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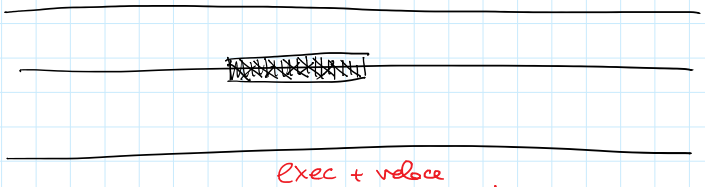
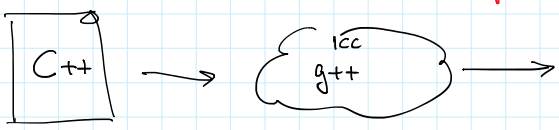


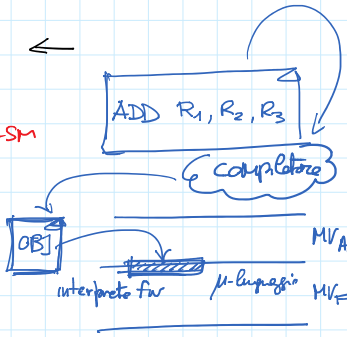
exec + veloce
+ complicato



tempo di compilazione
pagato 1 volta x tutte

istruzioni ASM

L_{ASM}



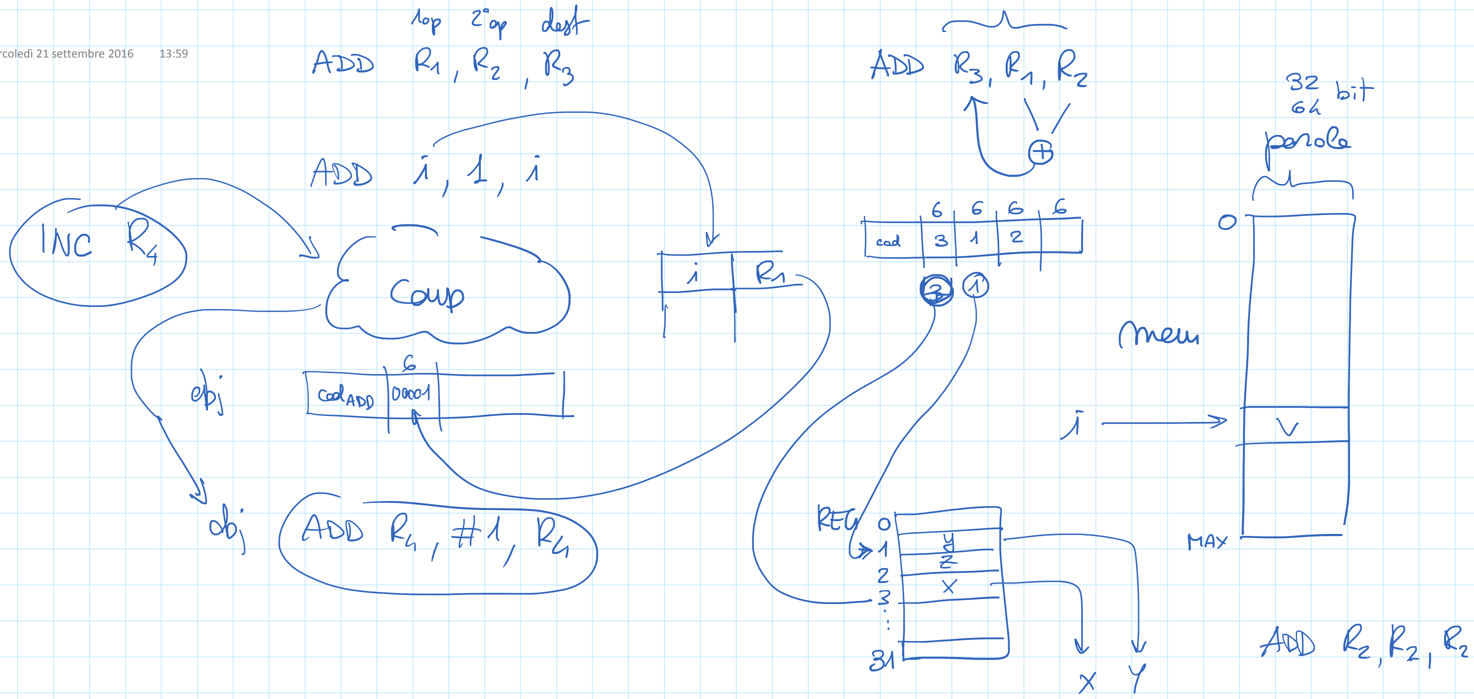
direttamente eseguito dal processore

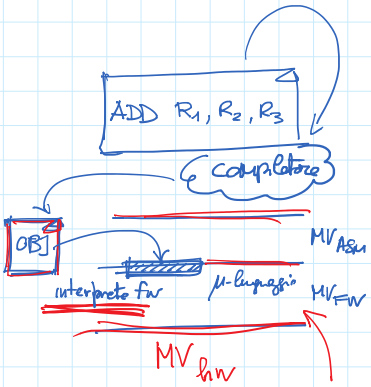
ciclo {
read linea
decodifica
esegue
}

exec + lento

tempo di interpretazione
ogni passo ∀ istruzione (C++)

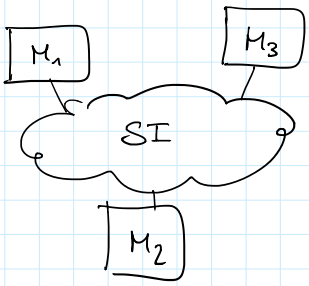
+ semplice


1op 2°op dest
ADD R1, R2, R3
ADD i, 1, i
INC R4
Comp
obj
cod ADD
00001
6
i
R1
obj
ADD R4, #1, R4
ADD R3, R1, R2
6 6 6 6
cod 3 1 2
REG
0
1
2
3
31
y
z
x
X Y
32 bit
64
parole
0
mem
i
V
MAX
ADD R2, R2, R2

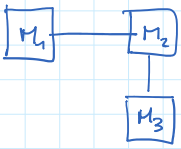


- { Moduli di elaborazione } { Risorse $_i$ } MV_i
- Struttura di interconnessione

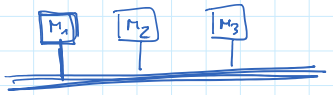
L_i



SI collegamenti dedicati

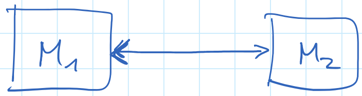


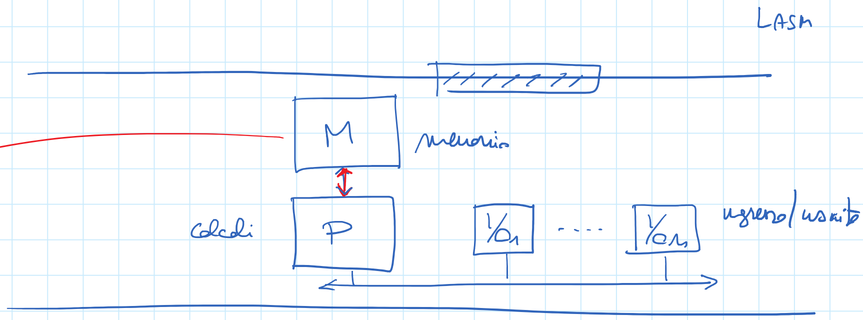
SI collegamenti ripartiti/condivisi



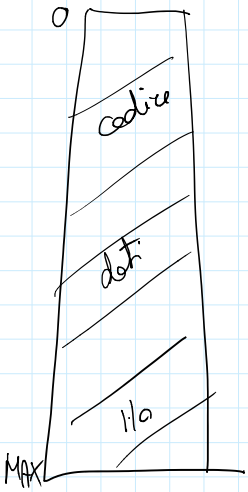
Modulo di elaborazione

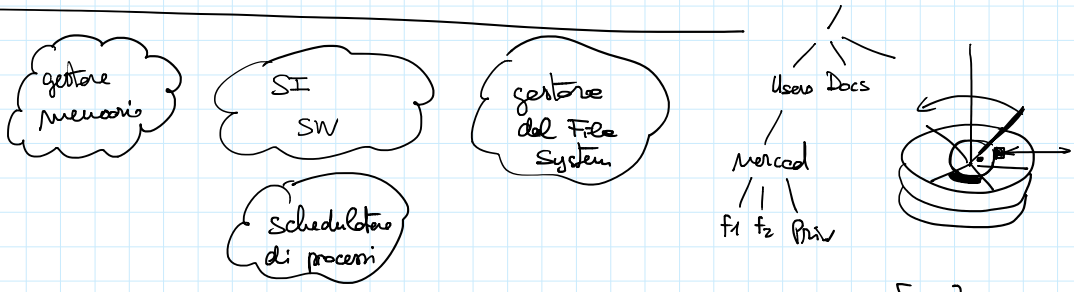
- autonomo
- sequenziale






```
Controllo M
{ repeat {
    leggi op dal processore
    switch (op) {
        case read : ____
        case write : ____
    }
} while(1) forever
```



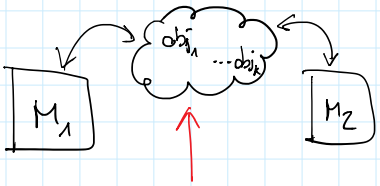


- faccia
- traccia
- settore

512 b · 4-8k

Modelli di cooperazione

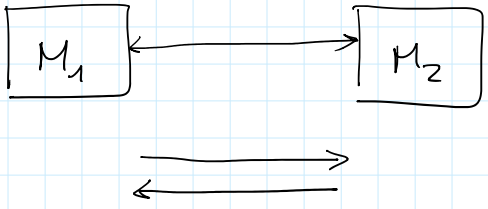
ambiente globale

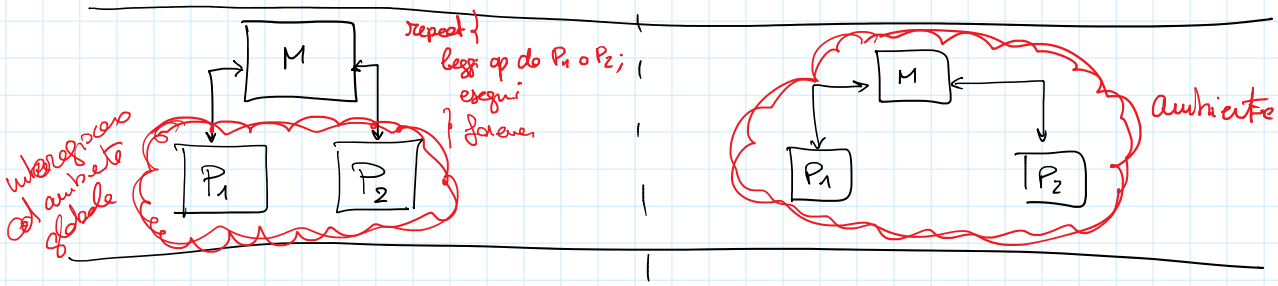


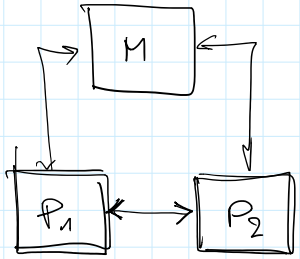
{ oggetti condivisi } fra i moduli

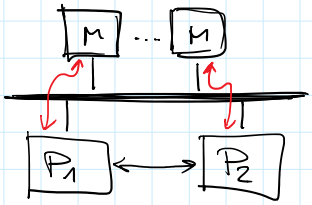
ambiente locale

non esiste alcun oggetto condiviso fra i moduli









Aritmetica Binaria (Base 2)

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$\{0, 1\}$

$1011_2 = 11_{10}$

$2^3\ 2^2\ 2^1\ 2^0$

$8\ 4\ 2\ 1$

11_{10}

123_{10}

$100\ \ 10\ \ 1$

$10^2\ 10^1\ 10^0$

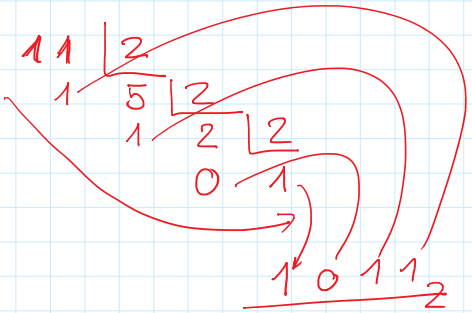
21_{10}

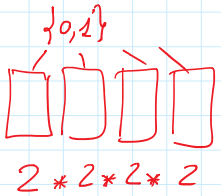
$\{0, 1, 2, 3 \dots 8, 9\}$

9 9 9 9 — 4 pos

$10 \times 10 \times 10 \times 10$

10^4





NUMERI

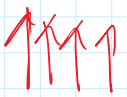
INTERI POSITIVI n cifre b=2 $0 \div (2^n)-1$

somma $3_{10} + 5_{10} = 8_{10}$ 4 bit n=4

8 4 2 1
1 1
0 0 1 1

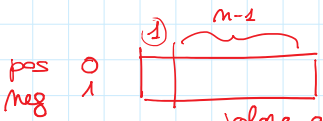
0 1 0 1 +

1 0 0 0



pos
0 0 1 1
0 1 0 1
1 0 0 0
- 0 0 0

INTERI POSITIVI e NEGATIVI



pos 0
neg 1

valore assoluto da rappresentare

Complemento a 2

128 64 32 16 8 4 2 1

$n_{10} \rightarrow xxx_2$

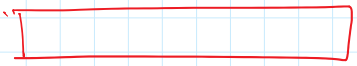
- n positivo → rappresentazione classica
- n negativo → 1) rappresentazione classica
  2) 0→1 1→0 (complemento a 1)
  3) +1

```
    1 1
  0 0 0 0 0 0 1 1      3  +
  1 1 1 1 1 0 1 1     -5
  ---------------
  1 1 1 1 1 1 1 0     -2
```

−2 1) 0000 0010
2) 1111 1101
3) 1111 1110

−5 1) 0000 0101
2) 1111 1010
3) 0000 0001
1111 1011

n: $-2^{(n-1)} \dots 2^{(n-1)} - 1$



10

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11

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12

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mercoledì 21 settembre 2016 13:59

19

mercoledì 21 settembre 2016 14:02

20

mercoledì 21 settembre 2016 14:02