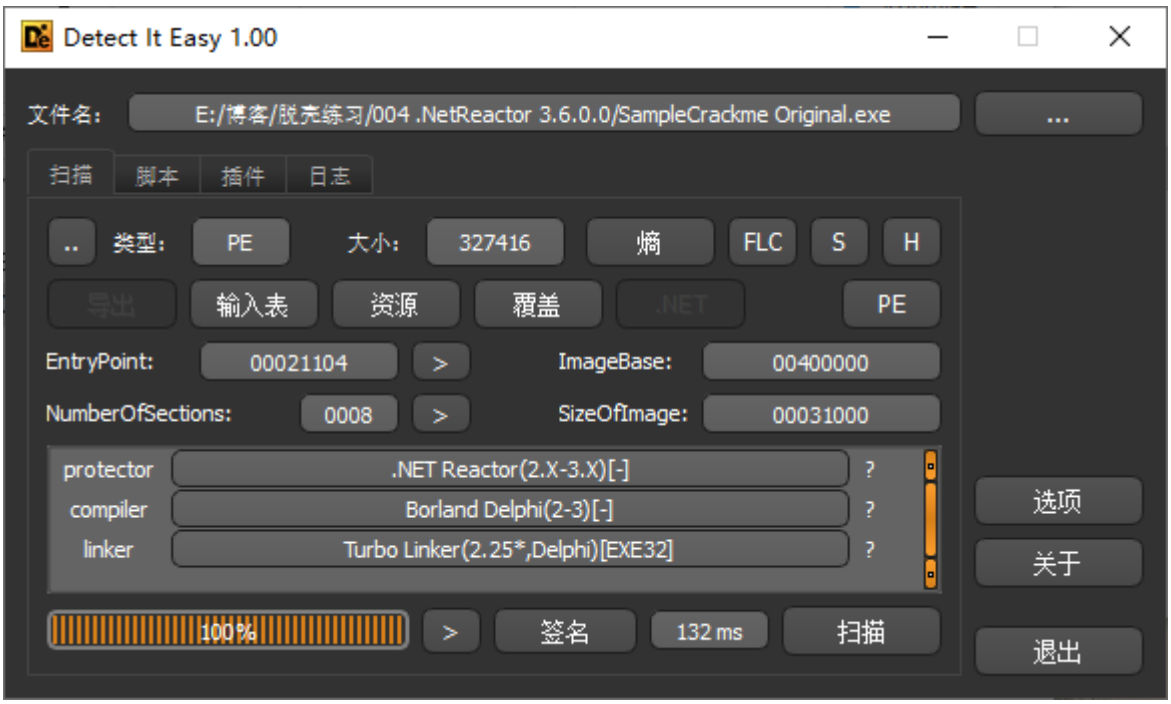
前言

最近一直在看脱壳的相关资料，看到了Tuts4you社区脱壳脚本的教程，这个壳我感觉很不错，挺有意思的，于是打算将内容整理下分享出来。

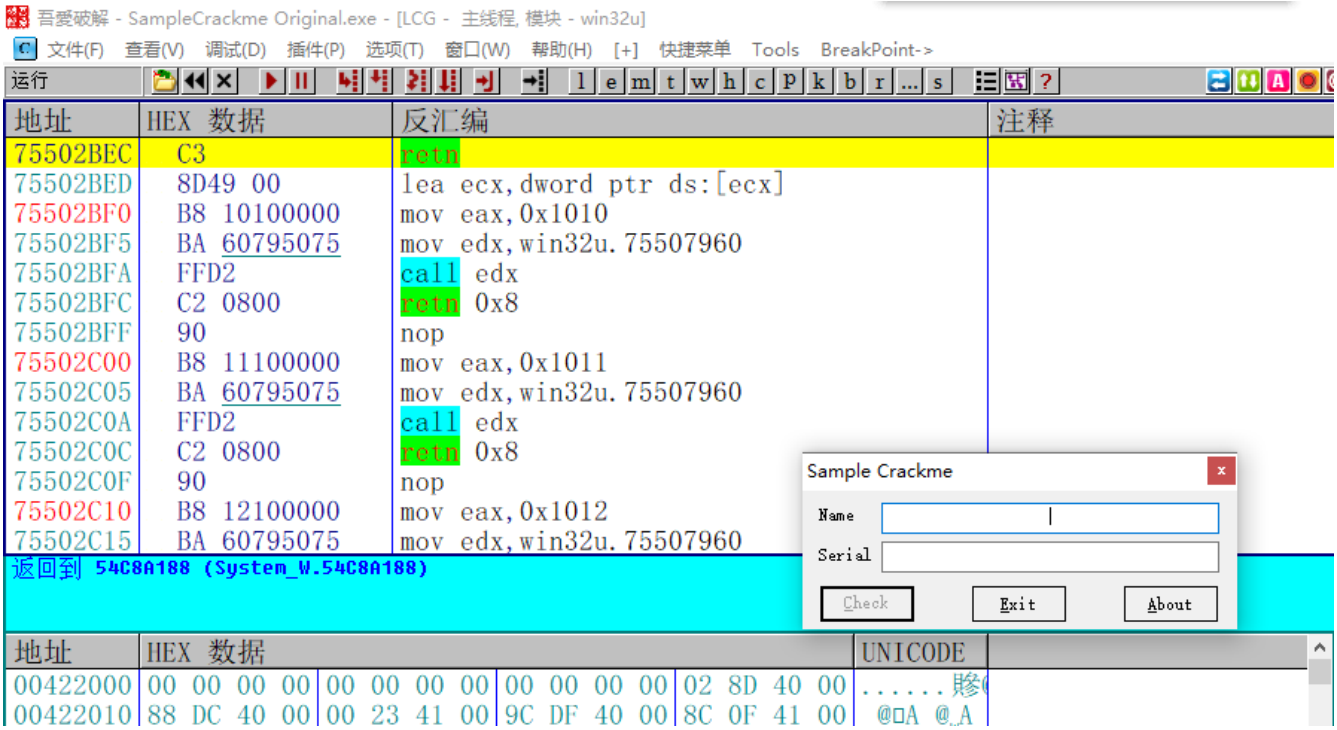
查壳



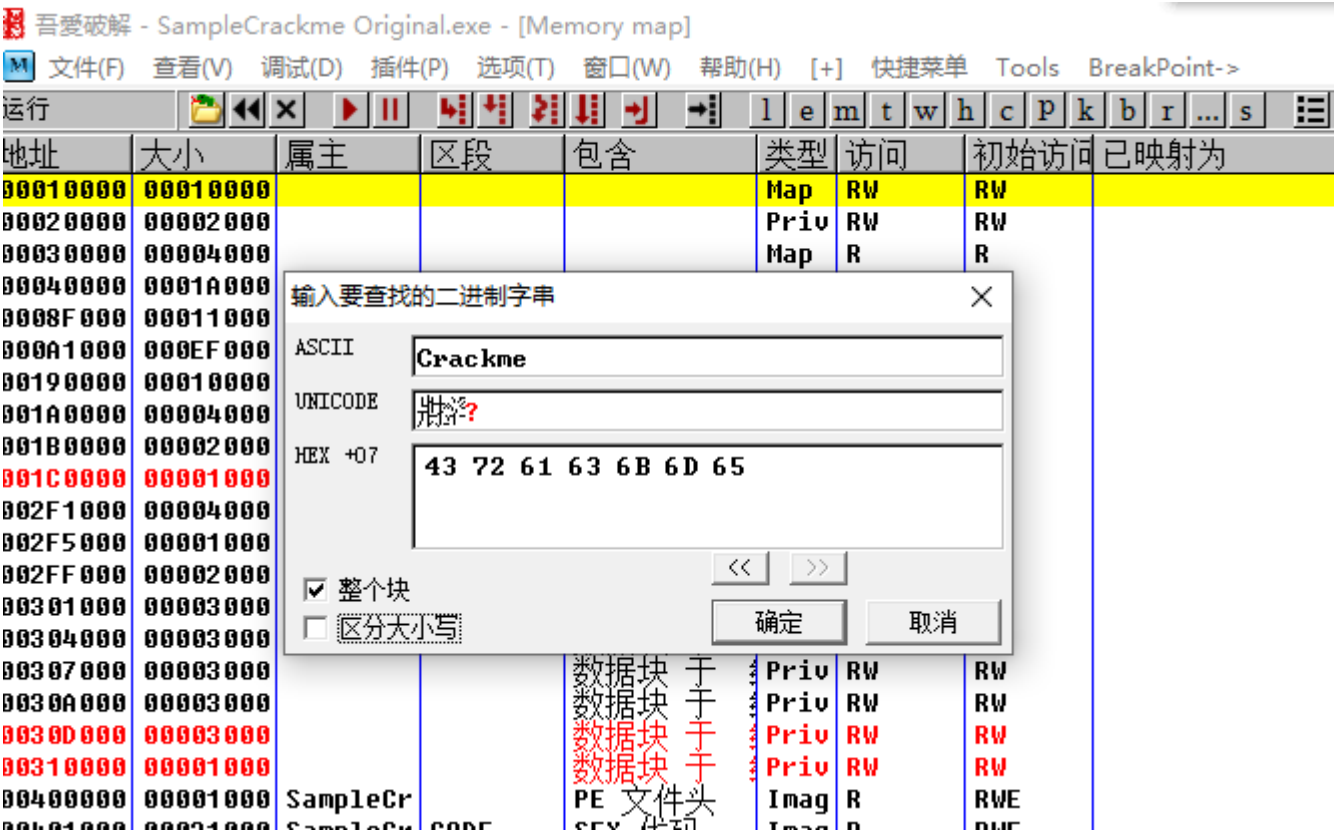
这个壳是.NetReactor 3.6.0.0的版本。根据作者的介绍，这个壳只是一个包装器，它包装目标程序，然后将其全部解包到内存中执行。但是这是一种不安全的方法，因为有人可以将内存中的目标程序转储回文件并完全恢复程序集。这个壳的重点在于转储之后的修复，需要对PE文件有一定的了解。

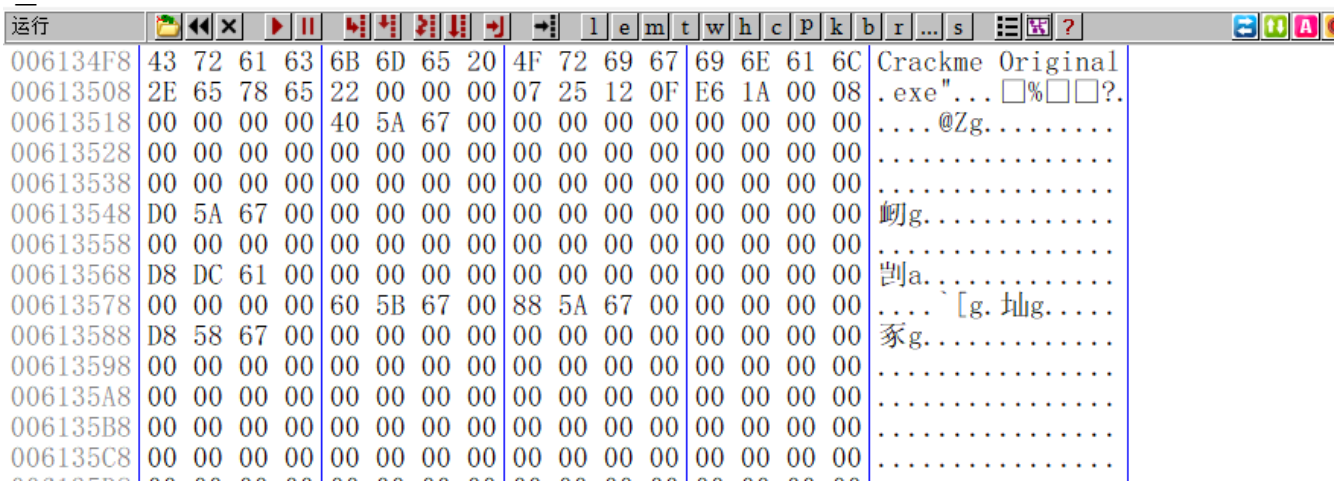
脱壳

接下来直接载入OD，F9让程序运行起来。



接着调出内存窗口，为了锁定目标程序被解压的位置，因为这个crackme实际上也是作者写的，所以选择通过搜索关键字符串的方法，搜索Crackme



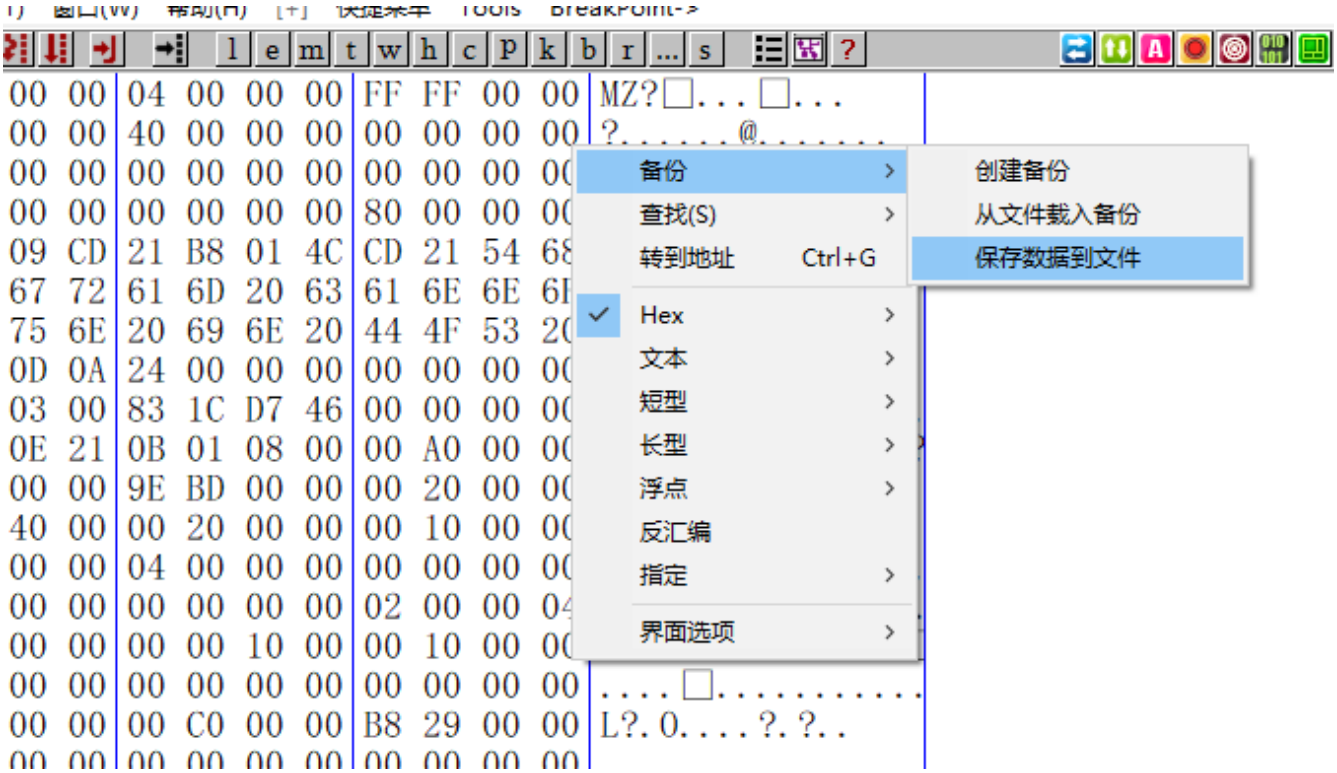


```
运行
006134F8 43 72 61 63 6B 6D 65 20 4F 72 69 67 69 6E 61 6C Crackme Original
00613508 2E 65 78 65 22 00 00 00 07 25 12 0F E6 1A 00 08 .exe"...□%□□?.
00613518 00 00 00 00 40 5A 67 00 00 00 00 00 00 00 00 00 ....@Zg.........
00613528 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
00613538 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
00613548 D0 5A 67 00 00 00 00 00 00 00 00 00 00 00 00 00 岟g............
00613558 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
00613568 D8 DC 61 00 00 00 00 00 00 00 00 00 00 00 00 00 凯a............
00613578 00 00 00 00 60 5B 67 00 88 5A 67 00 00 00 00 00 ....`[g.圴g.....
00613588 D8 58 67 00 00 00 00 00 00 00 00 00 00 00 00 00 豕g............
00613598 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
006135A8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
006135B8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
006135C8 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
```

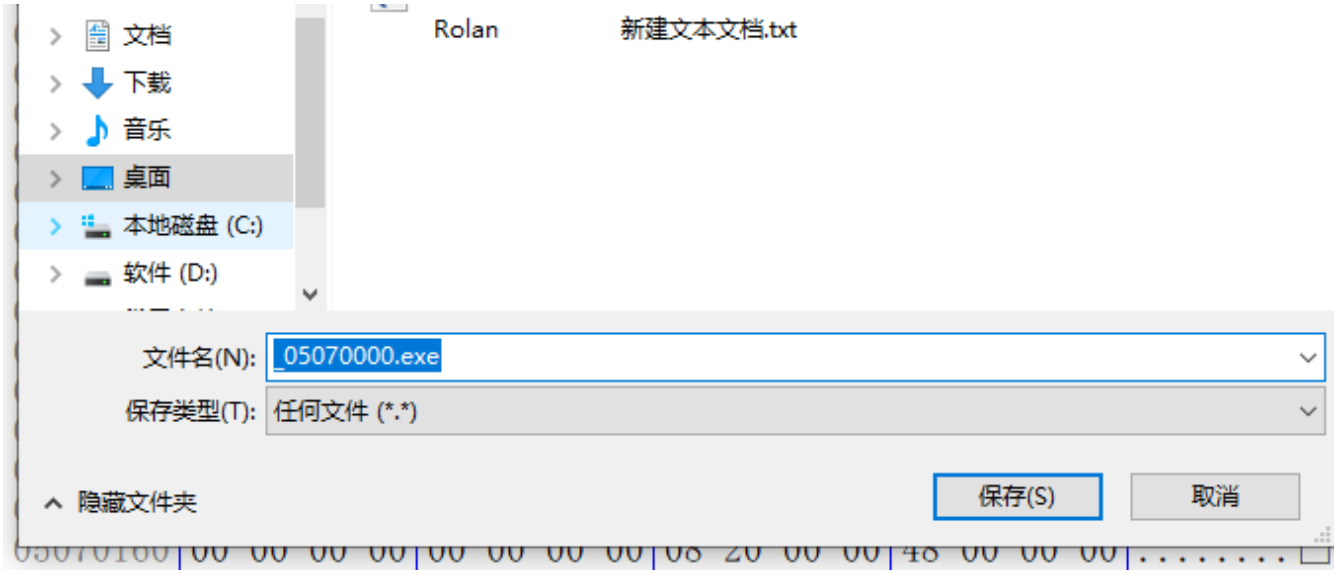
搜索到关键字符串之后向上滚动，查找PE文件，如果找到了说明这里就是目标文件解压缩的地方。

```
吾爱破解 - SampleCrackme Original.exe - [数据 - 05070000..0507EFFF]
文件(F) 查看(V) 调试(D) 插件(P) 选项(T) 窗口(W) 帮助(H) [+] 快捷菜单 Tools BreakPoint->
运行
05070000 4D 5A 90 00 03 00 00 00 04 00 00 00 FF FF 00 00 MZ?□...□...
05070010 B8 00 00 00 00 00 00 00 40 00 00 00 00 00 00 00 ?.......@.......
05070020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
05070030 00 00 00 00 00 00 00 00 00 00 00 00 80 00 00 00 ............€...
05070040 0E 1F BA 0E 00 B4 09 CD 21 B8 01 4C CD 21 54 68 □?.???L?Th
05070050 69 73 20 70 72 6F 67 72 61 6D 20 63 61 6E 6E 6F is program canno
05070060 74 20 62 65 20 72 75 6E 20 69 6E 20 44 4F 53 20 t be run in DOS
05070070 6D 6F 64 65 2E 0D 0D 0A 24 00 00 00 00 00 00 00 mode....$.......
05070080 50 45 00 00 4C 01 03 00 83 1C D7 46 00 00 00 00 PE..L□□.?謁....
05070090 00 00 00 00 E0 00 0E 21 0B 01 08 00 00 A0 00 00 ....?□!□□□..?
050700A0 00 40 00 00 00 00 00 00 9E BD 00 00 00 20 00 00 .@......炯... ..
050700B0 00 C0 00 00 00 00 40 00 00 20 00 00 00 10 00 00 .?...@.. ...□..
050700C0 04 00 00 00 00 00 00 00 04 00 00 00 00 00 00 00 □.......□.......
050700D0 00 20 01 00 00 10 00 00 00 00 00 00 02 00 00 04 . □..□...... ..
050700E0 00 00 10 00 00 10 00 00 00 00 10 00 00 10 00 00 ..□..□....□..□
050700F0 00 00 00 00 10 00 00 00 00 00 00 00 00 00 00 00 ....□...........
05070100 4C BD 00 00 4F 00 00 00 00 C0 00 00 B8 29 00 00 L?.O....?.?..
05070110 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
05070120 00 00 01 00 0C 00 00 00 D0 BC 00 00 1C 00 00 00 ..□.....屑.....
05070130 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
05070140 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ................
```

经过搜索和寻找，我们在第六次搜索结果中找到了要找的PE文件。



接着右键->备份->保存数据到文件。

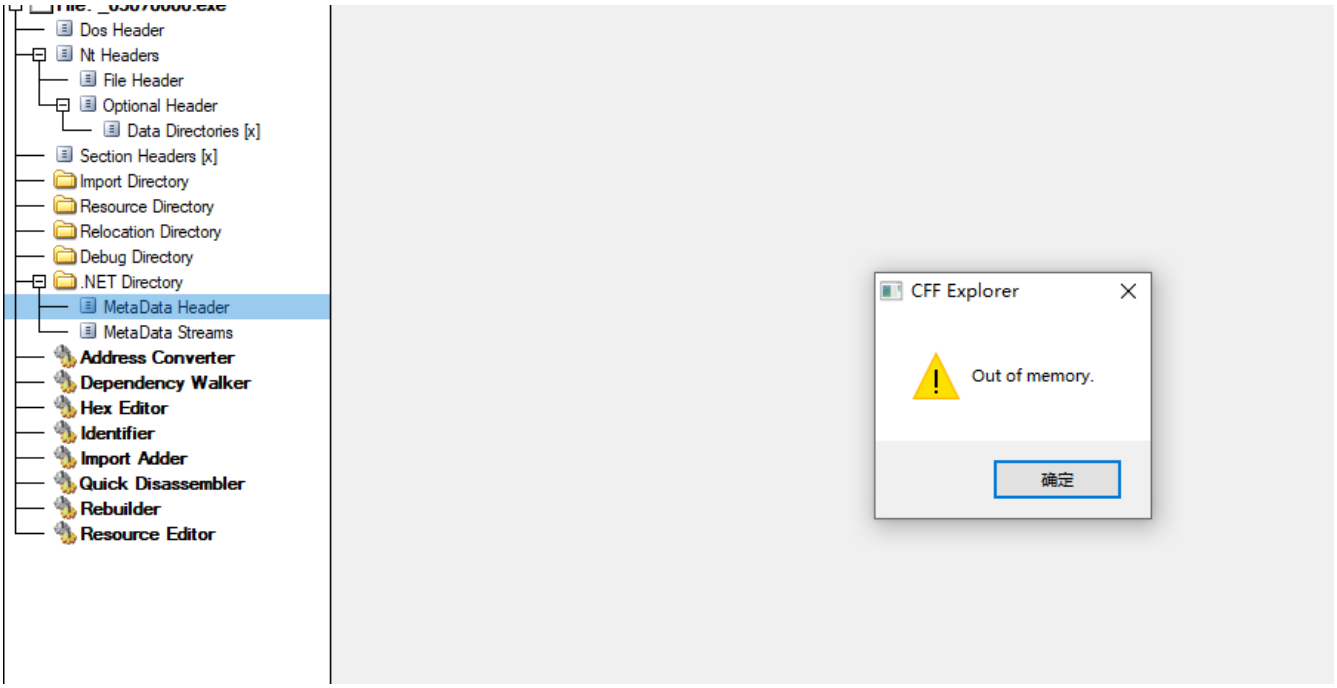


选择保存类型为任何文件，并修改后缀名为exe。

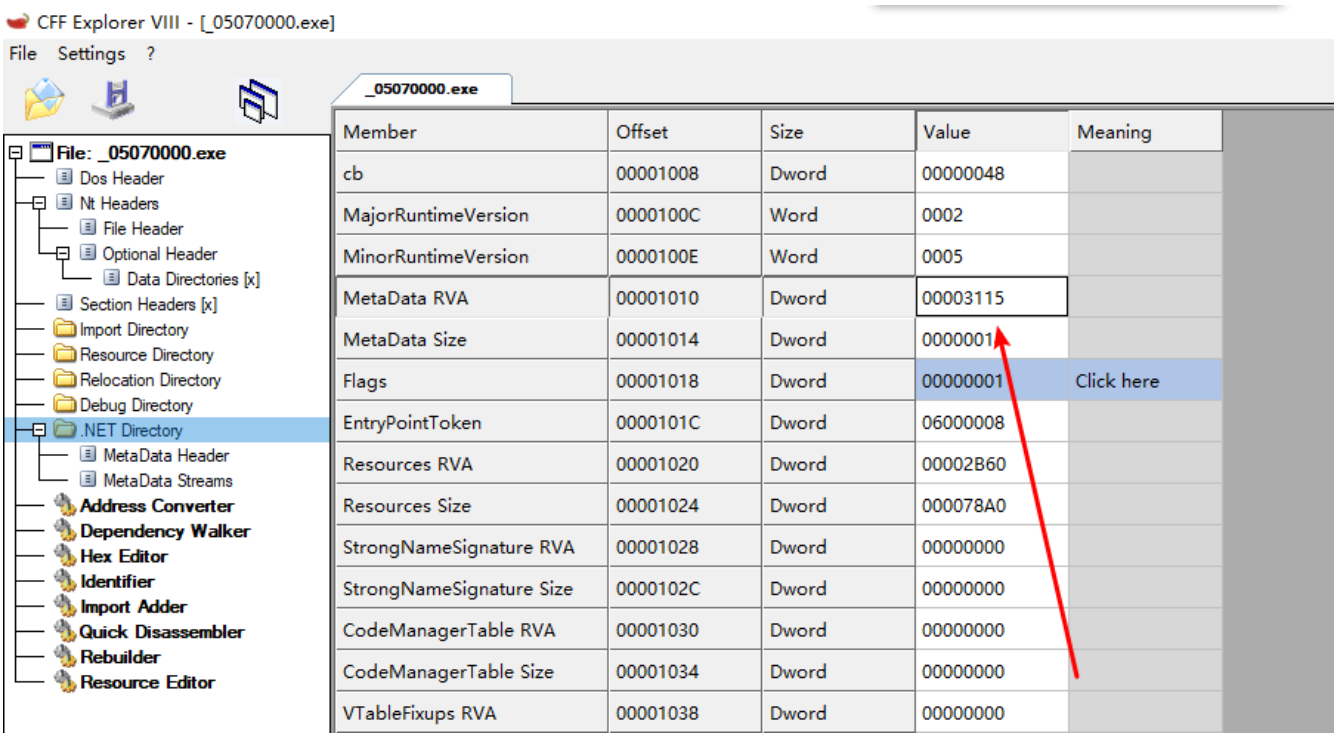
接着测试运行一下，弹出一个错误框，无法在电脑上运行。这很正常，因为直接dump下来的文件在PE头总是会出现问题。因为我是在本机上跑的，如果是W7的话应该是显示不是有效的W32程序。

修复目标程序

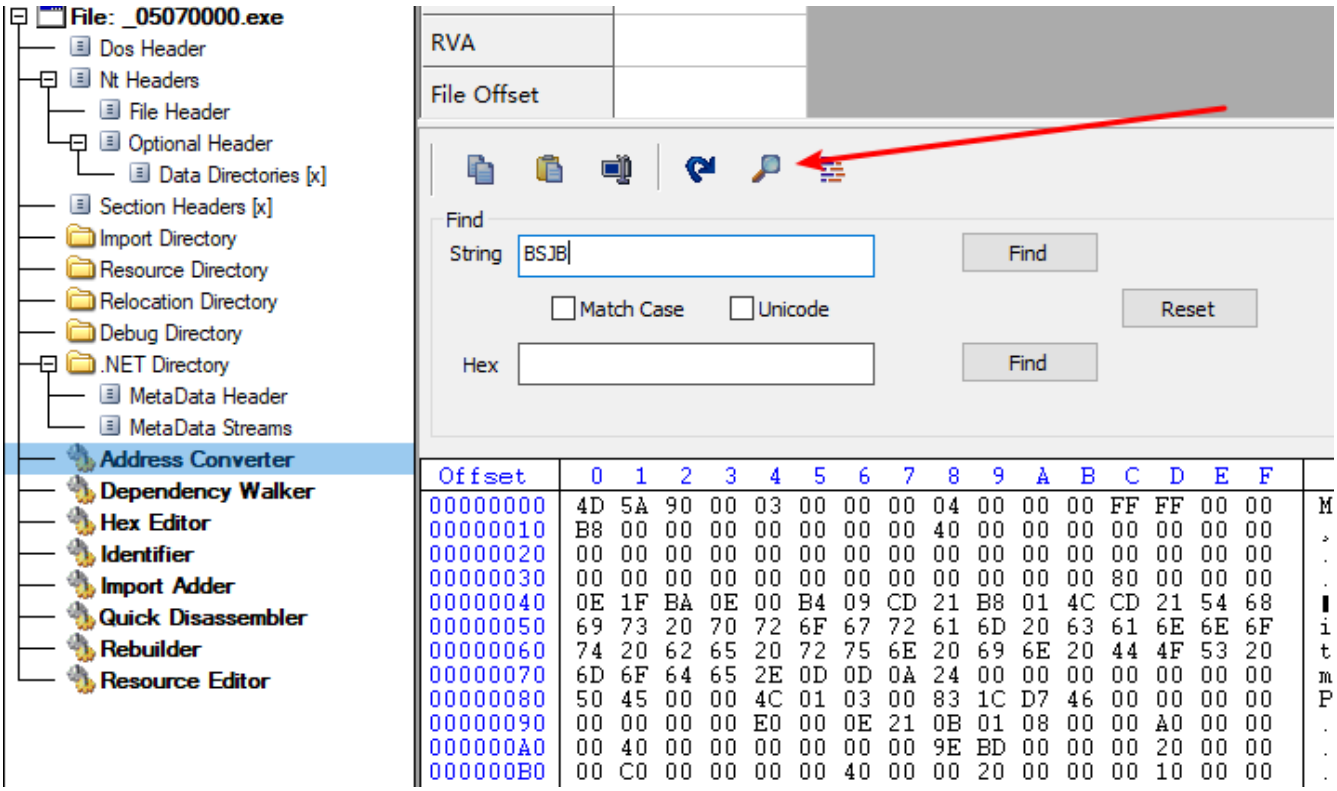
接下来用CFF Explorer这款PE工具来修复一下目标程序。



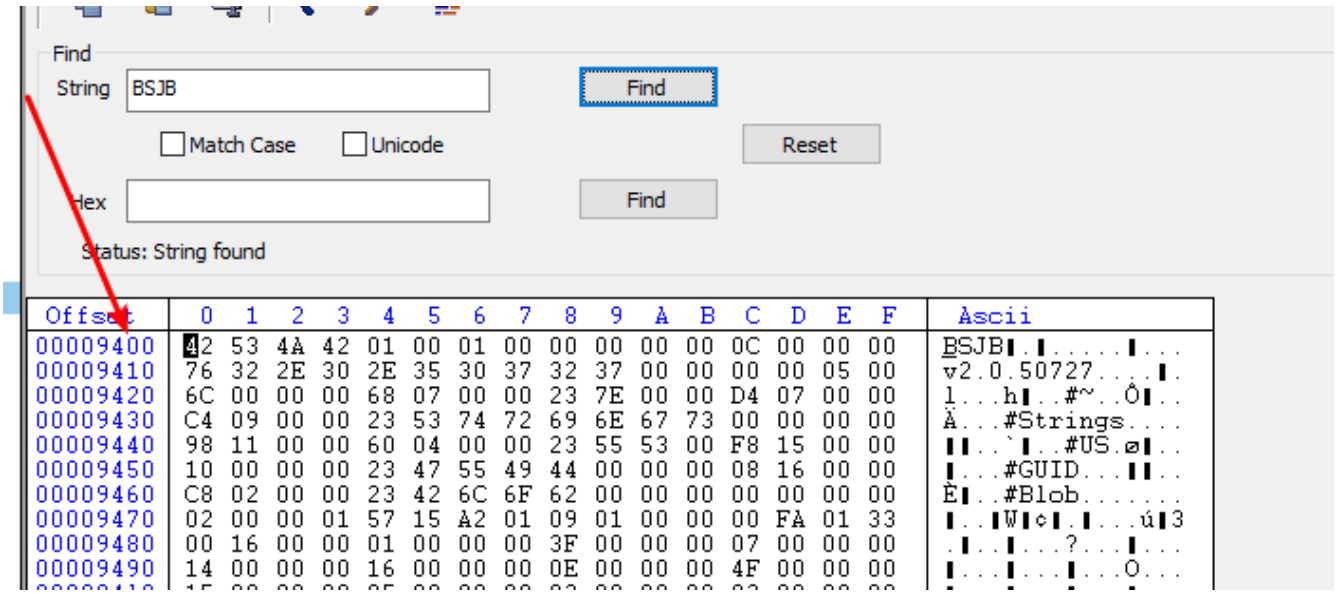
载入目标程序，点击Header部分，错误提示为Out of memory。



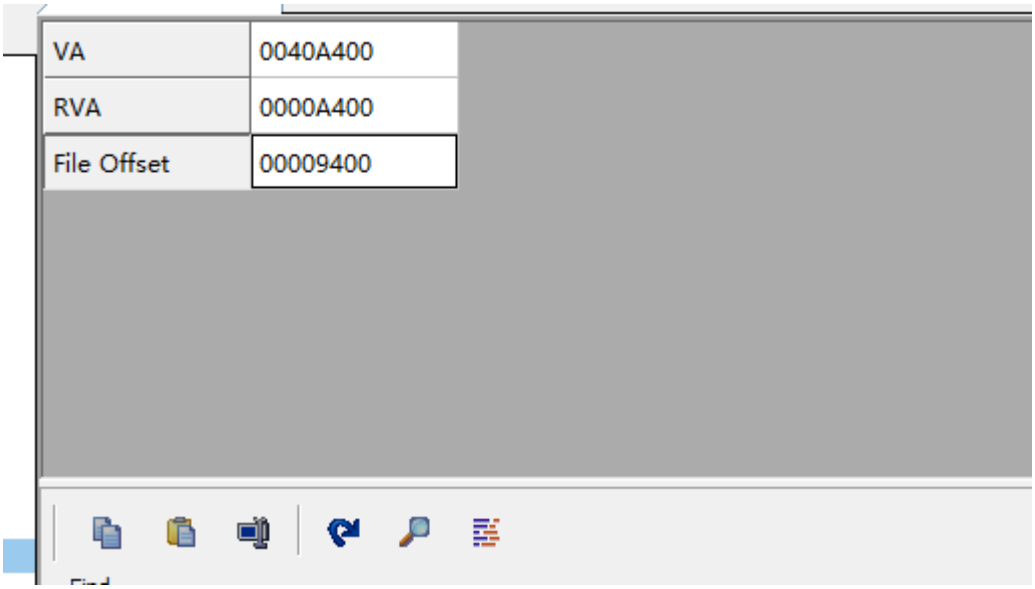
接下来进入到Driectory部分，修复MetaData Header的错误。我们需要修复这个错误的RVA和Size，Size明显是错的，太小了。



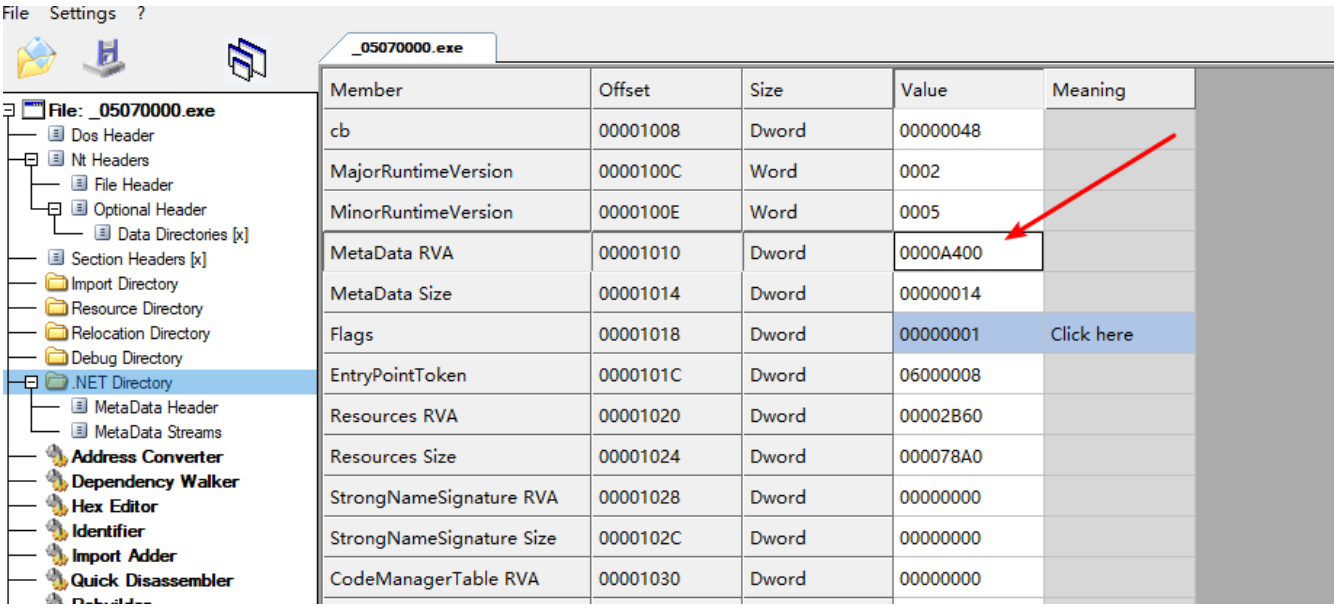
接着来到Address Converter部分，点击这个放大镜，查找字符串BSJB。至于为什么搜索这么一串字符串，作者给出的解释是这个字符串的Offset就是要修复的Meta Data的Offset。(我也是一脸蒙蔽 这解释有点太勉强了吧)



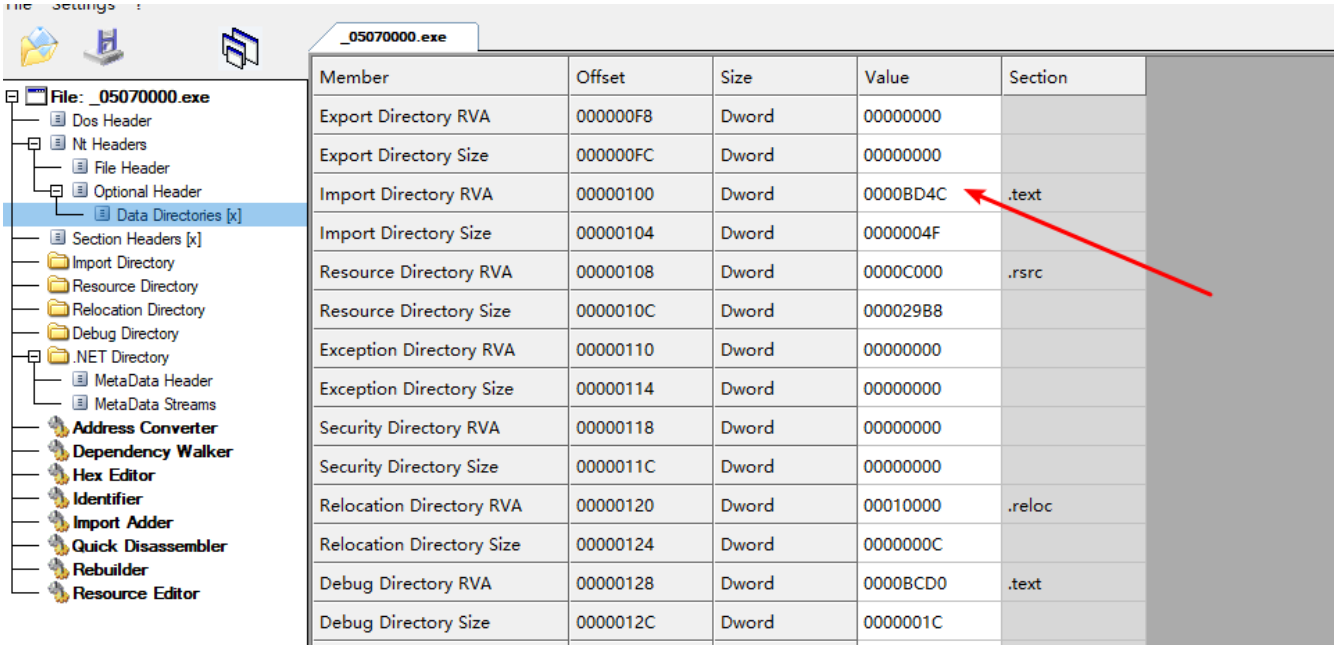
接着点击查找，找到了0x9400这个地址，那么Meta Data的Offset就是0x9400。



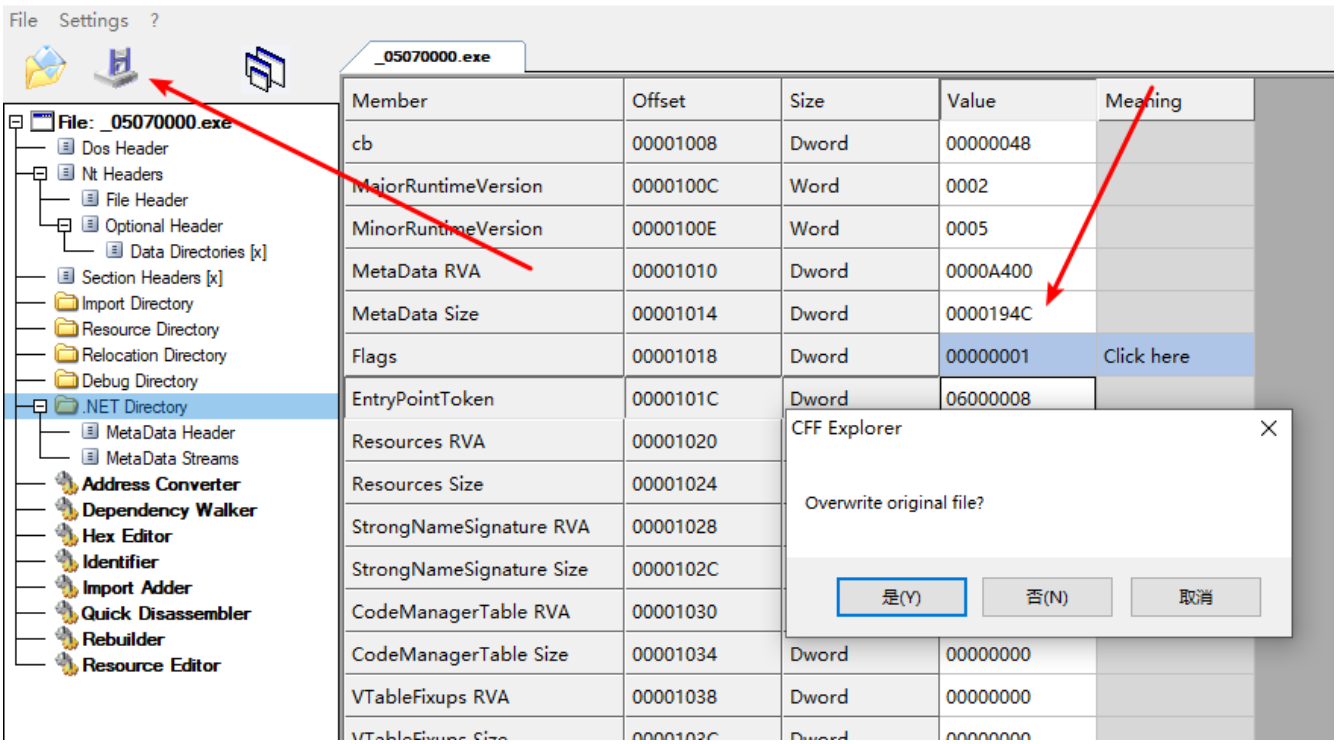
接着把9400输入到Offset中，会自动计算出我们要的RVA是0xA400。



回到Directoy部分，将正确的RVA填入。至于Size我们可以根据一个公式计算得出:MetaDataSize=Import Directory RVA-MetaDataRVA,Import Directory RVA的值如下图：



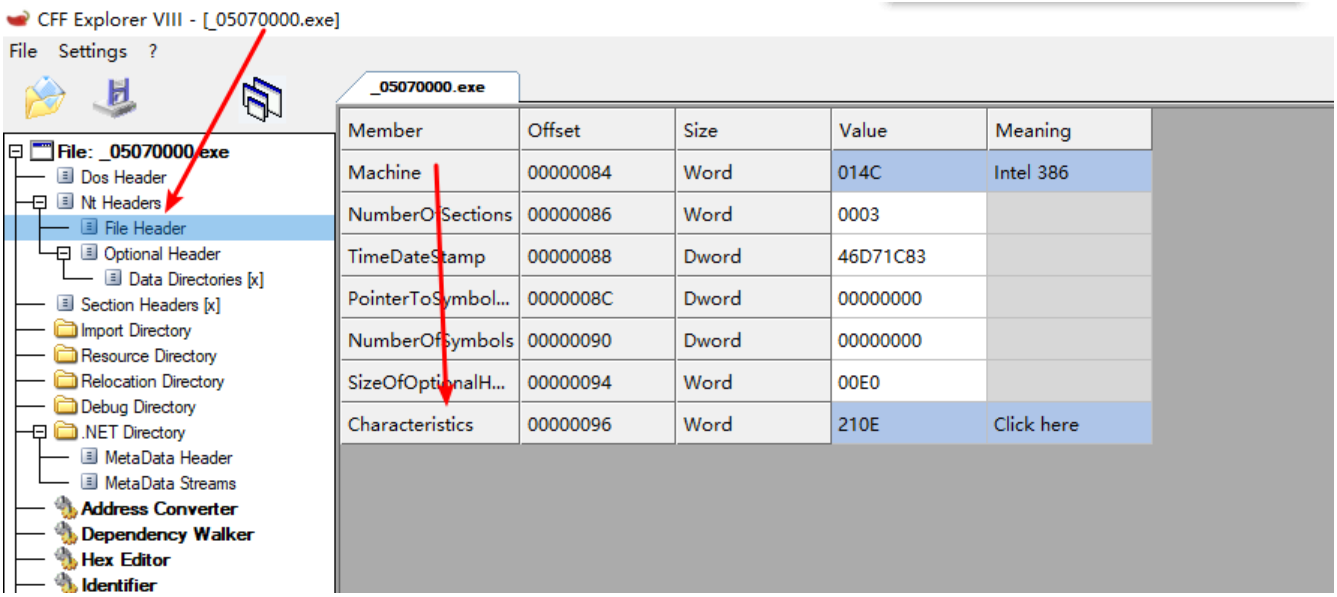
最后算出Size为0x194C。



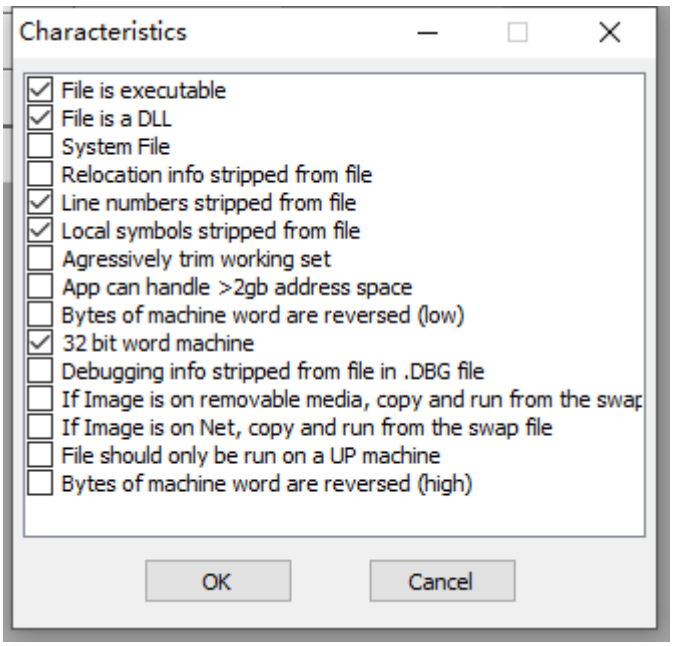
接着修改回正确的RVA，然后点击保存。

接着再次双击测试运行，还是无法运行。这里作者的原话是根据我之前的经验，我应该是忘记修改文件头属性了。

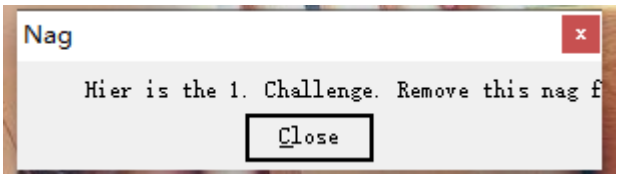
不得不感叹大神的经验就是强大。好吧 继续修复

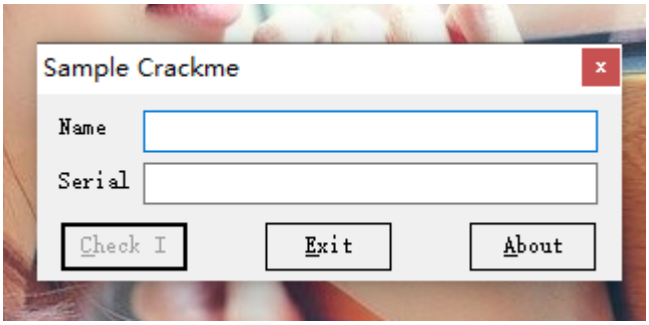


点击文件头 找到Characteristics，双击



属性显示这是一个DLL，难怪会报错。把勾去掉，再次保存。





OK 程序完美运行，这个壳也算是脱完了。

需要相关文件可以到我的Github下载:https://github.com/TonyChen56/Unpack-Practice