r2wars

battle bots in shared memory

hanemile @ $EVENT

https://emile.space/events/2024/10-mrmcd-darmstadt/r2wars-mrmcd-2024.pdf

https://github.com/hanemile/r2wars

radare2 ?*~…

ESIL ?

r2wars ?

TL;DR

```
; r2 malloc://1024                          # allocate 1KB of memory
[0x00000000]> e asm.arch = x86              # define the arch to use
[0x00000000]> e asm.bits = 32               # define the bits to use
[0x00000000]> aei                           # init vm
[0x00000000]> aeim                          # init staack
[0x00000000]> waf bot.asm                   # write bot to memory
[0x00000000]> aer PC = 0x100                # set program counter
[0x00000000]> aer SP = SP + 0x100           # set stack pointer
[0x00000000]> e cmd.esil.todo=f theend=1    # define end condition
[0x00000000]> e cmd.esil.trap=f theend=1    # define end condition
[0x00000000]> e cmd.esil.intr=f theend=1    # define end condition
[0x00000000]> e cmd.esil.ioer=f theend=1    # define end condition
[0x00000000]> f theend=0                    # set the end flag to 0
[0x00000000]> aes                           # step
[0x00000000]> ?v 1+theend                   # check if the end cond. is met
..                                          # in a loop
[0x00000000]> aes                           # step
[0x00000000]> ?v 1+theend                   # check if the end cond. is met
```

```
; git clone https://github.com/HanEmile/r2wars.git

; cd r2wars

; CGO_ENABLED=0 go run ./… -t 1s -v \
  ./bots/warrio0.asm ./bots/warrio1.asm
```

Now: Play around and Hack the planet!

https://emile.space/blog/2020/r2wars

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