# CAN we talk Python?

*Talking to your vehicle over the CAN bus with Python*

*@shnewto*

CAN?

# oscc-check.py

# can_we_talk.py

PEAK

Car Diagnostic Kit
sparkfun
Car Diagnostics Kit

panda

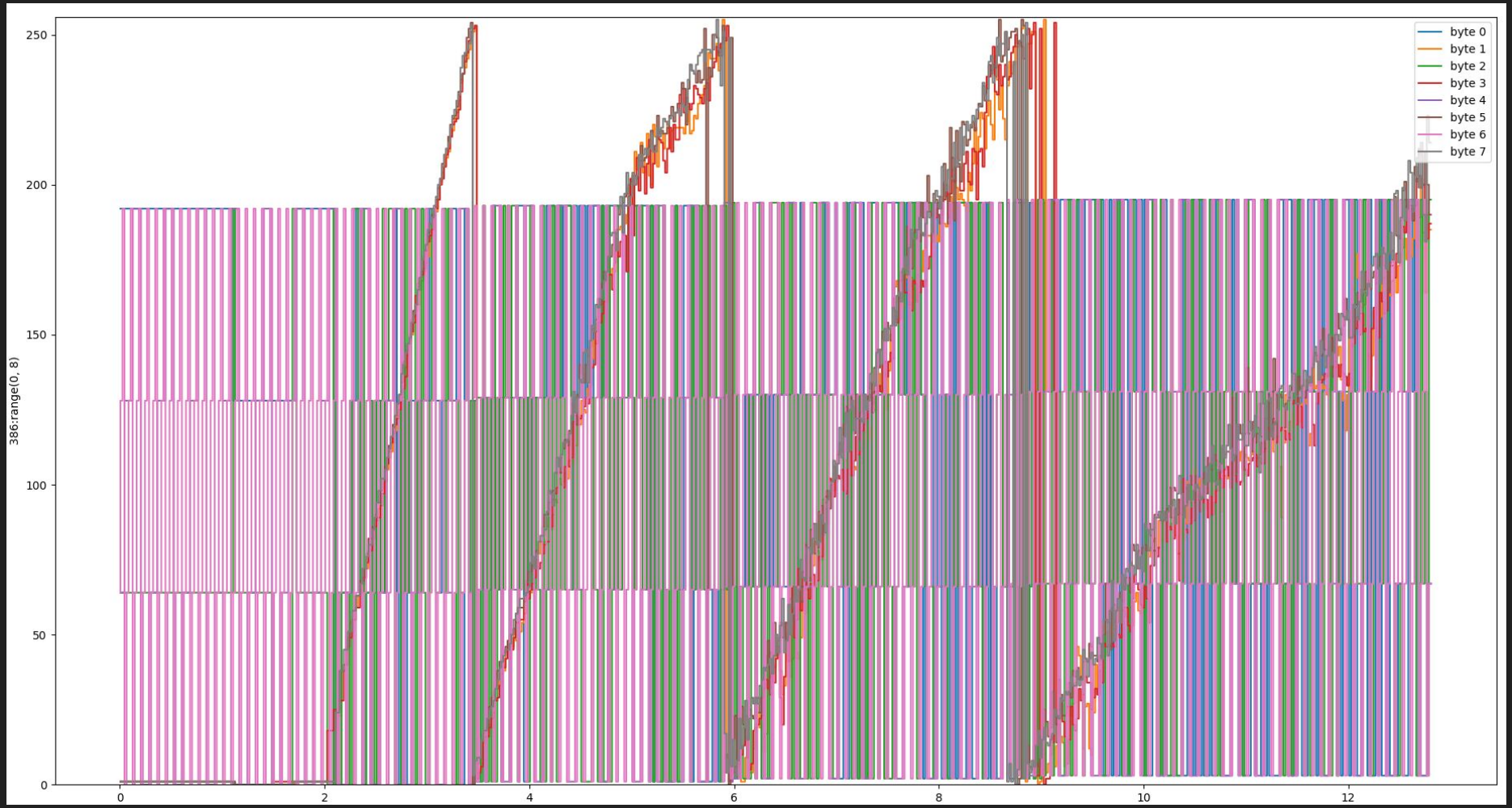
# The standard CAN frame (mostly)

ID: 0x02

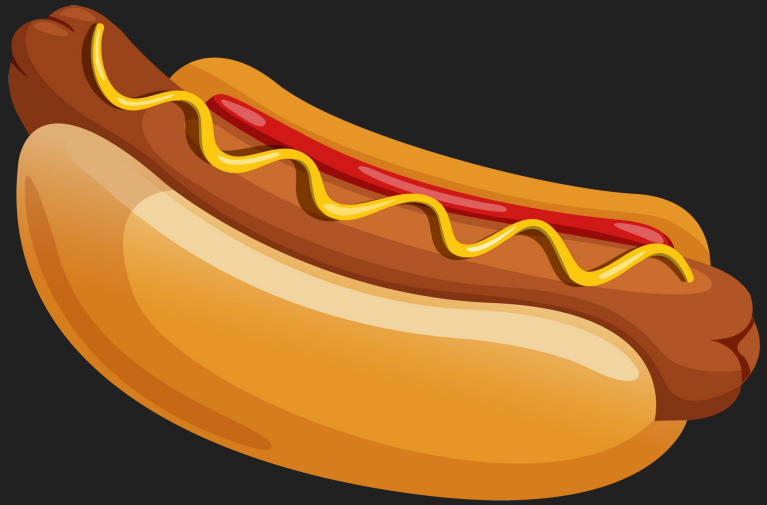
DLC: 8

Data: 8 bytes / 64 bits

```
[0] 0x02 0x04 0x06 0x08
[1] 0x0A 0x0C 0x0E 0x10
[2] 0x12 0x14 0x16 0x18
[3] 0x1A 0x1C 0x1E 0x20
[4] 0x22 0x24 0x26 0x28
[5] 0x2A 0x2C 0x2E 0x30
[6] 0x32 0x34 0x36 0x38
[7] 0x3A 0x3C 0x3E 0x40
```


byte 0
byte 1
byte 2
byte 3
byte 4
byte 5
byte 6
byte 7
386:range(0, 8)
0
50
100
150
200
250
0
2
4
6
8
10
12

```
byte1 = (data[offset + 1] & 0x0F) << 8
byte0 = data[offset]
value = byte1 | byte0
wheel_speed = value / 10.0
```



# The OBD-II Port

(My 2006 Hyundai Elantra)

A LOT of chatter!

# Other OBD-II Data

# oscc-check.py

github.com/PolySync/oscc-check

# can_we_talk.py

github.com/shnewto/can-we-talk

# The CAN bus and your car

Questions?

# Resources

sheas.blog/talks (slide deck)

Code:

- github.com/shnewto/can-we-talk OBD-II reader
- github.com/PolySync/oscc-check Vehicle actuation and status reports

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