 65  20 66 6C 61 67 20 69 73  hink the flag is
01617920  3F C4 3D 7B 00 40 07 00                          ?Ä={ @
```


得到一个rar压缩包，里面是flag.txt和一个gif，用`ARCHPR`破解压缩密码如下：

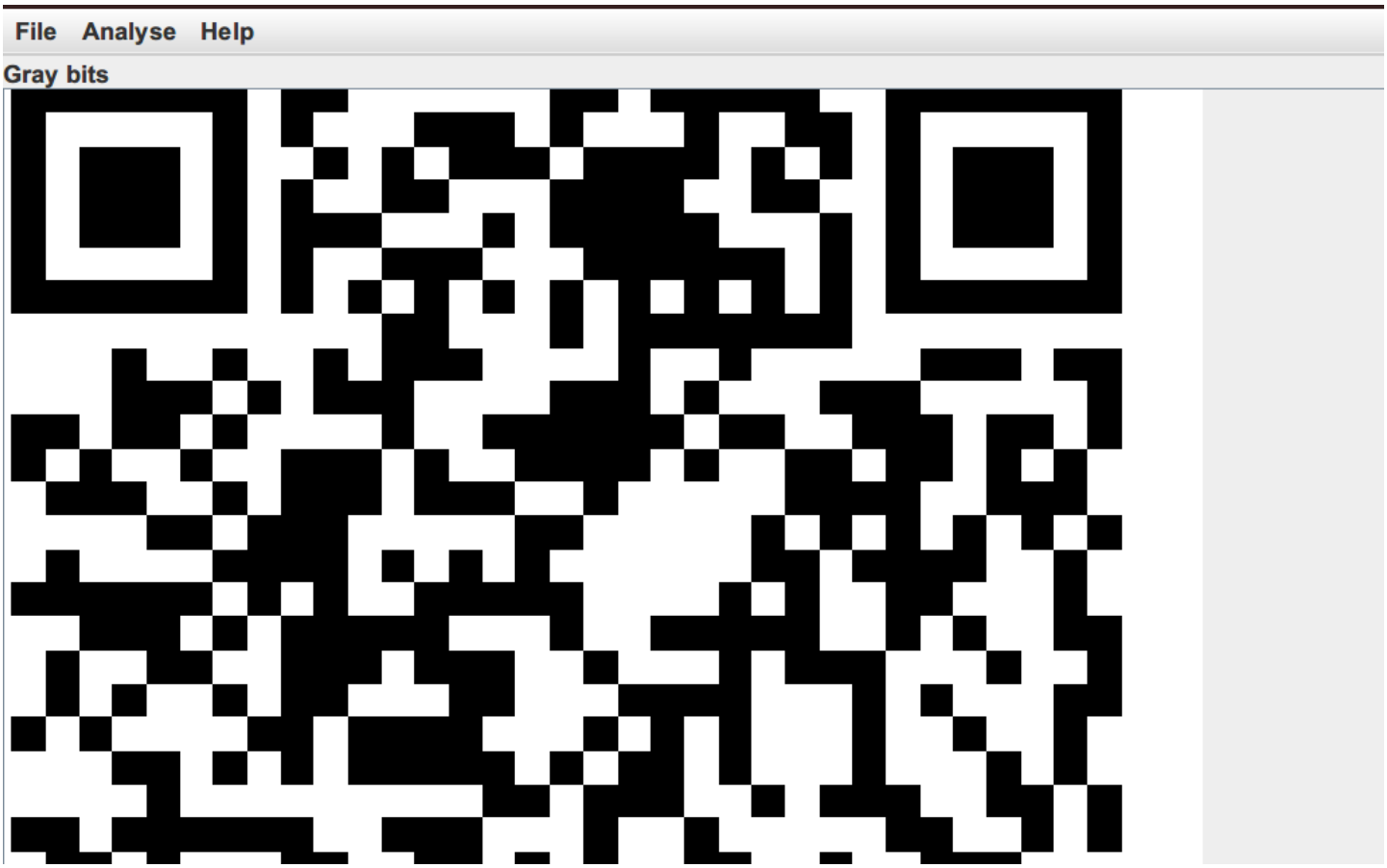


flag不在txt文件中，那就看gif文件，用`stegsolve`的`frame format`逐帧看，在第310帧的时候发现了可疑的地方，提取出来





各个通道查看一下，找到了二维码




do you know where is the flag
<
>

扫一下得到flag


QR Research
文件(F) 工具(T) 帮助(H)
纠错等级
H(30%)
掩码
Auto
版本
Auto
Auto
尺寸
4
已解码数据 1:
位置:(6.8,57.0)-(831.9,57.0)-(6.8,879.6)-(832.2,878.1)
颜色正常,正像
版本:4
纠错等级:H,掩码:7
内容:
flag{shanxiajingwu_won_the_game}

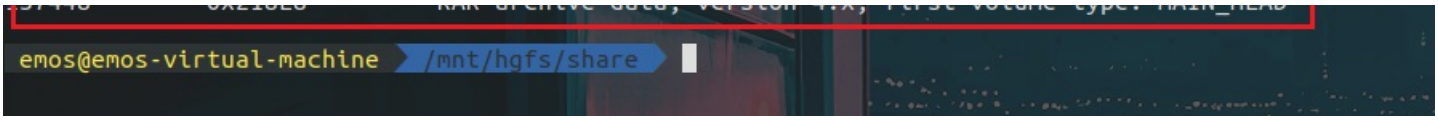
```
flag{shanxiajingwu_won_the_game}
```

0x14 [GXYCTF2019]gakki

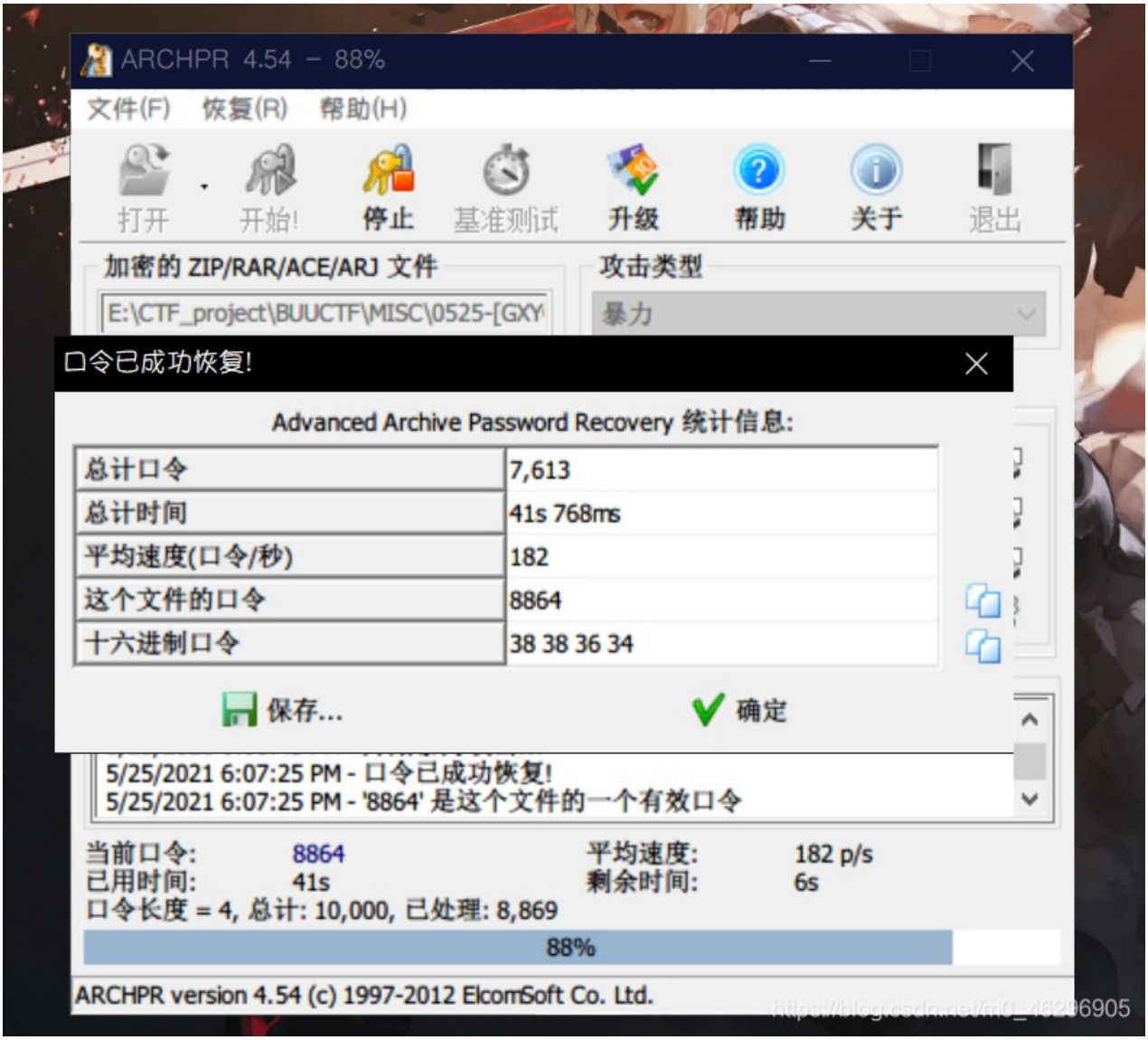
题目：

binwalk分析一下，发现隐写了rar压缩包，

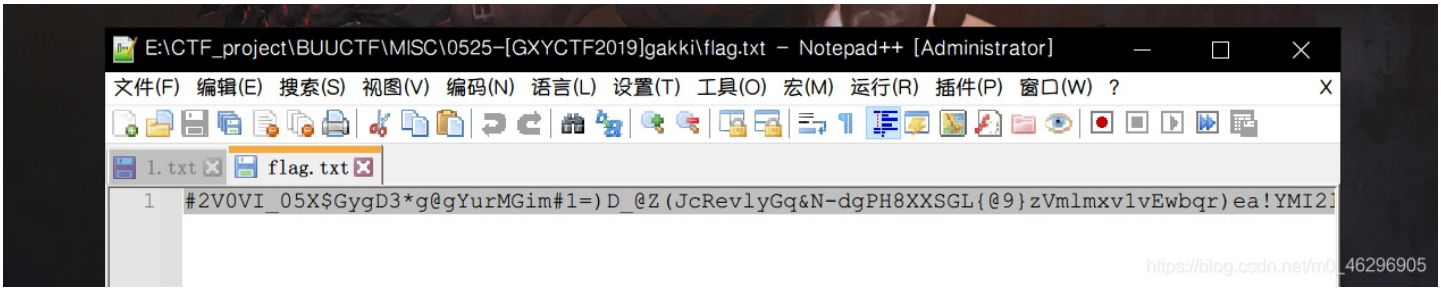
```
emos@emos-virtual-machine /mnt/hgfs/share binwalk wolaopo.jpg

DECIMAL       HEXADECIMAL     DESCRIPTION
--------------------------------------------------------------------------------
0             0x0             JPEG image data, JFIF standard 1.01
30            0x1E            TIFF image data, big-endian, offset of first image directory: 8
37448         0x218E8         RAR archive data, version 4.x, first volume type: MAIN_HEAD
```



提取出的rar是有压缩密码的，直接ARCHPR破解一下，



解压得到一串奇怪的字符



参考别的博主的wp知道是要统计字母频率，然后按频率顺序输出，

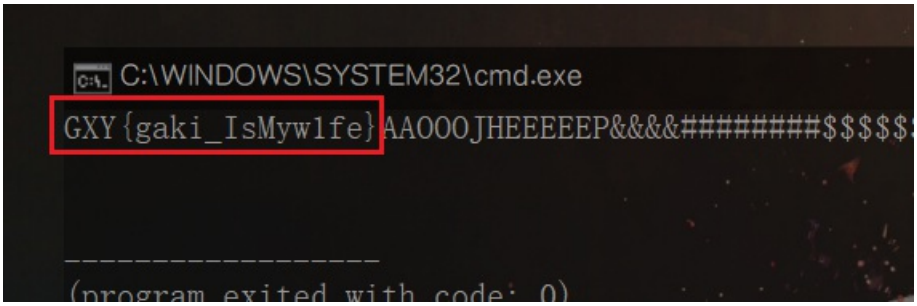
```
f=open("flag.txt",'r').read()#读文件
l=[]
for i in range(256):
 l.append(0)#初始化频率表，下标作为ASCII码，值是频数
for i in f:
 l[ord(i)]+=1 #读一个对应下标就加一
b=l[:]#对列表结果复制到另一个列表
b.sort()#按频率排序
b.reverse()#倒置一下，不倒置不能输出正序的flag
flag=''
for i in b:
 flag+=chr(l.index(i))#索引出对应的字符拼成flag
print(flag)
```

参考一下别的博主的wp，两个都用的是字典：

```
alphabet = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890!@#$%^&*()_+- ={}[]"
f = open("flag.txt", "r")
data = f.read()
result = {d:0 for d in alphabet}

def sort_by_value(d):
    items = d.items()
    backitems = [[v[1],v[0]] for v in items]
    backitems.sort(reverse=True)
    return [ backitems[i][1] for i in range(0,len(backitems))]

for d in data:
    for alpha in alphabet:
        if d == alpha:
            result[alpha] = result[alpha] + 1

print(sort_by_value(result))
```

```
alphabet = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890!@#$%^&*()_+- =\\{\\}[]"
strings = open('./flag.txt').read()

result = {}
for i in alphabet:
 counts = strings.count(i)
 i = '{0}'.format(i)
 result[i] = counts

res = sorted(result.items(),key=lambda item:item[1],reverse=True)
for data in res:
 print(data)

for i in res:
 flag = str(i[0])
 print(flag[0],end="")
```

最终flag如下：




```
flag{gaki_IsMyw1fe}
```

0x15 [HBNIS2018]excel破解

有密码保护的excel，winhex打开，search一下flag

```
00271200  6A 00 A8 00 1C 02 20 00  D4 06 B7 04 05 00 9C 00  j ¨     Ô ·   œ
00271216  00 00 A8 00 22 02 B7 04  20 00 D2 06 24 00 D6 06    ¨ " ·   Ò $ Ö
00271232  01 00 28 00 58 04 00 00  00 00 A8 00 2E 02 64 00    ( X     ¨ . d
00271248  00 00 A8 00 34 02 20 00  D8 06 20 00 D2 06 24 00    ¨ 4   Ø   Ò $
00271264  D6 06 01 00 28 00 58 04  00 00 A8 00 3A 02 6B 00  Ö   ( X   ¨ : k
00271280  00 00 A8 00 40 02 B7 04  27 00 D0 06 00 00 00 00    ¨ @ · ' Đ
00271296  00 00 A8 00 44 02 7A 00  00 00 A3 00 5C 02 F8 D7    ¨ D z   £ \ ø×
00271312  00 00 A8 00 48 02 20 00  BE 02 21 00 C0 02 20 00    ¨ H   ¾ ! À
00271328  BE 02 21 00 C2 02 B6 00  17 00 43 68 61 6E 67 65  ¾ ! Â ¶   Change
00271344  53 68 65 65 74 56 69 73  69 62 69 6C 69 74 79 28  SheetVisibility(
00271360  29 00 41 00 BC 02 03 00  00 00 69 00 FF FF B8 D7  ) A ¼     i ÿÿ ¸×
00271376  00 00 E0 00 00 00 25 00  66 6C 61 67 20 69 73 20    à   % flag is
00271392  68 65 72 65 20 43 54 46  7B 6F 66 66 69 63 65 5F  here CTF{office_
00271408  65 61 73 79 5F 63 72 61  63 6B 65 64 7D 00 00 00  easy_cracked}
00271424  00 00 FF FF FF FF 80 D7  00 00 FF FF FF FF 00 00    ÿÿÿÿ€×  ÿÿÿÿ
00271440  01 62 B8 00 41 74 74 72  69 62 75 74 00 65 20 56   b¸ Attribut e V
00271456  42 5F 4E 61 6D 00 65 20  3D 20 22 50 75 62 00 6C  B_Nam e = "Pub l
00271472  69 63 46 75 6E 63 74 00  69 6F 6E 73 22 0D 0A 0D  icFunct ions"
00271488  08 0A 4F 70 01 2C 20 45  78 70 09 00 68 69 74 01    Op , Exp  hit
00271504  48 44 69 6D 20 00 63 7A  72 46 69 78 20 41 00 73  HDim  czrFix A s
00271520  20 49 6E 74 65 67 65 82  72 01 30 50 72 69 76 61   Intege,r 0Priva
00271536  00 A4 02 43 00 78 74 20  45 52 52 4F 00 52 5F 53    ¤ C xt ERRO R_S
00271552  55 43 43 45 53 42 53 01  52 4C 6F 6E 67 00 CC 30  UCCESBS RLong Ì0
00271568  16 26 02 56 02 6B 20 03  2A 48 4B 45 00 59 5F 43   & V k  *HKE Y_C
00271584  55 52 52 45 4E 40 54 5F  55 53 45 52 00 26 26 88  URREN@T_USER &&ˆ
00271600  48 38 30 02 00 31 0D 0A  0B 58 41 01 2C 41 4C 4C  H80  1    XA ,ALL
00271616  5F 41 03 59 3D 00 20 26  48 46 30 30 33 46 21 11  _A Y=  &HF003F!
```

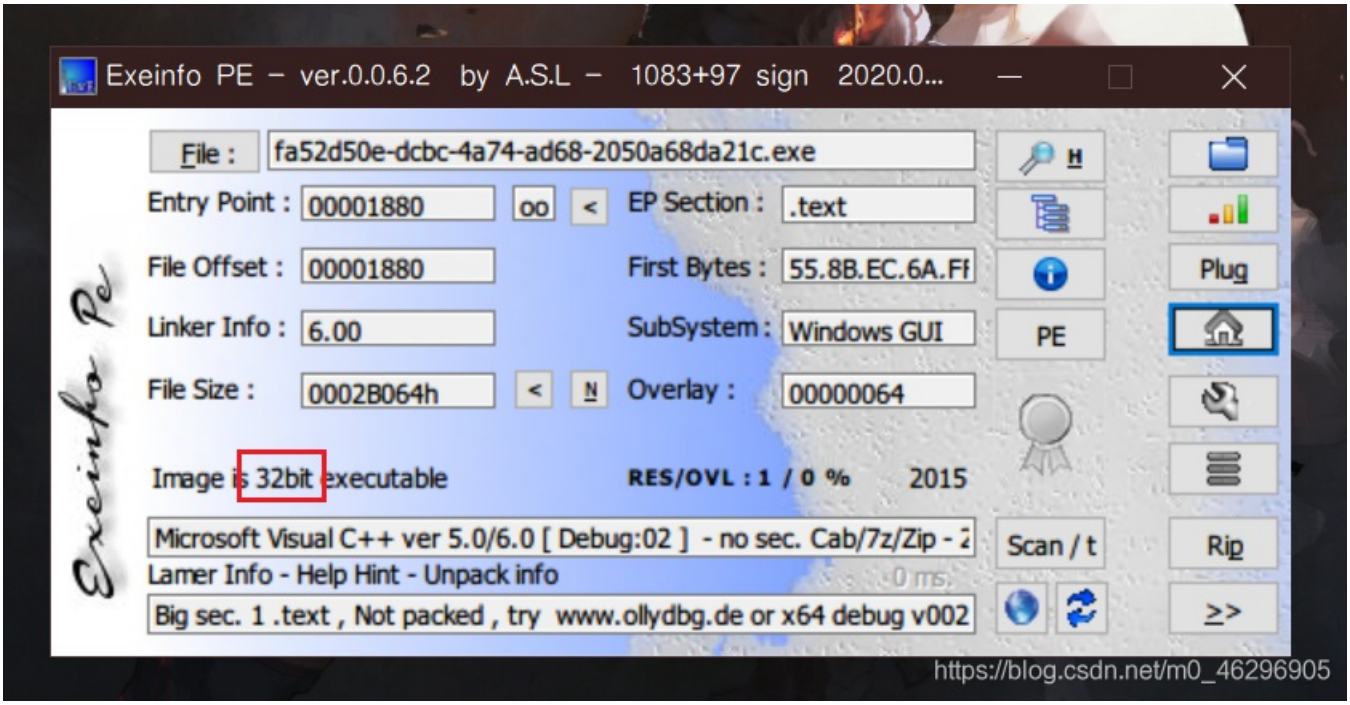


```
flag{office_easy_cracked}
```

0x16 Mysterious

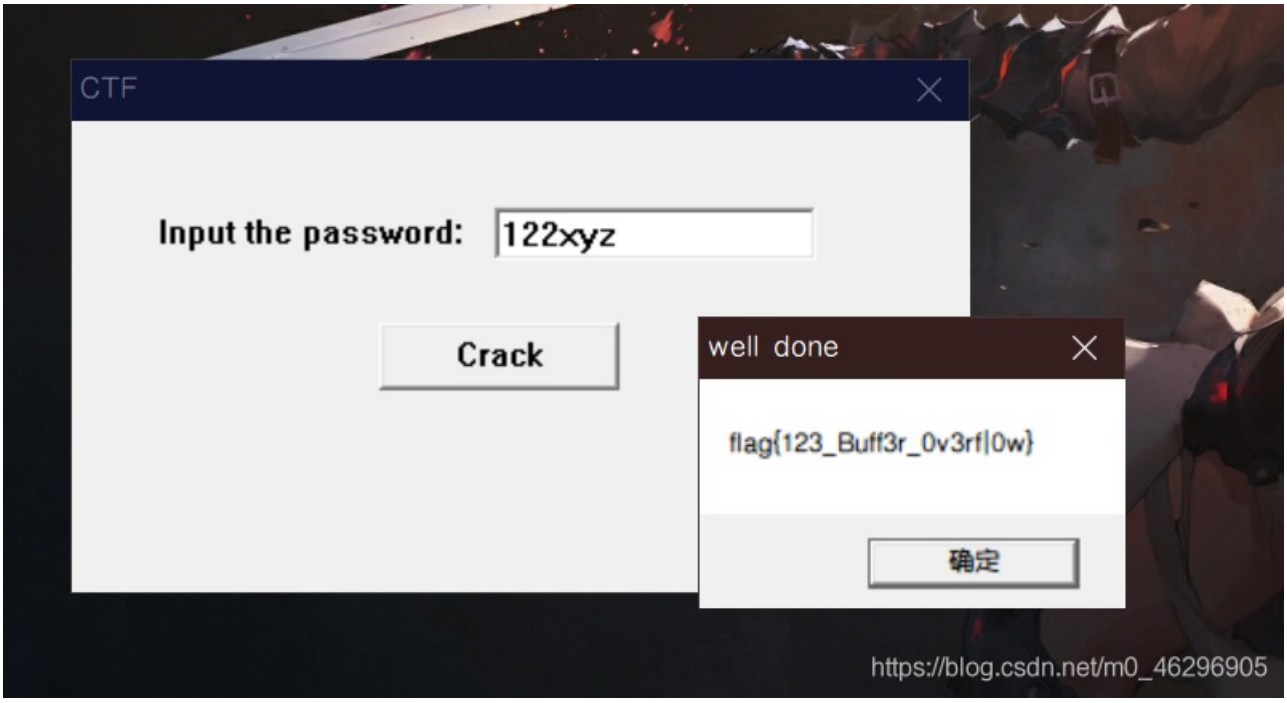
> 题目：自从报名了CTF竞赛后，小明就辗转于各大论坛，但是对于逆向题目仍是一知半解。有一天，一个论坛老鸟给小明发了一个神秘的盒子，里面有开启逆向思维的秘密。小明如获至宝，三天三夜，终于解答出来了，聪明的你能搞定这个神秘盒子么？

放到exeinfo里看看，发现时32位可执行文件



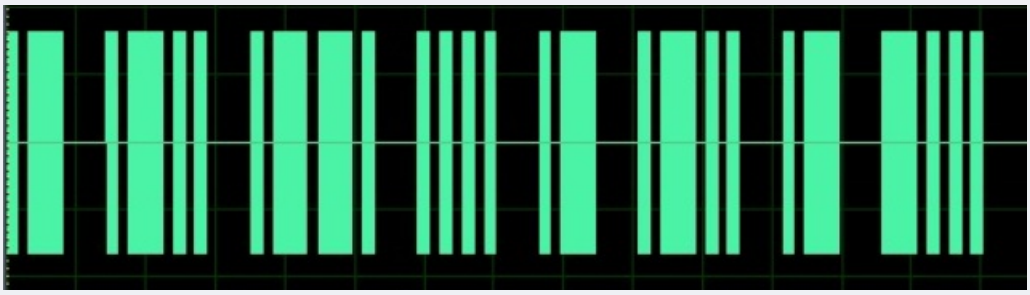
从读取用户输入的API函数`GetDlgItemTextA`为突破口找到关键函数，分析一下发现输入`122xyz`即可得到flag

```
int __stdcall sub_401090(HWND hWnd, int a2, int a3, int a4)
{
  int v4; // eax
  char Source[260]; // [esp+50h] [ebp-310h] BYREF
  CHAR Text[5]; // [esp+154h] [ebp-20Ch] BYREF
  char v8[252]; // [esp+159h] [ebp-207h] BYREF
  __int16 v9; // [esp+255h] [ebp-10Bh]
  char v10; // [esp+257h] [ebp-109h]
  int Value; // [esp+258h] [ebp-108h]
  CHAR String[260]; // [esp+25Ch] [ebp-104h] BYREF

  memset(String, 0, sizeof(String));
  Value = 0;
  if ( a2 == 16 )
  {
    DestroyWindow(hWnd);
    PostQuitMessage(0);
  }
  else if ( a2 == 273 )
  {
    if ( a3 == 1000 )
    {
      GetDlgItemTextA(hWnd, 1002, String, 260);
      strlen(String);
      if ( strlen(String) > 6 )//长度受限
        ExitProcess(0);
      v4 = atoi(String);//字符串转整型("122"-->122)
      Value = v4 + 1;
      if ( v4 == 122 && String[3] == 'x' && String[5] == 'z' && String[4] == 'y' )//输入密码是"122xyz"
      {
        strcpy(Text, "flag");
        memset(v8, 0, sizeof(v8));
        v9 = 0;
        v10 = 0;
        _itoa(Value, Source, 10);
        strcat(Text, "{");
        strcat(Text, Source);
        strcat(Text, "_");
        strcat(Text, "Buff3r_0v3rf|0w");
        strcat(Text, "}");
        MessageBoxA(0, Text, "well done", 0);
      }
      SetTimer(hWnd, 1u, 0x3E8u, TimerFunc);
    }
    if ( a3 == 1001 )
      KillTimer(hWnd, 1u);
  }
  return 0;
}
```




```
flag{123_Buff3r_0v3rf|0w}
```

0x17 [HBNIS2018]来题中等的吧

> 题目：
>
> 
>
> 又是摩斯密码

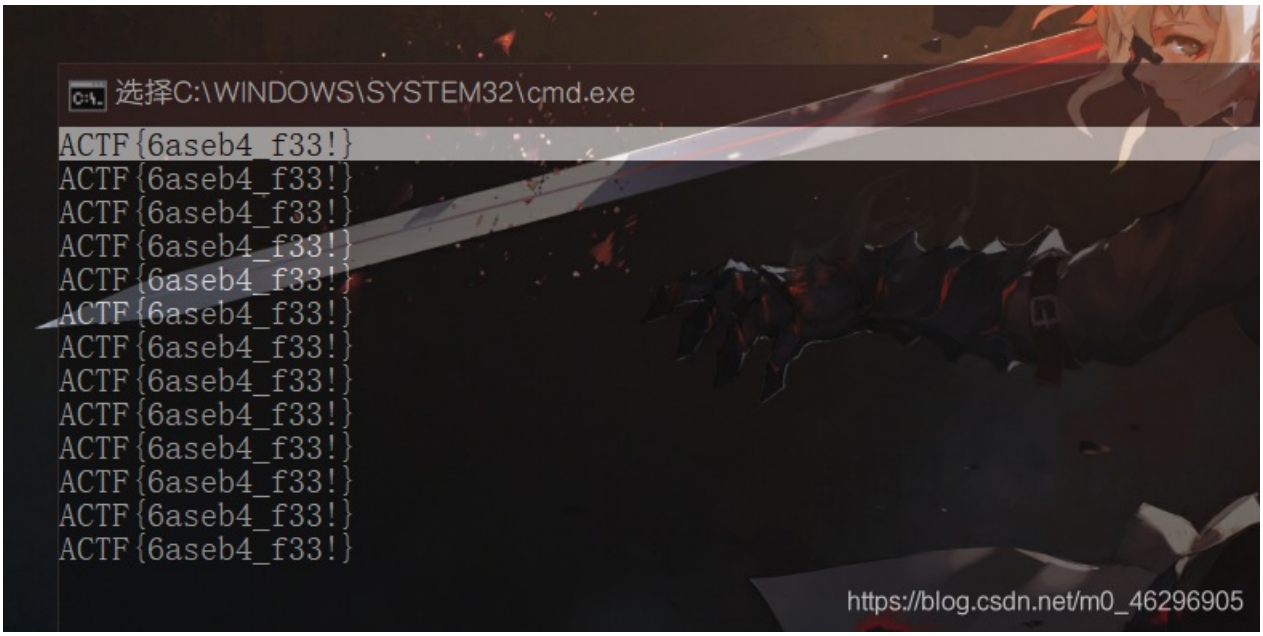
```
.- .-… .-. … .- .-… .- -…
```

```
flag{alphalab}
```

0x18 [ACTF新生赛2020]base64隐写

根据题目知道是base64隐写
换python2的源跑一下下面的脚本

```
# -*- coding: cp936 -*-
b64chars = 'ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/'
with open('ComeOn!.txt', 'rb') as f:
    bin_str = ''
    for line in f.readlines():
        stegb64 = ''.join(line.split())
        rowb64 =  ''.join(stegb64.decode('base64').encode('base64').split())
        offset = abs(b64chars.index(stegb64.replace('=','')[-1])-b64chars.index(rowb64.replace('=','')[-1]))
        equalnum = stegb64.count('=') #no equalnum no offset
        if equalnum:
            bin_str += bin(offset)[2:].zfill(equalnum * 2)
        print ''.join([chr(int(bin_str[i:i + 8], 2)) for i in xrange(0, len(bin_str), 8)])
```

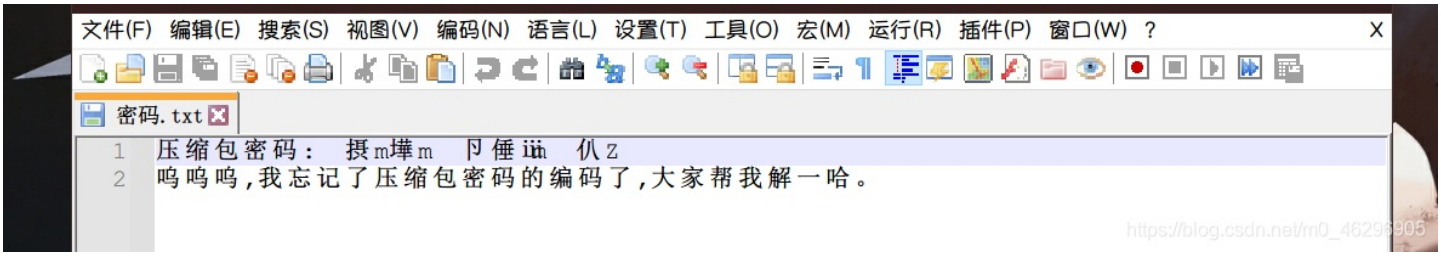



```
flag{6aseb4_f33!}
```

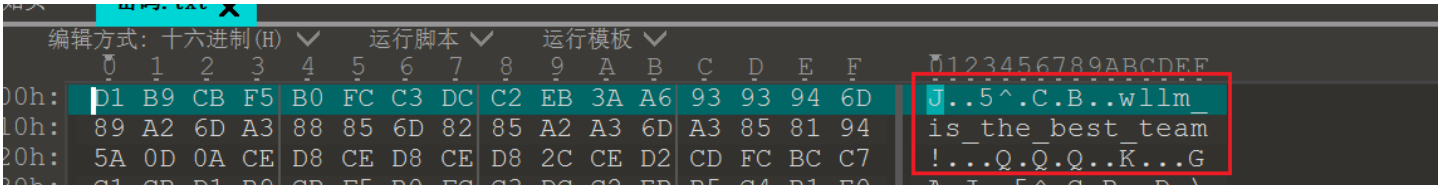
0x19 [SWPU2019]伟大的侦探

先用`ziperello`试着破解一下压缩密码，发现失败。

`密码.txt`是可以解压出来的，里面本该是密码的部分变成了乱码



用010editor打开，试着换个编码方式，发现密码`wllm_is_the_best_team!`

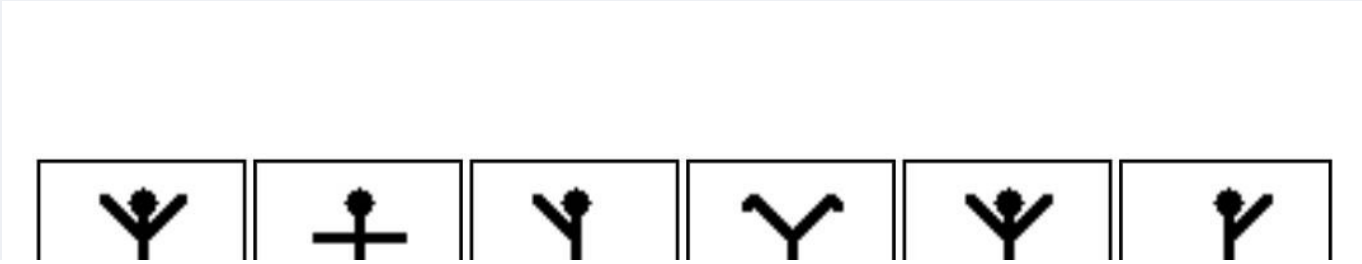


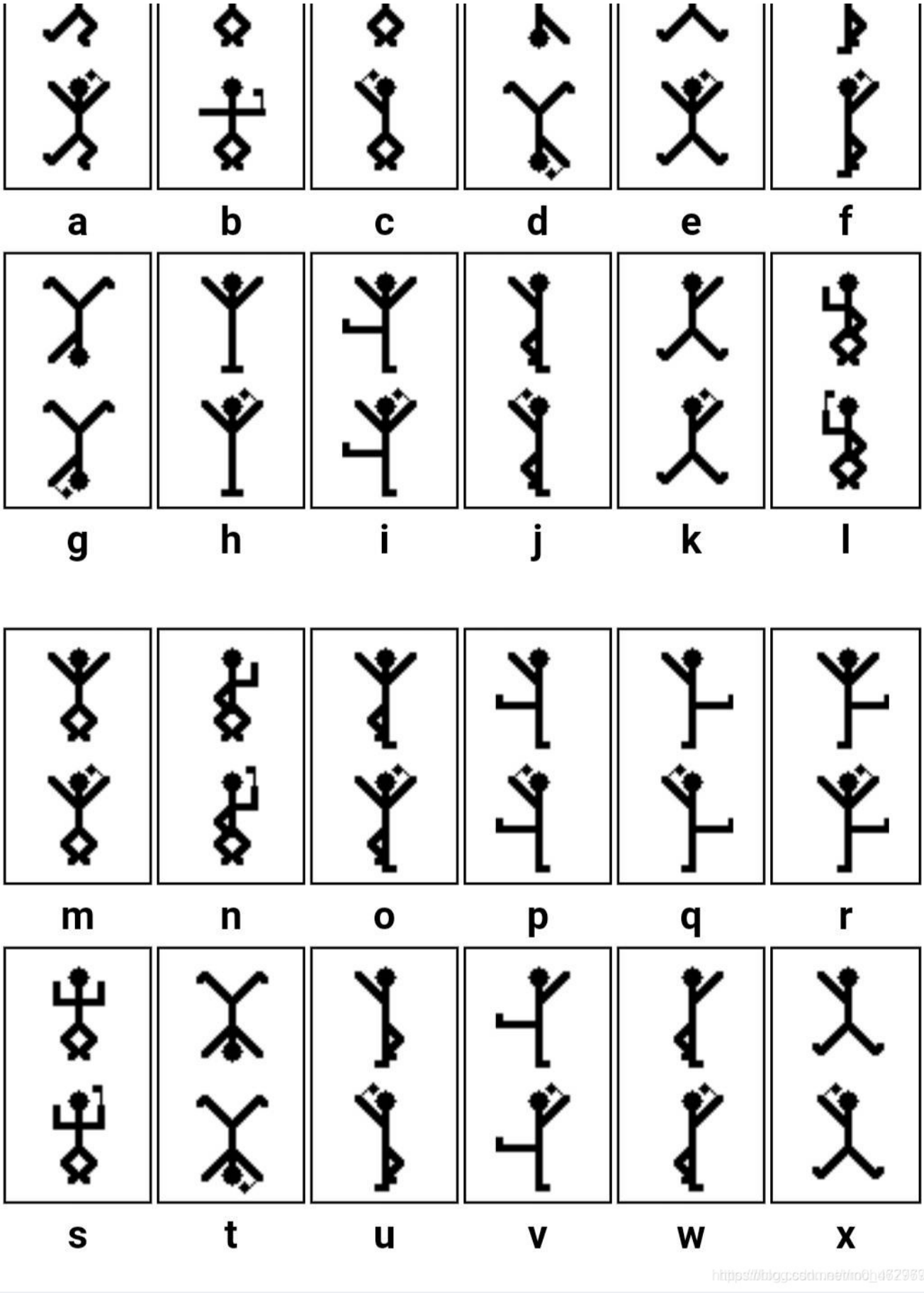
```
30h:  C1 CB D1 B9 CB F5 B0 FC C3 DC C2 EB B5 C4 B1 E0   A.J..5^.C.B..D.\
40h:  C2 EB C1 CB 2C B4 F3 BC D2 B0 EF CE D2 BD E2 D2   B.A...3.K^..K.SK
50h:  BB B9 FE A1 A3                                    ]..~t
```


得到的图片是福尔摩斯小人密码

给出码表

——福尔摩斯小人编码码表



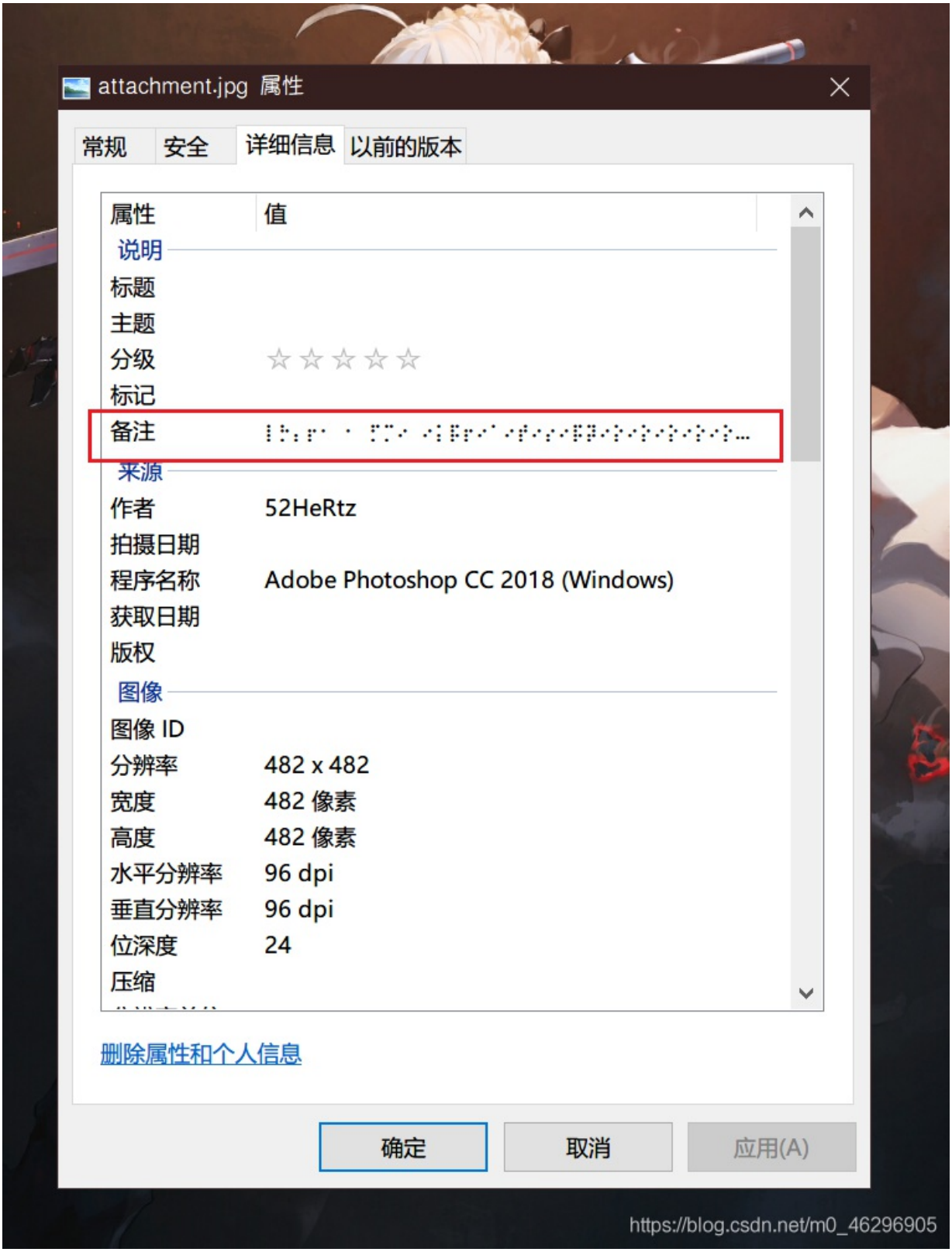


对照得到flag

```
flag{iloveholmesandwllm}
```

0x1A [WUSTCTF2020]find_me

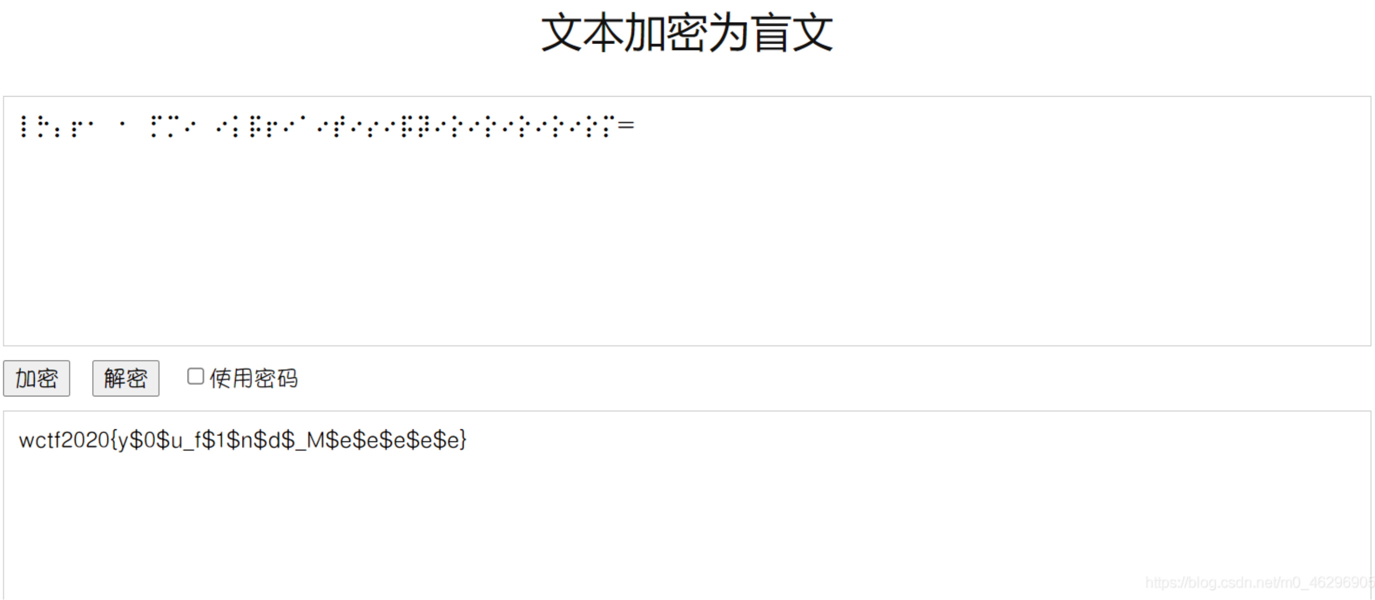
属性栏发现备注



提取出来如下

```
[illegible]=
```

是盲文，在线解密

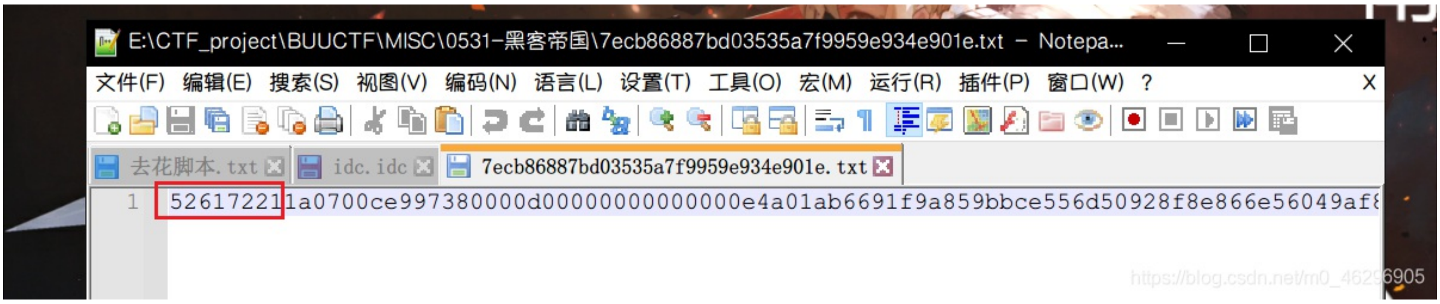



```
flag{y$0$u_f$1$n$d$_M$e$e$e$e$e}
```

0x1B 黑客帝国

> 题目：
> Jack很喜欢看黑客帝国电影，一天他正在上网时突然发现屏幕不受控制，出现了很多数据再滚屏，结束后留下了一份神秘的数据文件，难道这是另一个世界给Jack留下的信息？聪明的你能帮Jack破解这份数据的意义吗？

rar文件头

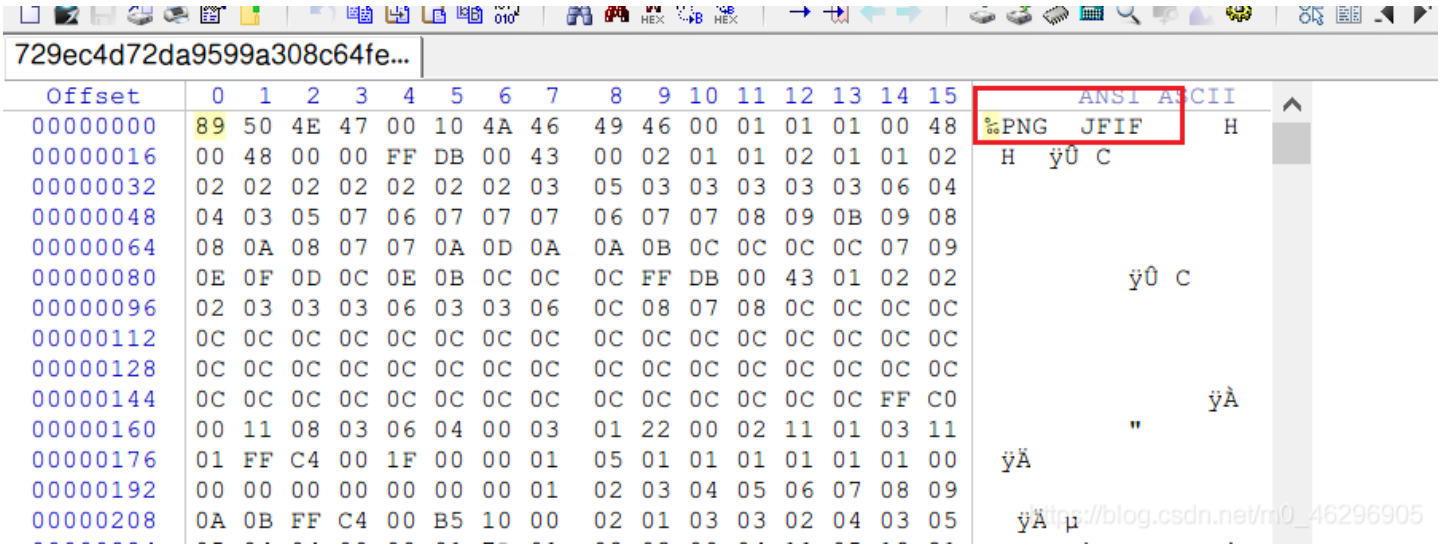


把文本以数据形式写入二进制文件

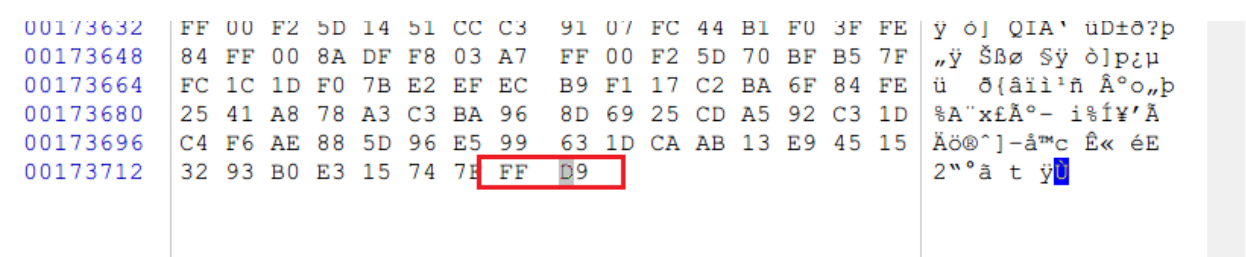
```
import binascii
hex_data=open('1.txt','r').read()
out=open('out.rar','wb')
out.write(binascii.unhexlify(hex_data))
out.close()
```

APCHPR破解密码

得到的照片放到winhex，发现被加了两个头



看文件尾知道原来是jpg文件



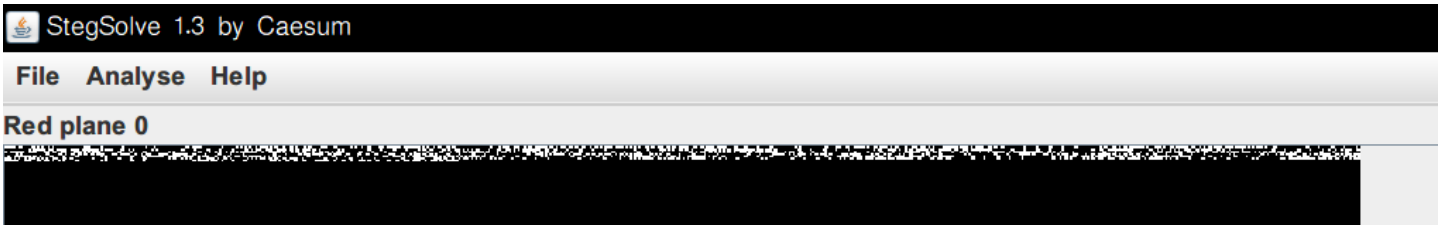
去掉png的头即可


```
flag{57cd4cfd4e07505b98048ca106132125}
```

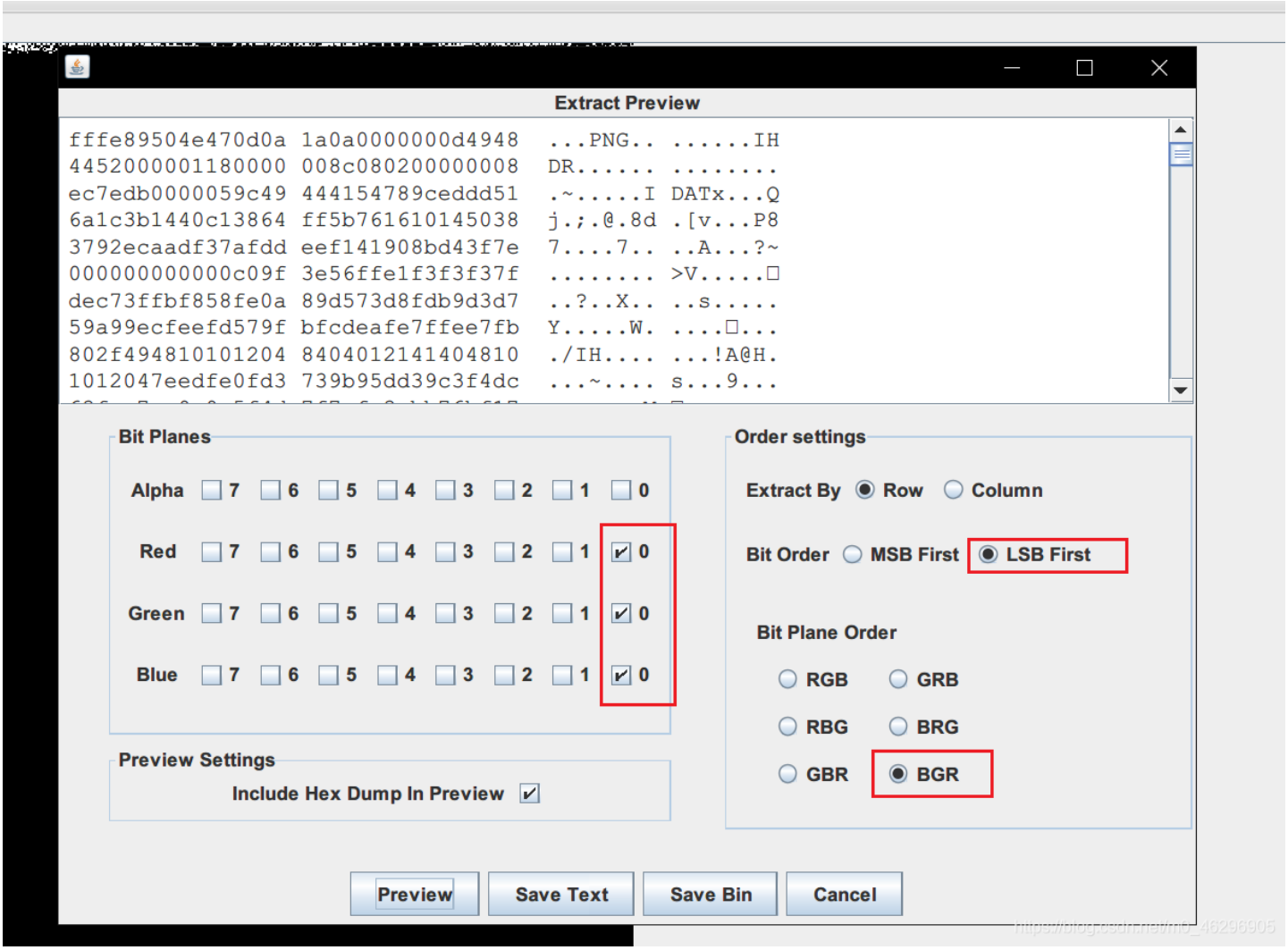
0x1C 喵喵喵

题目：喵喵喵，扫一扫

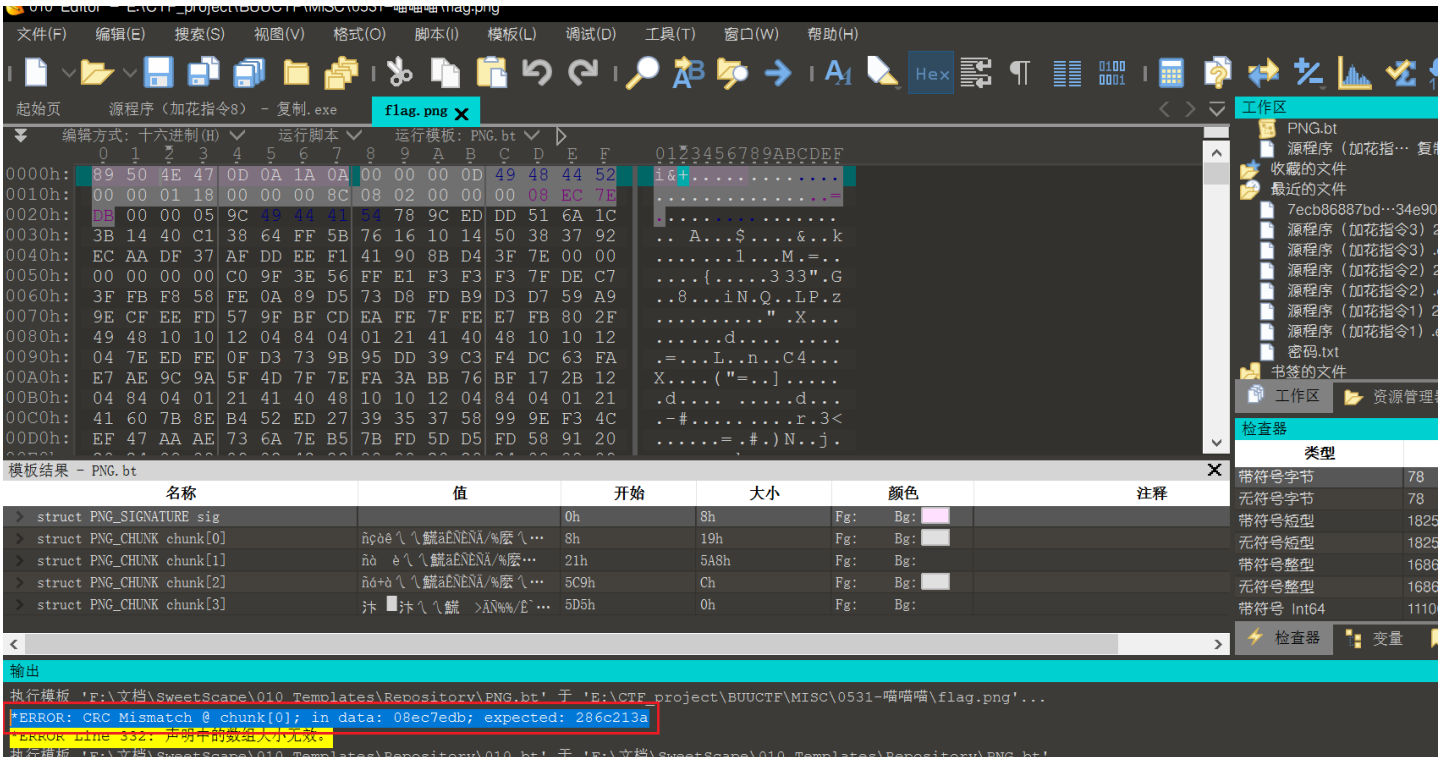
根据题目推测隐写了一个二维码，果然在0通道发现如下隐写的黑白方块

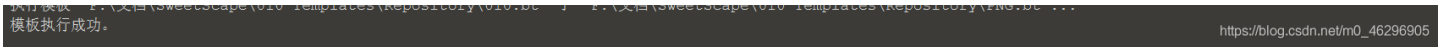


一开始在默认的RGB位平面顺序下没有看到文件头，就一个个尝试不同的位平面顺序，最终在选择位平面顺序是BGR的时候出现了PNG文件头，直接导出



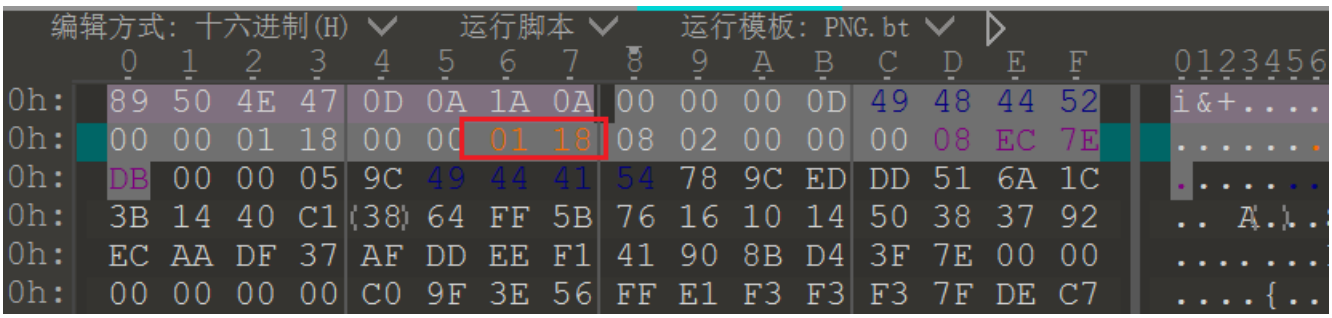
还要用`010 Editor`把前面的多余数据`FF FE`去掉，同时出现CRC不匹配的情况，





结合预览图片发现只有半张二维码，

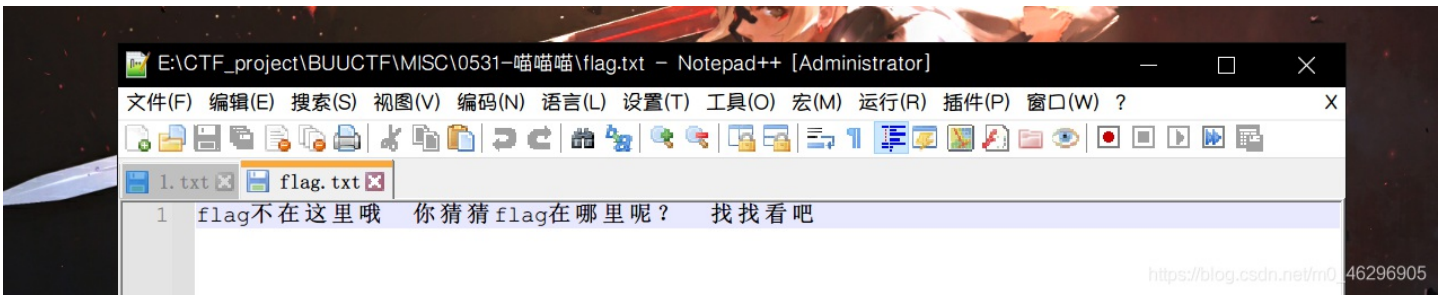
改一下 高 试试



得到如下二维码

是个百度网盘网址

又是个隐写文件



先试试`NTFS文件流隐写`，

> 使用NtfsStreamsEditor工具扫描需要注意：
> 1.解压需要在win7中使用winrar解压软件解压。
> 2.需要在win7系统中进行搜索。

导出一个`pyc`文件，用EasyPythonDecompiler工具或者在线反编译一下

```
# Embedded file name: flag.py
import base64

def encode():
    flag = '*************'
    ciphertext = []
    for i in range(len(flag)):
        s = chr(i ^ ord(flag[i]))
        if i % 2 == 0:
            s = ord(s) + 10
        else:
            s = ord(s) - 10
        ciphertext.append(str(s))

    return ciphertext[::-1]


ciphertext = ['96',
 '65',
 '93',
 '123',
 '91',
 '97',
 '22',
 '93',
 '70',
 '102',
 '94',
 '132',
 '46',
 '112',
 '64',
 '97',
 '88',
 '80',
 '82',
 '137',
 '90',
 '109',
 '99',
 '112']
```

贴上解密脚本

```
ciphertext = ['96','65','93','123','91','97','22','93','70','102','94','132','46','112','64','97','88','80','82'
,'137','90','109','99','112']
ciphertext.reverse() #逆置
flag=''
for i in range(len(ciphertext)):
 if i % 2 == 0:
  flag += chr((int(ciphertext[i]) - 10)^i)
 else:
  flag += chr((int(ciphertext[i]) + 10)^i)
print(flag)
```

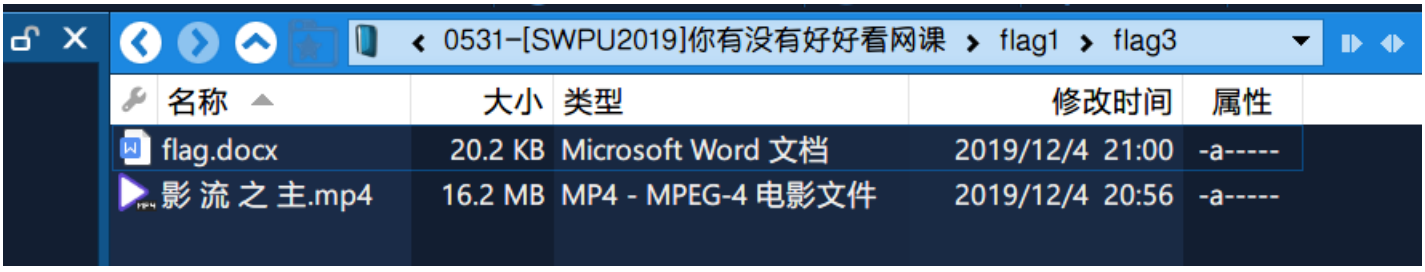
得到flag

```
flag{Y@e_Cl3veR_C1Ever!}
```

0x1D [SWPU2019]你有没有好好看网课？

两个压缩包，`flag3.zip`可以破解出来密码

得到两个文件，一个文档，一个无声的视频，



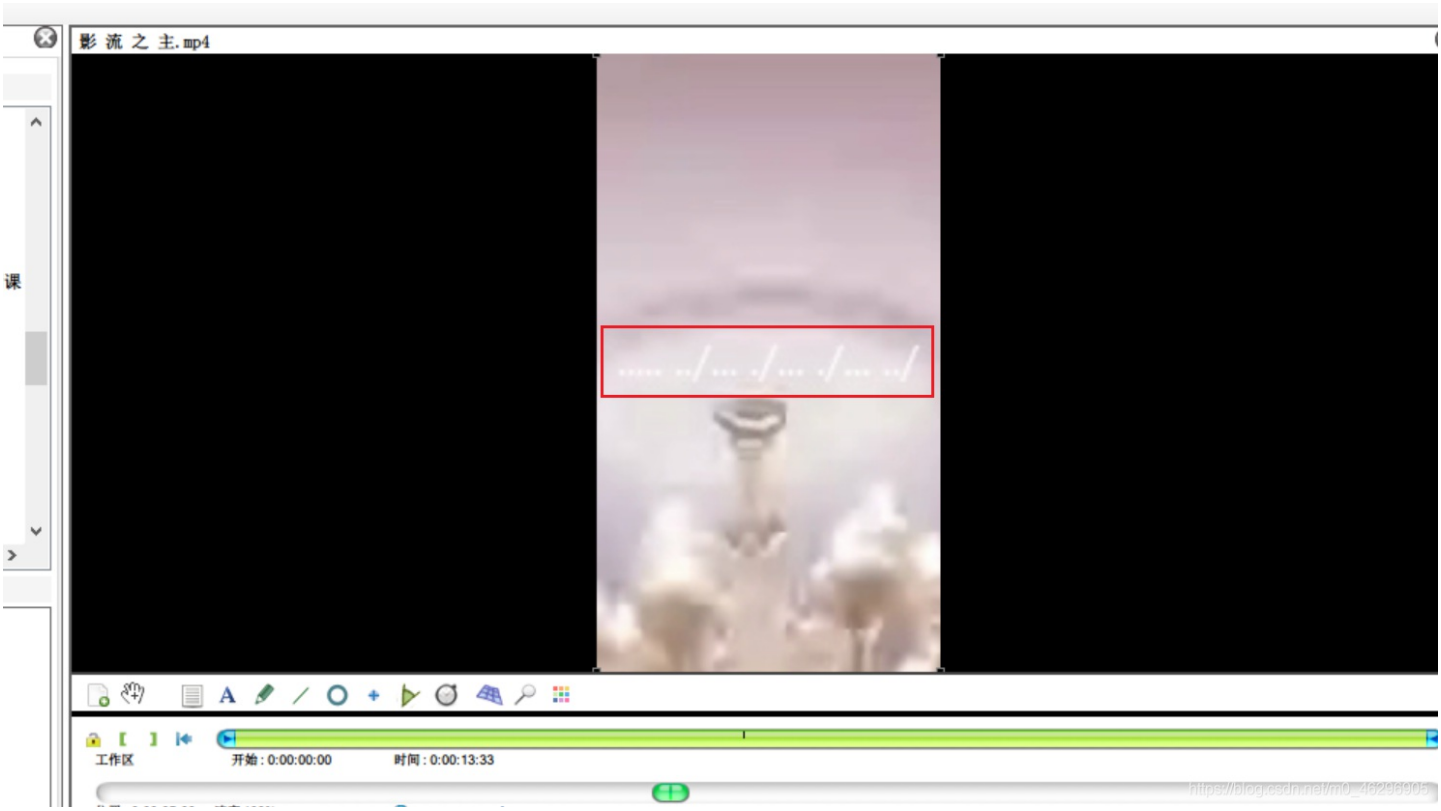
文档里面特别强调数字，猜测是在视频5分20秒和7分11秒的地方观察，

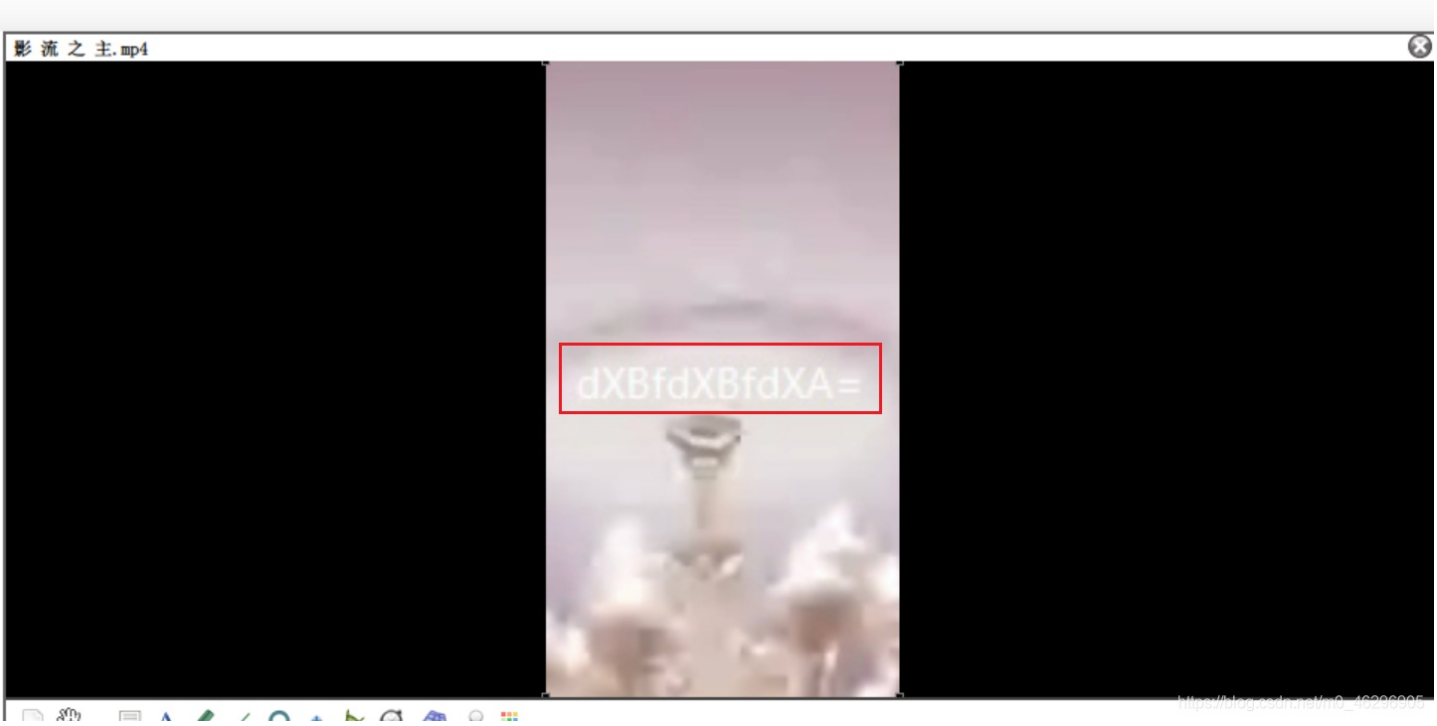
段落 样式

从小 5 就 20 列文虎克，

我每年的 7 月 11 日的生日愿望就是拥有一个🔍

用视频分析工具kinovea一帧一帧看一下，





得到两个有用信息，一个是敲击码，一个是base64

```
..... ../... ./... ./... .../
dXBfdXBfdXA=
```

敲击码

码表如下

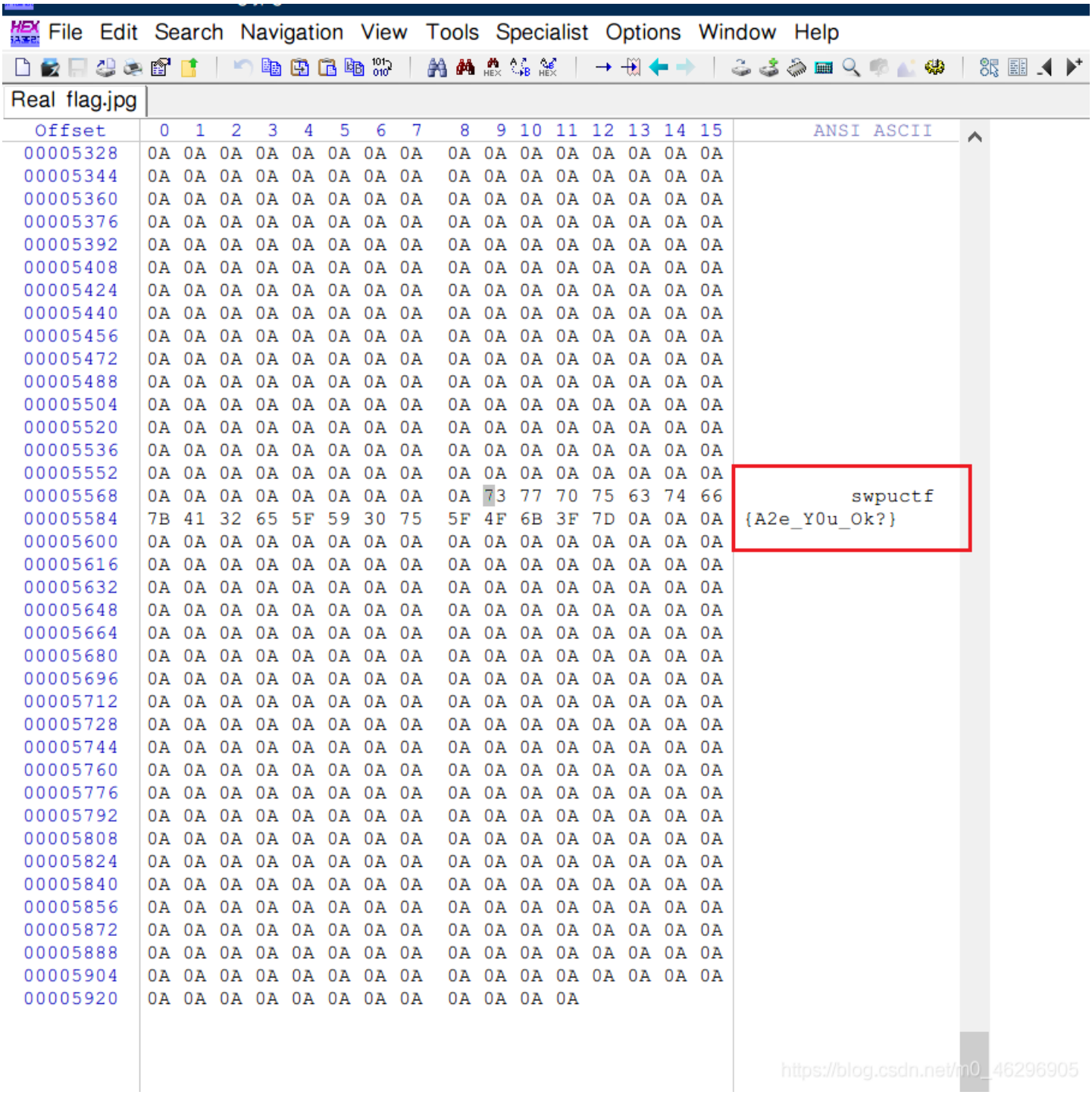
以 / 为字母间的分割， space空格 来分隔行列，如 对应5行2列的w

解密得到解压密码

```
wllmup_up_up
```

得到如下图片

搜索`flag`没搜到，那么试试`swpu`，搜索成功

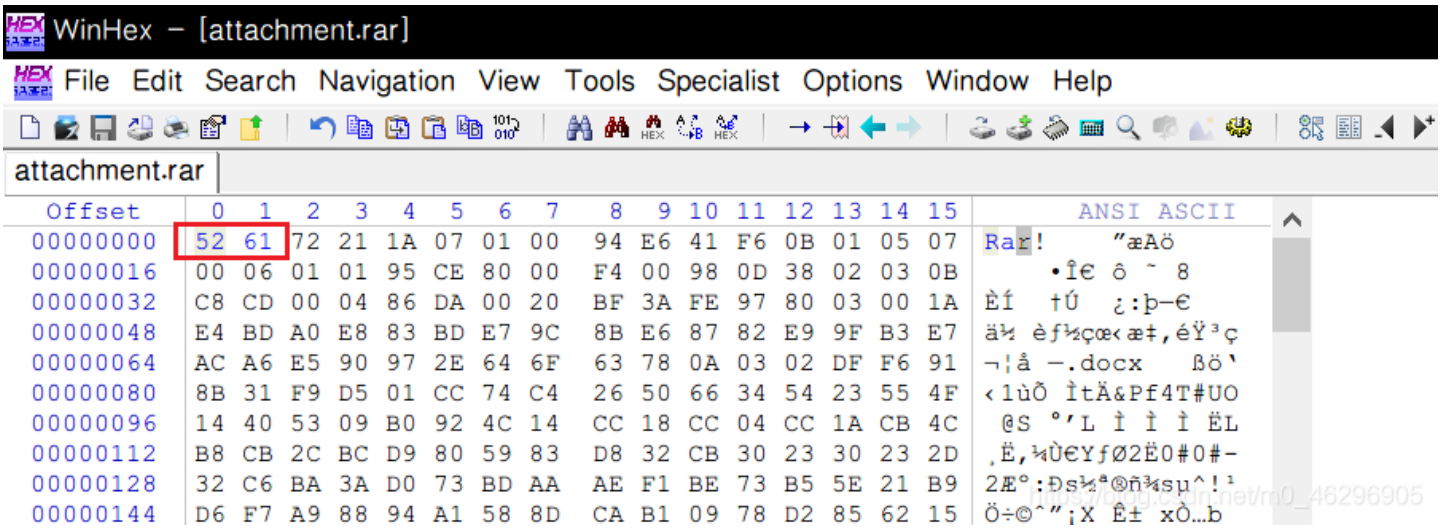


得到flag

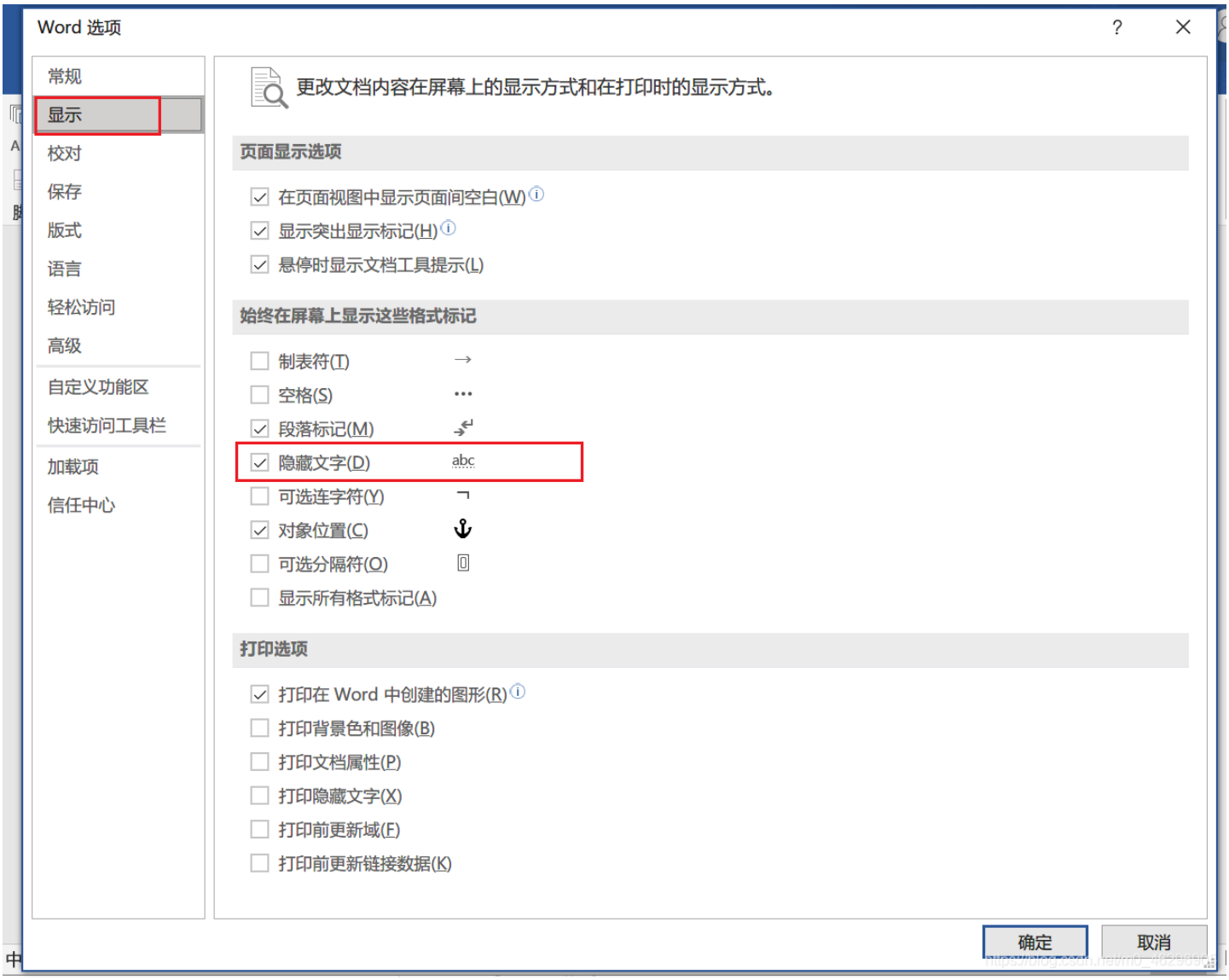
```
flag{A2e_Y0u_Ok?}
```

0x1E [MRCTF2020]你能看懂音符吗

文件头损坏，改一下文件头



解压后发现一个文档，看看有没有隐藏文字，点击`文件`，按照下图操作



然后发现一串音符密码，但不知道为什么复制不了

呀！一不小心把文档里的东西弄没了……↵

↵

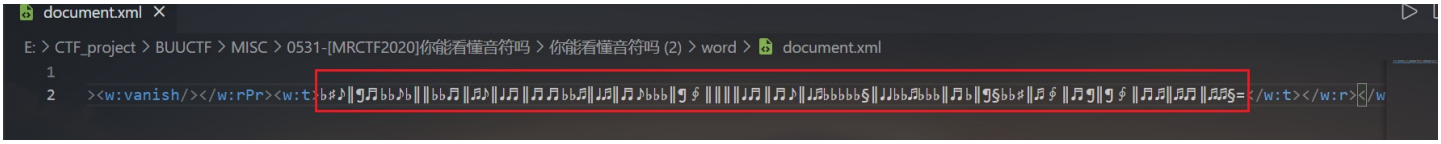
↵

↵

♭♯♪ ‖ ¶♬♭♭♪♭ ‖ ‖ ♭♭♬ ‖ ♫♪ ‖ ♩♬ ‖ ♬♬♭♭♫ ‖ ♩♫ ‖ ♬♪♭♭♭ ‖ ¶ 𝄞 ‖ ‖ ‖ ‖ ♩♬ ‖ ♬♪ ‖ ♩♫♭♭♭♭ 𝄞 ‖ 𝄀𝄁𝄁 𝄽𝄁𝄁𝄁 ‖ 𝄽𝄂 ‖ 𝄽𝄾 𝄞 ‖ 𝄽𝄽𝄾 ‖ 𝄽𝄽 𝄞 ‖ 𝄽𝄽¶ ‖ ¶ 𝄞 ‖ 𝄽𝄽 ‖ 𝄽𝄽 ‖ 𝄽𝄽 𝄞 ↵

这都让你发现了，可是你能看懂吗？↵

直接改doc为zip格式解压看doc文档源码，打开/word/document.xml



♭♯♪‖¶♬♭♭♪♭‖‖♭♭♬‖♬♪‖♩♬‖♬♬♭♭♬‖♩♬‖♬♪♭♭♭‖¶♯‖‖‖‖♩♬‖♬♪‖♩♬♭♭♭♭§‖♩♩♭♭♬♭♭♭‖♬♭‖¶§♭♭♯‖♬♯‖♬¶‖¶♯‖♬♬‖♬♬‖♬♬§=

在线网站解密

文本加密为音乐符号

♭♯♪‖¶♬♭♭♪♭‖ ‖♭♭♬‖♫♪‖♩♬‖♬♬♭♭♫‖♩♫‖♬♪♭♭♭‖¶♯‖‖‖♩♬‖♬♪‖♩♫♭♭♭♭♭§‖♩♩♭♭♫♭♭♭‖♬♭‖¶§♭♭♯‖♫♯‖♬¶‖¶♯‖♬♫‖♫♬‖♫♫§=

加密 解密 ☐使用密码

MRCTF{thEse_n0tes_ArE_am@zing~}

得到flag

```
flag{thEse_n0tes_ArE_am@zing~}
```