buu刷题 [ACTF新生赛2020]rome1

原创

元元努力向上 于 2022-01-11 23:17:30 发布 34 收藏
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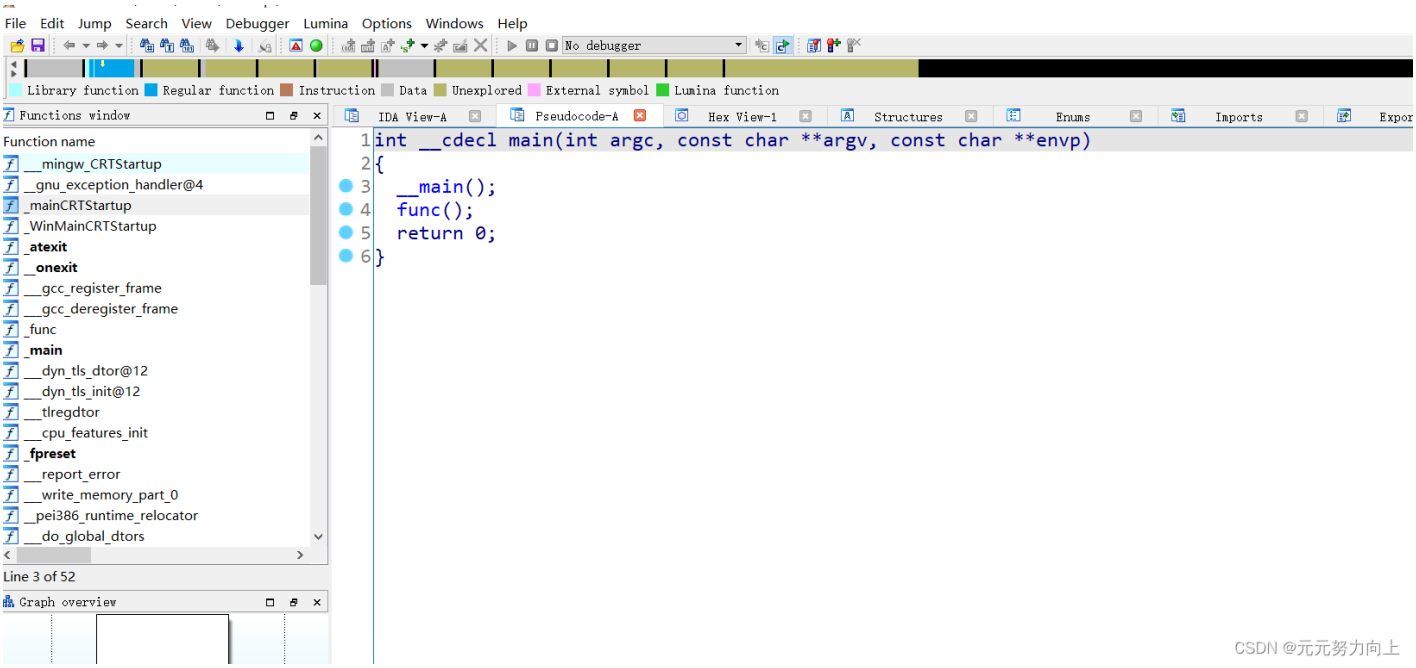
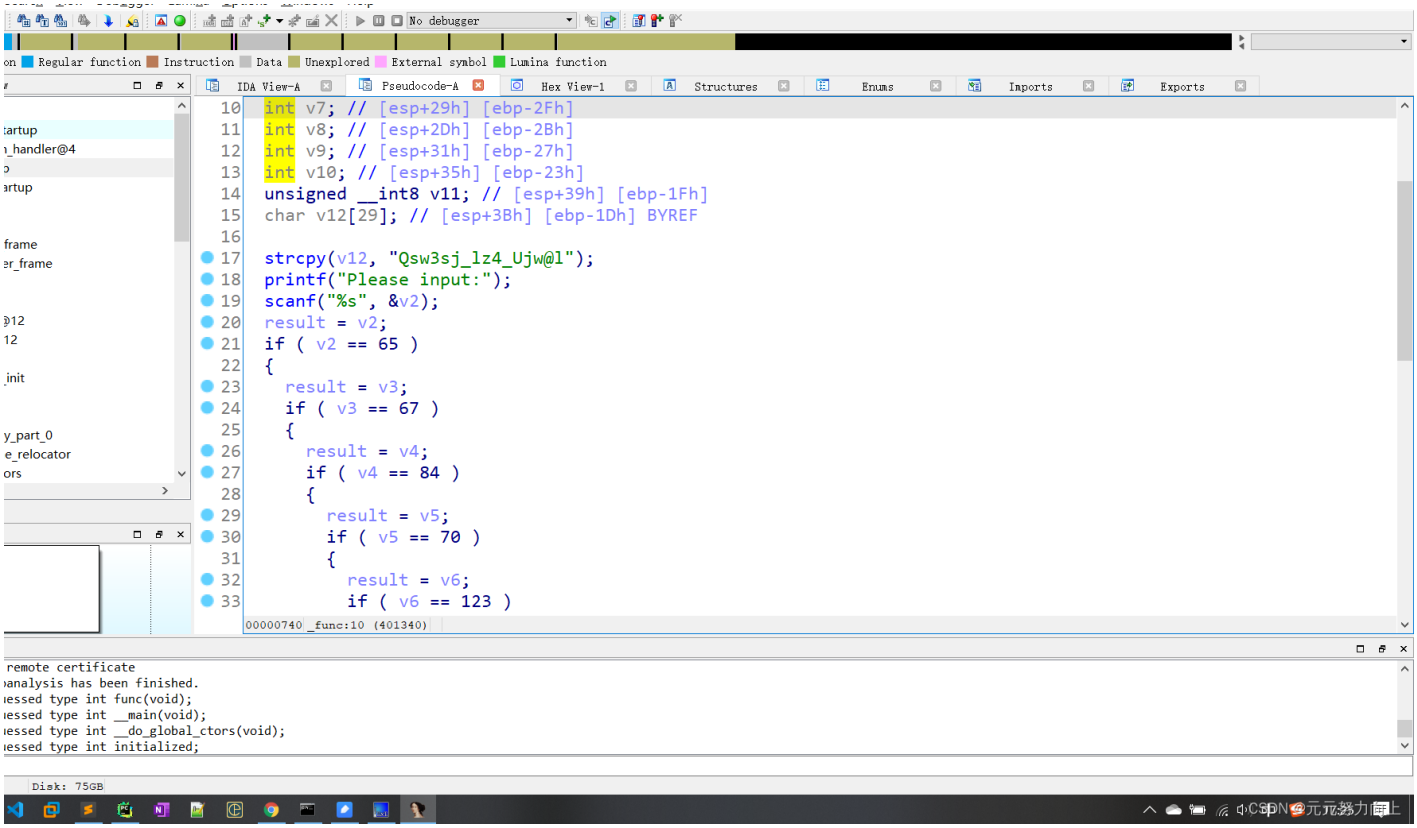
先查壳：

无壳 c++编译 32位

用ida打开



主函数没啥东西，进入func()看看：



发现一串字符，然后把ASCII变成char看一下：

```
scanf("%s", &v2);
result = v2;
if ( v2 == 'A' )
{
  result = v3;
  if ( v3 == 'C' )
  {
    result = v4;
    if ( v4 == 'T' )
    {
      result = v5;
      if ( v5 == 'F' )
      {
        result = v6;
        if ( v6 == '{' )
        {
          result = v11;
          if ( v11 == '}' )
          {
            v1[0] = v7;
```


这里肯定就是加密函数了：

```
int func()
{
  int result; // eax
  int v1[4]; // [esp+14h] [ebp-44h]
```

```
unsigned __int8 v2; // [esp+24h] [ebp-34h] BYREF
unsigned __int8 v3; // [esp+25h] [ebp-33h]
unsigned __int8 v4; // [esp+26h] [ebp-32h]
unsigned __int8 v5; // [esp+27h] [ebp-31h]
unsigned __int8 v6; // [esp+28h] [ebp-30h]
int v7; // [esp+29h] [ebp-2Fh]
int v8; // [esp+2Dh] [ebp-2Bh]
int v9; // [esp+31h] [ebp-27h]
int v10; // [esp+35h] [ebp-23h]
unsigned __int8 v11; // [esp+39h] [ebp-1Fh]
char v12[29]; // [esp+3Bh] [ebp-1Dh] BYREF

strcpy(v12, "Qsw3sj_lz4_Ujw@l");
printf("Please input:");
scanf("%s", &v2);
result = v2;
if ( v2 == 'A' )
{
  result = v3;
  if ( v3 == 'C' )
  {
    result = v4;
    if ( v4 == 'T' )
    {
      result = v5;
      if ( v5 == 'F' )
      {
        result = v6;
        if ( v6 == '{' )
        {
          result = v11;
          if ( v11 == '}' )
          {
            v1[0] = v7;
            v1[1] = v8;
            v1[2] = v9;
            v1[3] = v10;
            *&v12[17] = 0;
            while ( *&v12[17] <= 15 )
            {
              if ( *(v1 + *&v12[17]) > 64 && *(v1 + *&v12[17]) <= 90 )   //如果字符在64-90之间 那么字符=（字
                *(v1 + *&v12[17]) = (*(v1 + *&v12[17]) - 51) % 26 + 65;
              if ( *(v1 + *&v12[17]) > 96 && *(v1 + *&v12[17]) <= 122  //如果字符在96-122之间 那么字符=（字符
                *(v1 + *&v12[17]) = (*(v1 + *&v12[17]) - 79) % 26 + 97;
              ++*&v12[17];       //如果字符等于它本身那么 就返回自己
            }
            *&v12[17] = 0;
            while ( *&v12[17] <= 15 )
            {
              result = v12[*&v12[17]];
              if ( *(v1 + *&v12[17]) != result )
                return result;
              ++*&v12[17];
            }
            result = printf("You are correct!");
          }
        }
      }
    }
  }
```

```
    }
  }
  return result;
}
```

脚本：

```
a= 'ACTF{'
enc='Qsw3sj_lz4_Ujw@l'
s=''
for i in range(len(enc)):
    for n in range(128):
        j=n
        if j >64 and j<=90:
            j=(j-51)%26+65
        if j>96 and j<=122:
            j= (j-79)%26 +97
        if j==ord(enc[i]):
            a=a+chr(n)
print(a+'}')

ACTF{Cae3ar_th4_Gre@t}
```