
OX
CB
BARE
METAL

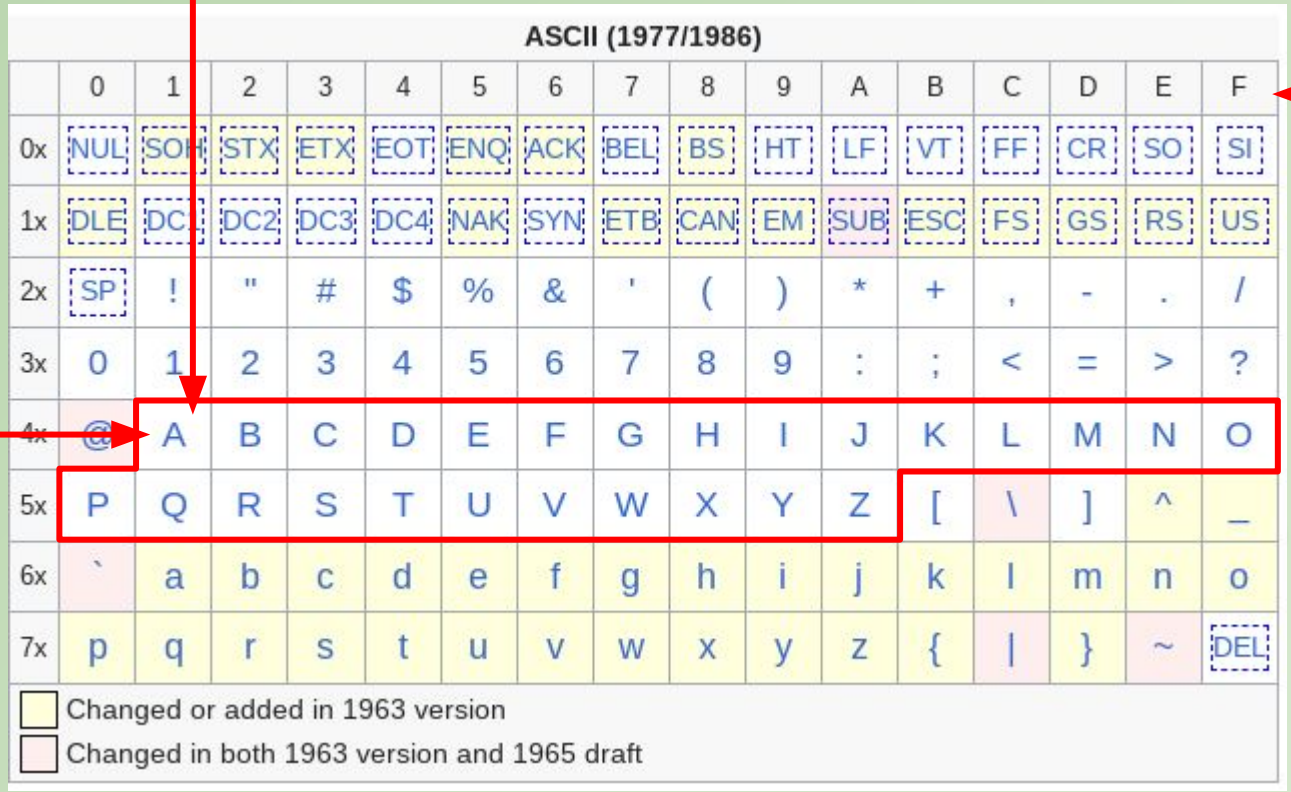
So far, we've lived in a world without much structure...

What? And why?

Reconsider...

A previous program

1	901
2	705
3	640
4	801
5	551
6	902
7	000
40	350
41	551
42	150
43	351
44	598
45	199
46	347
51	000
98	600



A = 10
B = 11
C = 12
D = 13
E = 14
F = 15

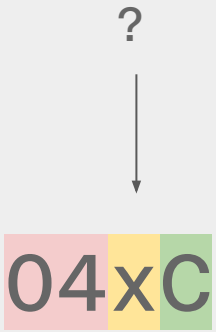
Write a program to translate the following...

This is your program's input:

```
04x8
04x5
04xC
04xC
04xF
01xF
04xC
05x0
04x3
02x1
00x0
00x0
```

We have to make choices.

How do we represent…



What do we need?

Some subroutines…

- Decide how to decode input
- Decide how to translate the input to integer form
- Decide how to store and retrieve later numbers/letters.

Multiply to 10

This…DOES IT!

01	901
02	330
03	526
04	130
05	326
06	527
07	100
08	327
09	225
10	703
11	615
15	526
16	902
17	000
25	009
26	000
27	000

Clock cycles

Complexity per instruction in our LPC ISA

1XX	3
2XX	3
3XX	1
4LR	1 PER SHIFT
5XX	2
6XX	2
7XX	2
8XX	2
901	1
902	2
000	0