

# Closing

This is (not) the end.

```
stp x24, x23, [sp, 0x20]
stp x22, x21, [sp, 0x30]
stp x20, x19, [sp, 0x40]
stp x29, x30, [sp, 0x50]
add x29, sp, 0x50
sub sp, sp, 0x20, lsl 12
sub sp, sp, 0x20
mov x20, x1
mov x27, x0
add x9, sp, 0x10
nop
ldr x8, 0x100008008
ldr x8, [x8]
str x8, [x9]
add w8, w27, 1
adrp x9, 0x100008000
str wzr, [x9, 0x130]
adrp x24, 0x100008000
str wzr, [x24, 0x134]
sbfiz x21, x8, 3, 0x20
mov x0, x21
bl 0x1000077b4
adrp x23, 0x100008000
str x0, [x23, 0x130]
mov x0, x21
bl 0x1000077b4
adrp x8, 0x100008000
str x0, [x8, 0x140]
cmp w27, 1
b.lt 0x100005954
ldr x21, [x20, 0]
cbz x21, 0x100005d34
adrp x19, 0x100008000
adrp x26, 0x100008000
adr x25, 0x100007ab4
nop
orr w22, wzr, 1
orr w28, wzr, 1
ldrb w8, [x21]
cmp w8, 0x2d
b.ne 0x100005964
ldrsb w8, [x21, 1]
sub w9, w8, 0x63
cmp w9, 0x13
b.hi 0x100005c18
adr x8, 0x100005d94
nop
mov x10, x8
ldrsw x8, [x10, x9, lsl 2]
add x8, x8, x10
br x8
```

```
orr w1, wzr, 0x20000
mov x2, x21
bl 0x100007748
cbnz x0, 0x100005a1c
mov x0, x21
bl 0x100007730
add x20, x20, 1
ldrsw x8, [x24, 0x134]
cmp x20, x8
b.lt 0x1000059dc
adrp x28, 0x100008000
ldr x8, [x28, 0x12c]
adrp x21, 0x100008000
cbz x8, 0x100005aa0
ldr w9, [x21, 0x130]
cmp w9, 1
b.lt 0x100005aa0
ldr x0, [x8]
bl 0x100006400
ldr w8, [x21, 0x130]
cmp w8, 2
b.lt 0x100005aa0
orr w20, wzr, 1
ldr x8, [x28, 0x140]
ldr x0, [x8, x20, lsl 3]
bl 0x100006400
add x20, x20, 1
ldrsw x8, [x21, 0x130]
cmp x20, x8
b.lt 0x100005a84
ldr x8, 0x100008000
ldrb w8, [x8, 0x148]
tzb w8, 0, 0x100005ac8
movz w28, 0
mov x20, x27
mov x27, x26
adrp x26, 0x100008000
cmp w22, w27
b.lt 0x100005ca0
b 0x100005d44
mov x20, x27
mov x27, x26
add x26, sp, 0x18
adrp x28, 0x100008000
ldrb w8, [x28, 0x14c]
tbz w8, 0, 0x100005b2c
ldr x8, [x19, 0x150]
str x8, [sp]
adr x0, 0x100007c29
nop
bl 0x1000077d8
```

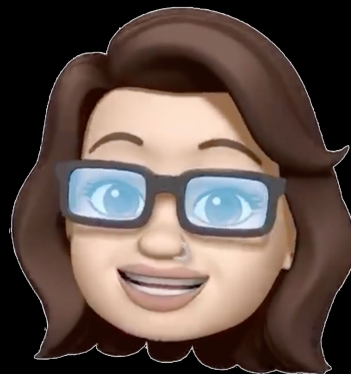
```
u100005b2c
nop
ldr x8, 0x100008158
str x8, [x19, 0x150]
nop
ldr w8, 0x100008160
mov x21, x0
cmp w21, 1
b.ge 0x100005b08
ldrb w8, [x28, 0x14c]
tbz w8, 0, 0x100005ae0
nop
ldr x8, 0x100008018
ldr x2, [x8]
add x0, sp, 0x18
orr w1, wzr, 0x20000
bl 0x100007748
cbz x0, 0x100005c04
add x0, sp, 0x18
bl 0x100007838
add x8, x26, x0
sturb wzr, [x8, -1]
ldrb w8, [sp, 0x18]
cmp w8, 0x21
b.eq 0x100005bd4
add x0, sp, 0x18
orr w1, wzr, 0x40
b.lt 0x100007820
mov x21, x0
ldr x8, [x19, 0x150]
adrp x9, 0x100008000
str x8, [x9, 0x158]
nop
ldr w8, 0x100008128
nop
str w8, [x9, 0x160]
cbz x21, 0x100005bd4
strb wzr, [x21], 1
movz w1, 0x3a
mov x0, x21
bl 0x100007820
cbz x0, 0x100005bc0
strb wzr, [x0]
ldrb w8, [x0, 1]
cbz w8, 0x100005bc0
bl 0x100005de4
adrp x8, 0x100008000
str w0, [x8, 0x128]
ldrb w8, [x21]
cbz w8, 0x100005bd4
mov x0, x21
bl 0x100005de4
```

```
ldrb w8, [x0]
cmp w8, 0x20
ccmp w8, 9, 4, ne
b.eq 0x100005bdc
bl 0x100006400
mov x21, x0
cmp w21, 1
b.ge 0x100005b08
ldrb w8, [x28, 0x14c]
movz w21, 0
add x26, 0x100008000
ldr w0, [x26, 0x12c]
bl 0x100007724
b 0x100005c04
cbnz w8, 0x100005c04
add x1, sp, 0x18
orr w2, wzr, 0x20000
movz w0, 0
bl 0x1000077fc
mov x21, x0
cmp w21, 1
b.lt 0x100005d24
add x0, sp, 0x18
mov x1, x21
bl 0x1000062b8
ldr x8, [x19, 0x150]
add x8, x8, w21, sxtw
str x8, [x19, 0x150]
add x1, sp, 0x18
orr w2, wzr, 0x20000
movz w0, 0
bl 0x1000077fc
mov x21, x0
cmp w21, 0
b.gt 0x100005c38
b 0x100005d24
nop
ldr x8, 0x100008010
ldr w0, [x8]
str x21, [sp]
adr x1, 0x100007aa2
nop
bl 0x100007760
movz w21, 0
cmn w21, 1
cset w28, eq
cmp w22, w27
b.ge 0x100005d44
add w22, w22, 1
ldr x21, [x20, w22, sxtw]
cbnz x21, 0x100005904
```

```
add x22, x8, 1
ldr x8, [x20, x22, lsl 3]
ldr x9, [x23, 0x138]
ldrsw x10, [x24, 0x134]
add w11, w10, 1
str w11, [x21, 0x134]
str x8, [x9, x10, lsl 3]
cmp w22, w27
b.lt 0x100005ca0
b 0x100005d44
orr w8, wzr, 1
adrp x9, 0x100008000
strb w8, [x9, 0x148]
cmp w22, w27
b.lt 0x100005ca0
b 0x100005d44
adr x0, 0x1000079f0
nop
bl 0x1000077f0
movz w28, 0
cmp w22, w27
b.lt 0x100005ca0
b 0x100005d44
adr x0, 0x100007a4f
nop
bl 0x1000077f0
movz w28, 0
ldr x0, [x23, 0x138]
bl 0x100007778
add x8, sp, 0x10
ldr x8, [x8]
nop
ldr x9, 0x100008008
ldr x9, [x9]
cmp x9, x8
b.ne 0x100005d90
mov x0, x28
add sp, sp, 0x20, lsl 12
add sp, sp, 0x20
ldp x29, x30, [sp, 0x50]
ldp x20, x19, [sp, 0x40]
ldp x22, x21, [sp, 0x30]
ldp x24, x23, [sp, 0x20]
ldp x26, x25, [sp, 0x10]
```

# Thanks for watching

The conference is now over..  
....but the party is not!



- Announce the winners
- Chiptune party!
- Keep coding and reversing!
- How did we prepare #r2con2020
  - [github.com/radareorg/r2con2020/blob/master/README.md](https://github.com/radareorg/r2con2020/blob/master/README.md)

# We will leave the videos on YouTube until next Sunday 13th of September

Do you want us to leave the videos as it is in youtube for the next week until Sunday 13th? (we will need some time to edit and make them public)

Anonymous Poll

94% Yes



6% Not needed



18 votes

19:59 ✓✓

# After Sunday 13th ...

- We will edit the whole 4 days of stream, this will take a while
- There is no ETA for the videos to be published on YouTube
  - We will do it **ASAP**

# r2wars Winners!

## Winners

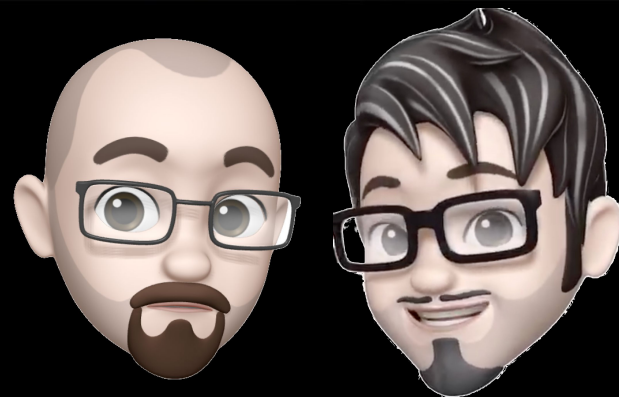
- **Flacucho** by @goyo2600 arm32
- **Anisse** by @Aissn arm32
- **Flagbrot** by @cyan\_pencil arm64

- **Niku** by Kurt (x86-64)

## Score Board

Combat 105 / 105

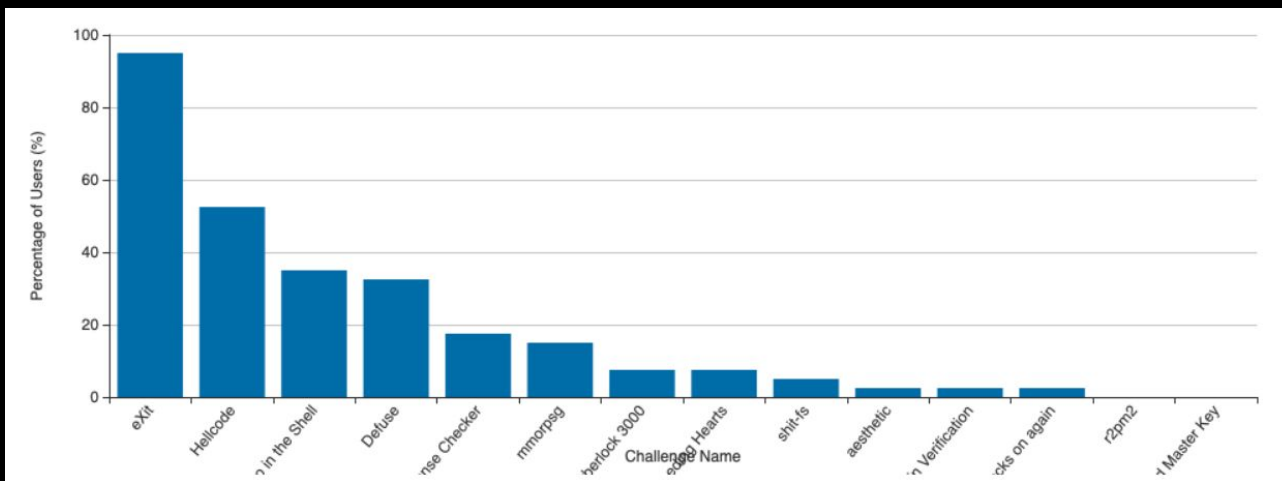
```
1 flacucho.arm-32 11,00 (11-0-3 with 23 overall).
2 anisse.arm-32 11,00 (11-0-3 with 22 overall).
2 flagbrot.arm-64 11,00 (11-0-3 with 22 overall).
4 icyphox.x86-32 9,00 (9-0-5 with 19 overall).
5 FATbanana.x86-32 8,00 (8-0-6 with 17 overall).
6 alkalinear.arm-64 7,00 (7-0-7 with 18 overall).
6 soo.x86-32 7,00 (7-0-7 with 18 overall).
8 kaploombaa.x86-32 7,00 (7-0-7 with 16 overall).
8 zutle.x86-32 7,00 (7-0-7 with 16 overall).
10 hayirlisiolsun.x86-32 7,00 (7-0-7 with 15 overall).
11 niku.x86-64 6,00 (6-0-8 with 15 overall).
11 ThreeHeadedMonkey.x86-32 6,00 (6-0-8 with 15 overall).
13 hexrays.x86-32 4,00 (4-0-10 with 8 overall).
14 karliss.x86-64 3,00 (3-0-11 with 11 overall).
15 gordasco.x86-32 1,00 (1-0-13 with 4 overall).
```



# CTF



- 290 Registered Users ( Thank you! )
- eXit the challenge most solved.
- Only two challenges not solved!



# CTF Winners!



Place	Team	Score
1	punk5n0td34d	1068
2	WreckTheLine	930
3	barc0	668

We've sent you a mail, remember to **send your** write up to claim **your** prize!

# Capture The Flag



**Thanks** to all of you to make the **CTF** possible!

- **Mario Vilas** @Mario\_Vilas
- **Tony Torralba** @\_atorralba
- **Eloi Sanfelix** @esanfelix
- **Gautam** @Darvincisec
- **Grant Douglas** @hexploitable
- **Roberto Gutiérrez** @robguti
- **Eduardo Novella** @enovella\_
- **Alex Soler** @as0ler



Hope you enjoyed it a lot!



# Chiptune!

[0x00000000] > pqz



**RZCON**  
~2~0~2~0

CHIPTUNE PARTY

SATURDAY AUGUST 5TH 22:00GMT+2

[youtube.com/channel/UCZo6gyBPj6Vgg8u2dfIhY4Q](https://youtube.com/channel/UCZo6gyBPj6Vgg8u2dfIhY4Q)

**3D63**

[3D63.BANDCAMP.COM](https://3D63.BANDCAMP.COM)

**KLIRRE**

[KLIRRE.BANDCAMP.COM](https://KLIRRE.BANDCAMP.COM)

**ALEX WIKLUND**

[ALEXWIKLUND.BANDCAMP.COM](https://ALEXWIKLUND.BANDCAMP.COM)

**4DBOY**

[THE4DBOY.BANDCAMP.COM](https://THE4DBOY.BANDCAMP.COM)

**NEUROFLIP**

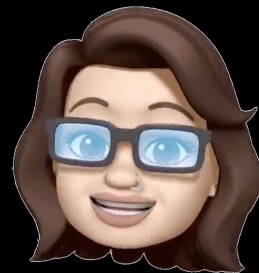
[NEUROFLIP.BANDCAMP.COM](https://NEUROFLIP.BANDCAMP.COM)

**RZCON** ~2~0~2~0

# Thanks to everyone!

This event would not be possible without you, so, huge kudos!

- Speakers [radare.org/con/2020/#Contributors](https://radare.org/con/2020/#Contributors)
- Organizers **Paula & Pancake**
- R2Wars **Skuater**
- CTF **Murphy**
- Workshops **Edu, Hexploitable, Murphy**
- Merchandising **camisetas frikis**
- Artists **Wiklund, Klirre, 4Dboy, 3D63, neuroflip**
- Community **all of you!**



Send us feedback about #r2con2020 please

[radare.org/con/2020/#Feedback](https://radare.org/con/2020/#Feedback)

**Thanks for watching!**

KLIRRE

KLIRRE.BANDCAMP.COM

ALEX WIKLUND

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4DBOY

THE4DBOY.BANDCAMP.COM

NEUROFLIP

NEUROFLIP.BANDCAMP.COM

3D63

3D63.BANDCAMP.COM

Stay in the **Youtube** channel  
we will open a **new stream!**  
**Get** some **food** and **drinks**  
The **party** will **start soon...**