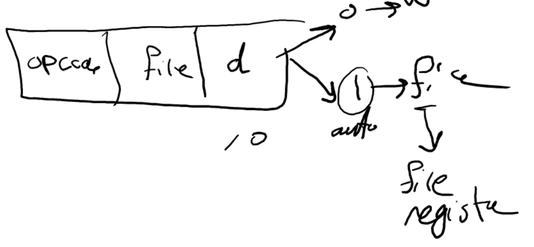
Bit oriented language

17 October 2021 18:32

{ Assembly language }

- Byte-oriented
- Bit-oriented
- Control Instructn

X EQU 0x0C

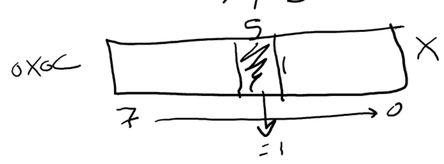


inst → Bit-

BCF → clears a bit

BCF X, 7

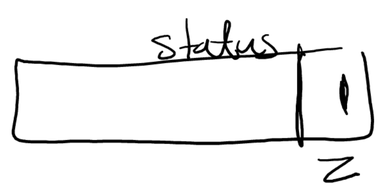
BSF X, 5



BTFSS
BTFSC

Bit test, skip if set
skip if clear

BTFSS, status, Z



BTFSS status, Z
GOTO "YES"
GOTO "NO"

→ label

Yes

XORLW ...

X EQU 0x0C
Y EQU 0x0D

X
125

① set X, Y → 0x0C, 0x0D
② Multiply X by 2 (using RLF)
③ if overflow → Y = 0xFF
No overflow → Y = 0x00 → clear "CLRF"

main
RLF X, 1
BTFSS status, C
GOTO NoFlow
GOTO Flow

NoFlow CLRF Y
GOTO Final

Flow MOVLW 0xFF
MOVWF Y

Final NOP

BCF
BSF
BTFSS = 1
BTFSC = 0
GOTO "label"
INCF X
DECFSZ = 0 → SKIP