

可以看到,程序只有让输入的地方,没有确认按钮什么的。 在程序左侧,写着 Status: UNREGISTRIERT。

猜想:

- 1. 程序会根据输入框的变化事件来判断是否正确(其实是不正确的,到后面就知道了)。
- 2. 输入正确的序列号程序旁边的 Status 会改变。

2.简单查壳



使用 VB 编写的程序, 没有壳。

3.程序分析

使用 OD 载入程序, 搜索字符串。



常用链接

我的随笔

6

Q

(g+)

12 13 14

19 20 21



```
n Gandrena akegistriert>
dword ptr ss.[ebp-OxAC], Andréna aO
h Andréna sRegistriert>
dword ptr ss.[ebp-OxAC], Andréna aO
n Andréna aRegistriert>
dword ptr ss.[ebp-OxAC], Andréna aO
n Andréna akegistriert>
dword ptr ss.[ebp-OxAC], Andréna aO
n Andréna aRegistriert>
dword ptr ss.[ebp-OxAC], Andréna aO
word ptr ss.[ebp-OxAC], Andréna aO
                                                                                                                                  ET4TDTAFFTCTF82836DT4RRTATFTETBTCTD826D8KKETBTC
                                                                                                                           GISTRIERT
317E747$7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
                                                                                                                                TET4T#7AFF7CTF82836D74RR7ATF7ETB7CTD826D81KETB7C
                                                                                                                             17E747D7AFFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7(
dword ptr ss: [ebp-OxAC], Andrena all the Andrena aRegistriert)

dword ptr ss: [sbp-OxAC], Andrena all the Andrena aRegistriert)

dword ptr ss: [sbp-OxAC], Andrena all the Andrena aRegistriert)

dword ptr ss: [ebp-OxAC], Andrena all the Andrena aRegistriert)

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dword ptr ss: [ebp-OxAC], Andrena all the Andrena aRegistriert)
                                                                                                                             17E747D7A7D7C7F82836D74G47A7F7E7B7C7D826D817E7B7C
GISTRIERT
                                                                                                                              TET4TDTATDTCTF82836DT4T4TATFTETBTCTD826D8HTETBTC
                                                                                                                           317E747D7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
3GISTRIERT
                                                                                                                         817E747D7A7D7C7F82836D74747A7F7E7G7C7D826D817E7B7C
                                                                                                                             17E747D7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KEZB7C
                                                                                                                          817E747D7AFP7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
                                                                                                                               TET4TGTAFFTCTF82836DT4RRTATFTETBTCTD826D81KETBTC
SISTRIERT
                                                                                                                             17E747Duaff7c7f82836D74RR7a7f7E7B7C7D826D81KE7B7C
GISTRIERT
                                                                                                                            117ETWODTAFF7CTF82836DT4RRTATF7ETB7CTD826D81KETB7C
GISTRIERT
                                                                                                                       http://beam.to/cugABCDEFGHIJKLMNOFQRSTUVWXYZ1234567
REGISTRIERT
0817E747D7AFF7C7F82836D74RR7A7F7E7E7C7D826D8KKE7B7C
                                                                                                                             17E747$7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
                                                                                                                          817E747#7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
                                                                                                                                                     AFFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7
                                                                                                                             17E747G7AFF7C7F82836D74RR7A7F7E7B7C7D826D81KE7B7C
                                                                                                                              TET4TDTATDTCTF82836DT4T4TATFTETBTCTR826D81TETBTC
                                                                                                                           817E747D7A7D7C7F82836D74747A7F7E7B7C7D826D8H7E7B7C
                                                                              KAndréna, al
```

可以看到有很多的很相似的字符串,还有很多个 "REGISTRIERT"。

我们也不知道这是什么东西,随便双击一个进入代码。

```
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100
```

可以发现,这代码和009和010非常相像。

都是先求得输入的长度,然后建立循环,最后再进行比较。

但是这里,一个代码块有很多的这样的组合。

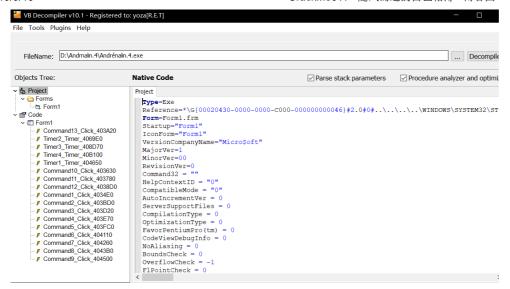
这是为什么呢?

我们先在比较函数处下断点。

```
| BDH082F2 | . 80EA 24 | add esp, bc24 | bDH082F5 | . 80EA 26 | comterns | company | c
```

我们没有进行任何操作,程序就立刻中断了。 猜想程序可能使用了定时器。我们使用 VB Decompiler 加载程序





可以看到有4个定时器。

每个定时器代码块,里面都是很多个上面那样的代码。

```
0040B101
                 8BEC
                                      v ebp,esp
0040B103
                 83EC 0C
                                                                                            SE 处理程序安装
9949B196
                 68 F6114000
                                         <jmp.&MSVBVM60.__vbaExceptHandler>
0040B10B
                 64:A1 000000
                                    mov eax,dword ptr fs:[0]
0040B111
                 50
                                    oush eax
                 64:8925 0000 mov dword ptr fs:[0],esp
81EC A003000 sub esp,0x3A0
0040B112
0040B119
0040B11F
                                                                                            msvbvm60.rtcLeftCharVar
                 56
                                                                                            msvbvm60.__vbaStrVarVal
msvbvm60. vbaVarMove
0040B120
                                       h esi
                                                                                            msvbvm60._
0040B121
                 57
                                    oush edi
                 8965 F4 mov dword ptr ss:[ebp-0x0],esp

C745 F8 E011 mov dword ptr ss:[ebp-0x8],Andréna.0040

mov edi,dword ptr ss:[ebp+0x8]
0040B122
0040B125
0040B12C
                                   mov eax,edi
and eax,0x1
0040B12F
                 8BC7
                                                                                            msvbvm60.__vbaVarMove
0040B131
                 83E0 01
0040B134
                 8945 FC
                                   mov dword ptr ss:[ebp-0x4],eax
0040B137
                 83E7 FE
                                   and edi,-0x2
                                                                                            msvbvm60.__vbaVarMove
msvbvm60.__vbaVarMove
0040B13A
0040B13B
                 897D 08
                                    mov dword ptr ss:[ebp+0x8],edi
                                   mov ecx,dword ptr ds:[edi]
call dword ptr ds:[ecx+8x4]
mov edx,dword ptr ds:[edi]
0040B13E
                 8B 0F
0040B140
                 FF51 04
                 8B17
0040B143
                                                                                            msvbvm60.__vbaStrVarVal
msvbvm60.__vbaVarMove
0040B145
                 33F6
                                   xor esi,esi
0040B147
                 8975 DC
8975 CC
                                   mov dword ptr ss:[ebp-0x24],esi
mov dword ptr ss:[ebp-0x34],esi
0040R148
                                                                                            msvbvm60.__vbaStrVarVal
                                                                                            msvbvm60.__vbaStrVarVal
msvbvm60._vbaStrVarVal
0040B14B
```

```
Step8 = 00000006
884839C
8848336
8848336
8848337
8848337
8848337
8848333
8848333
8848336
8848336
8848336
8848336
8848336
                                                                                                                      -var18 = 0012FB44
retBuffer8 = 0012FAC4
msvbvm60.__vbaStrVarVa1
msvbvm60.__vbaStrVarVa1
                                                                                                                        d8 = 0012FB44
                                                                                                                     Start8 = 00000006
                                                                                                                     TMPend8 = 0012FB44
                                                                                                                     TMPstep8 = 0012FAC4
Counter8 = 00000006
                    all dword ptr ds:[<&MSUBUM68.__ubaVar
ov esi,dword ptr ds:[<&MSUBUM68._uba
ov ebx,dword ptr ds:[<&MSUBUM68.#rtcl
0040B3CI
                                                                                                                     .__vbaVarForInit
msvbvm60.__vbaStrVarVal
msvbvm60.rtcLeftCharVar
0040B3D:
 3040B3D
 3040B3D1
                                              lest eax,can
j<mark>e</mark> Andréna.9049B510
Lea eax,dword ptr ss:[ebp-0x44]
 1848R3F
  040B3E
                                              lea ecx,dword ptr ss:[ebp-0x74]
                                                                                                                     msvbvm60.rtcLeftCharVar
                                                         k,dword ptr ss:[ebp-0x74]
k,dword ptr ss:[ebp-0x50]
                                                                                                                     msubum60. ubaStrVarVal
                                                                                                                     msvbvm60.rtcR8ValFromBstr
```

先分析程序的算法



```
Step8 = 0012FB44
8D55 9C
51
52
                               x,dword ptr ss:[ebp-0x64]
                                                                                       -var18 = 0012FAC4
retBuffer8 = 00000006
50
8D85 3CFFFFF
8D8D 68FDFFF
50
                                                                                      End8 = 0012FB44
                       lea eax,dword ptr ss:[ebp-0xC4]
Lea ecx,dword ptr ss:[ebp-0x298]
                                                                                      Start8 = 0012FB44
50
8D95 78FDFFFI
51
8D45 DC
52
                      lea edx,dword ptr ss:[ebp-0x288]
                                                                                      TMPend8 = 0012FAC4
                      lea eax,dword ptr ss:[ebp-0x24]
TMPstep8 = 00000006
Counter8 = 0012FB44
                             dword ptr ds:[<&MSUBUM60
eax.eax
                       j<mark>e</mark> Andréna.004065D9
Lea ecx,dword ptr ss:[ebp-0x44]
                                                                                     取得字符数
                      lea edx,dword ptr ss:[ebp-0x74]
                                                                                      取左边 2 个字符
                      lea eax,dword ptr ss:[ebp-0x74]
lea ecx,dword ptr ss:[ebp-0x50]
                                                                                      msubum60.__ubaStrUarUal
转化为字符串
转化为浮点数
将 ST 弹出到指定内存
                            dword ptr ds:[<RMSUBUM68.#rtcR8U
qword ptr ss:[ebp-0xCC]
edx,dword ptr ss:[ebp-0x64]
eax,dword ptr ss:[ebp-0x24]
```

```
C745 A4 0100
C745 9C 0200
904064DB
004064E2
                             nov dword ptr ss:[ebp-0x64],0x2
004064E9
             FF15 AC10400
                                                                          msvbvm60.__vbaI4Var
004064EF
              8D4D BC
                             lea ecx,dword ptr ss:[ebp-0x44]
004064F2
             50
                                 eax
             8D55 B8
004064F3
                            lea edx,dword ptr ss:[ebp-0x48]
004064F6
                               h ecx
004064F7
                                h edx
004064F8
              FFD6
                                                                          转化为字符串
004064FA
                   4010400
004064FF
00406501
                                                                         edx = 取得字符
              8BD 0
00406503
             8D4D B4
                            lea ecx,dword ptr ss:[ebp-0x4C]
                                                                         msubum60.__ubaStrMove
Cstring = "ゴ
转化为十六进制
00406506
              FF15 BC10400
0040650C
             50
             FF15 2010400
                                 dword ptr ds:[<&MSUBUM60.#rtcAnsiV
0040650D
00406513
             0FBFC0 movsx eax,ax
8985 60FCFFF mov dword ptr ss:[ebp-0x3A0],eax
8D8D 7CFFFFF lea ecx,dword ptr ss:[ebp-0x84]
00406516
0040651C
              DB85 60FCFFFI
                                                                          将hex转化为10进制弹出到STG
00406522
                                 dword ptr ss:[ebp-0x3A0]
00406528
              51
             C785 7CFFFFFF mov dword ptr ss:[ebp-8x84],0x5
DD9D 58FCFFFF Fstp qword ptr ss:[ebp-8x3A8]
00406529
             DD9D 58FCFFFI
DD85 58FCFFFI
00406533
                                                                          将 STO 弹回该地址
00406539
                                 qword ptr ss:[ebp-0x3A8]
                                                                          加上前两个字符的浮点数
相加的值保存在该地址
0040653F
              DC85 34FFFFFI
                                 qword ptr ss:[ebp-0xCC]
00406545
             DD5D 84
                                  qword ptr ss:[ebp-0x70]
00406548
             DFE0
0040654A
              A8 0D
0040654C
              0F85 7A04000
                                Andréna.004069CC
             00406552
                                                                          将相加的值转化为hex
00406558
0040655E
00406561
00406567
00406568
              8D8D 5CFFFFF lea ecx, dword ptr ss:[ebp-0xA4]
```



```
0040656E
0040656F
               C785 6CFFFFFF
FF15 8410400
                                nov dword ptr ss:[ebp-0x94],0x8
all dword ptr ds:[<&MSUBUM60.__ubaVarC
00406570
0040657A
00406580
                                                                               msvbvm60. vbaVarCat
               RRDA
                                   edx,eax
                               lea ecx,dword ptr ss:[ebp-0x34]
00406582
               8D4D CC
00406585
               FFD7
                                                                               msvbvm60.__vbaVarMove
                                   edi
00406587
               8D55 B0
                               lea edx,dword ptr ss:[ebp-0x50]
0040658A
               8D45 B4
                               lea eax,dword ptr ss:[ebp-0x4C]
0040658D
               52
0040658E
00406591
               8D4D B8
                               lea ecx,dword ptr ss:[ebp-0x48]
               50
00406592
               51
                                oush ecx
00406593
               6A 03
               FF15 9C10400
8D95 6CFFFFF
00406595
                                    dword ptr ds:[<&MSUBUM60.
                                                                               msvbvm60.__vbaFreeStrLis
                               lea edx,dword ptr ss:[ebp-0x94]
0040659B
004065A1
               8D85 7CFFFFFI
                               lea eax,dword ptr ss:[ebp-0x84]
004065A7
               52
                                    ed
004065A8
004065AB
               8D4D 8C
                               lea ecx,dword ptr ss:[ebp-0x74]
               50
               8D55 9C
004065AC
                               lea edx,dword ptr ss:[ebp-0x64]
004065AF
                                    ecx
004065B0
               52
                                    edx
004065B1
               6A 04
004065B3
004065B9
004065BC
               FF15 1410400
                                    dword ptr ds:[<&MSVBVM60.__vbaFreel
                                                                               msvbvm60.__vbaFreeVarLis
                               add esp,0x24
lea eax,dword ptr ss:[ebp-0x298]
               8304 24
               8D85 68FDFFFI
004065C2
               50
                                   h eax
                                                                               rTMPend8 = 0012FB44
004065C3
               8D8D 78FDFFFI
                               lea ecx,dword ptr ss:[ebp-0x288]
004065C9
               8D55 DC
                               lea edx,dword ptr ss:[ebp-0x24]
                                                                               TMPstep8 = 0012FAC4
Counter8 = 00000006
004065CC
               51
004065CD
                                   <mark>l</mark> dword ptr ds:[<&MSVBVM60.__vbaVarl
Andréna.004064A8
004065CE
               FF15 C810400
               E9 CFFEFFF
004065D4
004065D9
               8D45 CC
                                   eax, dword ptr ss:[ebp-0x34]
                     4CFFFF
```

- 1. 程序先计算出我们输入的序列号的长度
- 2. 建立循环,循环次数是序列号的长度
- 3. 在循环中,程序取得我们输入序列号的前两个字符,将其转化为浮点数,保存在内存中
- 4. 然后程序依次取得序列号的单个字符,将其转化为使用10进制表示的 ASCII 码
- 5. 将上述两个值相加,再转化为十六进制
- 6. 将每个字符和前两个字符相加的值连接起来

最后程序将这个字符串和一串字符串相比较,相同就注册成功。

由于我们输入的序列号最后转化的字符串是十六进制表示的,所以相比较的字符串也应该是在 0-9, A-F 范围内的,这样我们很容易就确定了真正的用来比较的字符串: "081 7E 74 7D 7A 7D 7C 7F 82 83 6D 74 74 7A 7F 7E 7B 7C 7D 82 6D 8H 7E 7B 7C".

由于最后生成的字符串,是和我们输入的序列号的前两位息息相关的。

前两位越大, 最后每个字符相对应的也就越大。

前两位不一样,最后每个数字相对应的也就不一样。

根据正确的比较码,我们可以反推出正确的序列号:

74*3032589#**0541238#7412





相关文件在我的 Github: https://github.com/UnreachableLove/160-Crackme/tree/master/Crackme011



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