

Maquina del mal

1. pip install pyevmasm

Ejecutar

```
from pyevmasm import disassemble_hex
```

```
bytecode =
```

```
'0x61951d636063eb0c04613b83346063613f7260b4080203602c611af3026107a4526207d0b961ab52016107c75262026a8561952d18620881ba526107c7516107a4510214604857ff00'
```

```
print(disassemble_hex(bytecode))
```

1. consola

PUSH2 0x951d

PUSH4 0x6063eb0c

DIV

PUSH2 0x3b83

CALLVALUE

PUSH1 0x63

PUSH2 0x3f72

PUSH1 0xb4

ADDMOD

MUL

SUB

PUSH1 0x2c

PUSH2 0x1af3

MUL

PUSH2 0x7a4

MSTORE

PUSH3 0x7d0b9

PUSH2 0xab52

ADD

PUSH2 0x7c7

MSTORE

PUSH3 0x26a85

PUSH2 0x952d

XOR

PUSH3 0x881ba

MSTORE

PUSH2 0x7c7
MLOAD
PUSH2 0x7a4
MLOAD
MUL
EQ
PUSH1 0x48
JUMPI
SELFDESTRUCT
STOP

1. Analisis

PUSH2 0x951d # = 38173 [0x951d]
PUSH4 0x6063eb0c # = 1679497972 [0x951d, 0x6063eb0c]
DIV # $1617597196 / 38173 = 42364 = 0xa57c$ [0xa57c]
PUSH2 0x3b83 # = 15235 [0xa57c, 0x3b83]
CALLVALUE # Valor a encontrar [0xa57c, 0x3b83, CALLVALUE]
PUSH1 0x63 # = 99 [0xa57c, 0x3b83, CALLVALUE, 0x63]
PUSH2 0x3f72 # = 16242 [0xa57c, 0x3b83, CALLVALUE, 0x63, 0x3f72]
PUSH1 0xb4 # = 180 [0xa57c, 0x3b83, CALLVALUE, 0x63, 0x3f72, 0xb4]
ADDMOD # $(0xb4 + 0x3f72) \bmod 0x63 = (180 + 16242) \bmod 99 = 16422 \bmod 99 = 87 = 0x57$
[0xa57c, 0x3b83, CALLVALUE, 0x57]
MUL # $99 * 87 = 8613$ [0xa57c, 0x3b83, CALLVALUE*0x57]
SUB # $x - 8613$ [0xa57c, CALLVALUE*0x57 - 0x3b83]
PUSH1 0x2c # = 44 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x2c]
PUSH2 0x1af3 # = 6899 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x2c, 0x1af3]
MUL # $44 * 6899 = 0x4a1c4 = 303556$ [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x4a1c4]
PUSH2 0x7a4 = 1956 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x4a1c4, 0x7a4]
MSTORE # memory[0x7a4] = 0x4a1c4 = 303556 [0xa57c, CALLVALUE*0x57 - 0x3b83]
PUSH3 0x7d0b9 # = 512185 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x7d0b9]
PUSH2 0xab52 # = 43858 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x7d0b9, 0xab52]
ADD # $512185 + 43858 = 556043$ [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x87c0b]
PUSH2 0x7c7 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x87c0b, 0x7c7]
MSTORE # mem[0x7c7] = 556043 [0xa57c, CALLVALUE*0x57 - 0x3b83]
PUSH3 0x26a85 # = 158341 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x26a85]
PUSH2 0x952d # = 38189 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x26a85, 0x952d]
XOR # = 120712 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x2ffa8]

PUSH3 0x881ba [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x2ffa8, 0x881ba]
MSTORE # = 557370 # mem[0x881ba] = 120712 [0xa57c, CALLVALUE*0x57 - 0x3b83]
PUSH2 0x7c7 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x7a4]
MLOAD # = 556043 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x87c0b]
PUSH2 0x7a4 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x87c0b, 0x7a4]
MLOAD # = 303556 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x87c0b, 0x4a1c4]
MUL # = 556043 * 303556 [0xa57c, CALLVALUE*0x57 - 0x3b83, 0x274cade36c]
EQ [0xa57c, CALLVALUE*0x57 - 0x3b83 == 0x274cade36c]
PUSH1 0x48 [0xa57c, CALLVALUE*0x57 - 0x3b83 == 0x274cade36c, 0x42]
JUMPI
SELFDESTRUCT
STOP

1. Operaciones

$\text{CALLVALUE} * 0x57 - 0x3b83 == 0x274cade36c$
 $\text{CALLVALUE} = (0x274cade36c + 0x3b83) / 0x57$
 $\text{CALLVALUE} = 0x73a3d729 = 1940117289$
 $0x73a3d729 = 1940117289$

Respuesta Flag UVT{0x73a3d729}