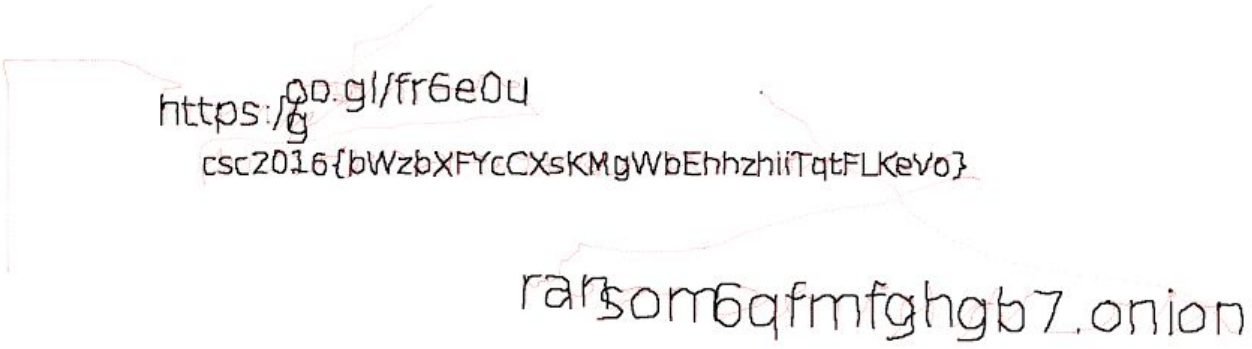
Task: Scribbler
Operation: H.W.C.
Team: adrianb

This was a similar task to Misc200 Riverside from Boston Key Party 2015 CTF (write-up at [1]). The solution is to extract the mouse data from the .pcap file and track the mouse movements somehow. The easiest way is to create an image and display the mouse position at each step. With a simple program we can achieve this:

```
import struct
from PIL import Image
import dpkt

INIT_X, INIT_Y = 2000, 1000

def print_map(pcap, device):
    picture = Image.new("RGB", (4200, 2020), "white")
    pixels = picture.load()

    x, y = INIT_X, INIT_Y

    for ts, buf in pcap:
        device_id, = struct.unpack("b", buf[0x0B])

        if device_id != device:
            continue

        data = struct.unpack("bbbbbb", buf[-6:])

        status = data[0]
        x = x + data[2]
        y = y + data[3]

        if (status == 1):
            pixels[x, y] = (255, 0, 0, 0)
            pass
        else:
            pixels[x, y] = (255, 0, 0, 0)
        if (data[1] == 1):
            for i in range(-2, 2):
                for j in range(-2, 2):
                    pixels[x + i , y + j] = (0, 0, 0, 0)
    picture.save("track.png", "PNG")

if __name__ == "__main__":
    f = open("scribbler_b0a037b8a6569915ce9e96d9b0134eeae40b2b9d.pcap", 'rb')
    pcap = dpkt.pcap.Reader(f)

    print_map(pcap, 5)
    f.close()
```

After we open the obtained file we can see the flag:



Flag: csc2016{bWzbXFYcCXsKMgWbEhhzhiiTqtFLKeVo}

[1] https://johnsupercool.github.io/posts/2015/mars/01/boston-key-party-2015-ctf-misc200-riverside/