[bugku逆向] love WriteUp



用IDA打开reverse.exe 界面如下

| IDA - reverse_3.exe C:\Users\ThinkPad\Downloads\reverse_3.exe File Edit Jump Search View Debugger Options Windows Help Image: | - O |
|---|--|
| Function name f j_wakepath_s j_set_startup_argv_mode_0 j_should_initialize_environment_3 j_should_initialize_environment_0 j_i_configthreadlocale j_i_crt_debugger_hook f j_set_initial_narrow_environment f i_set_initial_narrow_environment f i_set_initial_narrow_environment_2 f sub_411003 f sub_411098 | <pre>Is Stututes a la intens a la imports a la Exports a loc_415810: lea eax, [ebp+Dest] push eax ; Str call j_strlen add esp, 4 mov esi, esp push eax ; MaxCount push offset Str2 ; "e3nifIH9b_C@n@dH" lea ecx, [ebp+Dest] push ecx ; Str1 call de:strncmp add esp, 0Ch cmp esi, esp call jRTC_CheckEsp test eax, eax jz short loc_415851</pre> |
| i_j_cexit j_j_cexit j_j_cexit j_j_cexit j_j_cexit push offset awrc call sub_41132F add esp, 4 jmp short loc_4 jmp short loc_4 imput window | <pre>impFlag; "wrong flag!\n" inc_415851: push offset aRigthFlag; "rigth flag!\n" call sub_41132F add esp, 4 inc_415851 inc_41585 inc_41585 inc_41585 inc_41585 inc_41585 inc_41585 inc_41585 inc_4158 inc_41</pre> |

快捷键 shift+F12 打开字符串视图

File <u>E</u>dit <u>Jump Search View Debugger Options W</u>indows Help

| The East Stand Standards State | a ptions <u>m</u> in | | , | | | | | | | | | |
|---|----------------------|----------|----------|--|-----------------------|------------------------|------------------|---|-------|--|---|--|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 📃 Library function 🗧 Regular function 📕 Instruction 📗 Data 📕 Unexplored 🦲 External symbol | | | | | | | | | | | | |
| F Functions window 🛛 🗗 🛪 | 🖪 IDA View-A | 🗵 📑 Ps | eudocode | e−A 🗵 | 🔄 Strings window 🗵 | Hex View−1 🗵 | 🖪 Structures 🗵 | E | Enums | | 1 | |
| Function name | Address | Length | Туре | String | | | | | | | | |
| f j_wmakepath_s | s . text:00… | 00000007 | C | offset | | | | | | | | |
| <pre>jget_startup_argv_mode_0</pre> | 's'.text:00 | 000000C | С | base64i | nput | | | | | | | |
| <pre>jshould_initialize_environment_3</pre> | 's'.text:00 | 00000006 | С | input | | | | | | | | |
| <pre>jshould_initialize_environment_0</pre> | 's'.text:00 | 00000005 | С | nlen | | | | | | | | |
| <pre>f j_configthreadlocale</pre> | 's'.rdata:0… | 00000042 | С | ABCDEFG | HIJKLMNOPQRSTUVWXYZab | ocdefghijklmnoparstuvw | xvz0123456789+/= | | | | | |
| <pre>f jcrt_debugger_hook</pre> | s . rdata:0… | 00000017 | С | please | enter the flag: | | | | | | | |
| <pre>j_get_initial_narrow_environment</pre> | s . rdata:0… | 00000005 | С | %20s | | | | | | | | |
| <pre>jinitialize_default_precision</pre> | .rdata:0… | 000000D | С | wrong flag!\n | | | | | | | | |
| f start | s . rdata:0… | 0000001B | С | tack around the variable ' | | | | | | | | |
| f j_wcscpy_s | s . rdata:0… | 00000011 | С | ' was c | orrupted. | | | | | | | |
| f sub_411055 | 's'.rdata:0… | 000000E | С | he variable ' | | | | | | | | |
| <pre>f jscrt_fastfail</pre> | 's'.rdata:0… | 0000002B | С | ' is being used without being initialized. | | | | | | | | |
| <pre>f jscrt_is_ucrt_dll_in_use</pre> | 's'.rdata:0… | 000000D | С | rigth flag!\n | | | | | | | | |
| <pre>RTC_Failure(void *, int)</pre> | 's'.rdata:0… | 00000DD | С | The value of ESP was not properly saved across a function call | | | | | | | | |
| <pre>f jNtCurrentTeb</pre> | 's'.rdata:0… | 0000011D | С | A cast to a smaller data type has caused a loss of data. If this … | | | | | | | | |
| f sub_411073 | 's'.rdata:0… | 0000001D | С | Stack memory was corrupted\n\r | | | | | | | | |
| <pre>f jexcept_handler4_common</pre> | 's' . rdata:0… | 0000036 | С | A local variable was used before it was initialized\n\r | | | | | | | | |
| <pre>f jshould_initialize_environment_2</pre> | 's' . rdata:0… | 0000002C | С | Stack memory around alloca was corrupted\n\r | | | | | | | | |
| _RTC_AllocaFailure(void *, _RTC_ALLO | 's' . rdata:0… | 0000001E | С | Unknown Runtime Check Error\n\r | | | | | | | | |
| <pre>f jinitterm_e</pre> | 's'.rdata:0… | 00000011 | С | Unknown Filename | | | | | | | | |
| f sub_411091 | s . rdata:0… | 00000014 | С | Unknown Module Name | | | | | | | | |
| f sub_41109B | 's'.rdata:0… | 00000020 | С | Run-Time Check Failure #%d - %s | | | | | | | | |
| <u>f</u> j_cexit | 's' . rdata:0… | 00000026 | С | Stack corrupted near unknown variable | | | | | | | | |
| <u>f</u> jget_startup_argv_mode | s . rdata:0… | 00000006 | С | %. 2X | | | | | | | | |
| T i starit | 's'.rdata:0… | 00000049 | С | Stack a | rea around alloca me | emory reserved by this | function is cor… | | | | | |
| < >> | s . rdata:0… | 00000009 | С | \nData: | < | | | | | | | |
| Line 1 of 274 | 's' . rdata:0… | 0000002A | С | \nAlloc | ation number within t | this function: | | | | | | |
| ♣ Graph overview □ ♂ × | 's' . rdata:0… | 0000008 | С | \nSize: | | | | | | | | |
| | 's'.rdata:0… | 000000D | С | ∖nAddre | ss: Ox | | | | | | | |
| | 's' .rdata:0… | 00000048 | С | Stack a | rea around _alloca me | emory reserved by this | function is cor… | | | | | |
| TII | 's' .rdata:0… | 00000012 | С | %s%s%p% | s%zd%s%d%s | | | | | | | |
| | s].rdata:0… | 0000009 | С | %s%s%s% | s | | | | | | | |
| | Line 1 of 43 | | | | | | | | | | | |
| | 2.1.0 1 01 10 | | | | | | | | | | | |

🔲 Output window

找到关键词:base64(考虑是否是base64编码?)以及wrong/right flag的判断

双击wrong flag! 找到对应函数 ctrlX 后再F5可以打开对应的伪代码

```
🖪 Pseudocode-B 🖾
🖪 IDA Vie… 🖂
                                 🖪 Pseudocod… 🗵
                                                  🔄 Strings w
  6
      int v3; // edx
  7
      __int64 v4; // ST08_8
      signed int j; // [esp+DCh] [ebp-ACh]
  8
  9
      signed int i; // [esp+E8h] [ebp-A0h]
  10
      signed int v8; // [esp+E8h] [ebp-A0h]
  11
      char Dest[108]; // [esp+F4h] [ebp-94h]
      char Str; // [esp+160h] [ebp-28h]
  12
  13
      char v11; // [esp+17Ch] [ebp-Ch]
  14
• 15
      for (i = 0; i < 100; ++i)
  16
      {
• 17
        if ( (unsigned int)i >= 0x64 )
          j____report_rangecheckfailure();
18
19
        Dest[i] = 0;
  20
      }
21
      sub_41132F("please enter the flag:");
22
      sub_411375("%20s", &Str);
23
      v0 = j_strlen(&Str);
     v1 = (const char *)sub_4110BE(&Str, v0, &v11);
24
      strncpy(Dest, v1, 0x28u);
25
26
     v8 = j_strlen(Dest);
27
     for (j = 0; j < v8; ++j)
28
       Dest[j] += j;
29
      v2 = j_strlen(Dest);
30
      if ( !strncmp(Dest, Str2, v2) )
31
        sub_41132F("rigth flag!\n");
  32
     else
        sub_41132F("wrong flag!\n");
33
34
      HIDWORD(v4) = v3;
35
     LODWORD(v4) = 0;
36
      return v4;
37
```

观察代码成分 copy输入到dest并做了个累加 比较和str2的值

这里再根据之前base64的判断可能是输入的字符base64加密后加上index值,再转化成字符串,与 e3niflH9b_C@n@dH(点击str2就会定位到str2的字符串)比较 若一致则输出right flag

import base64 s='e3nifIH9b_C@n@dH' f='' n=len(s) for i in range(n): f+=chr(ord(s[i])-i) print(f) print(base64.b64decode(f)) Note: ThinkPad\AppData\Local\Programs\P e21fbDB2ZV95b3V9 b'{i_10ve_you}' Press any key to continue . . . https://blog.csdn.net/jiaqi0806

拿到flag



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