

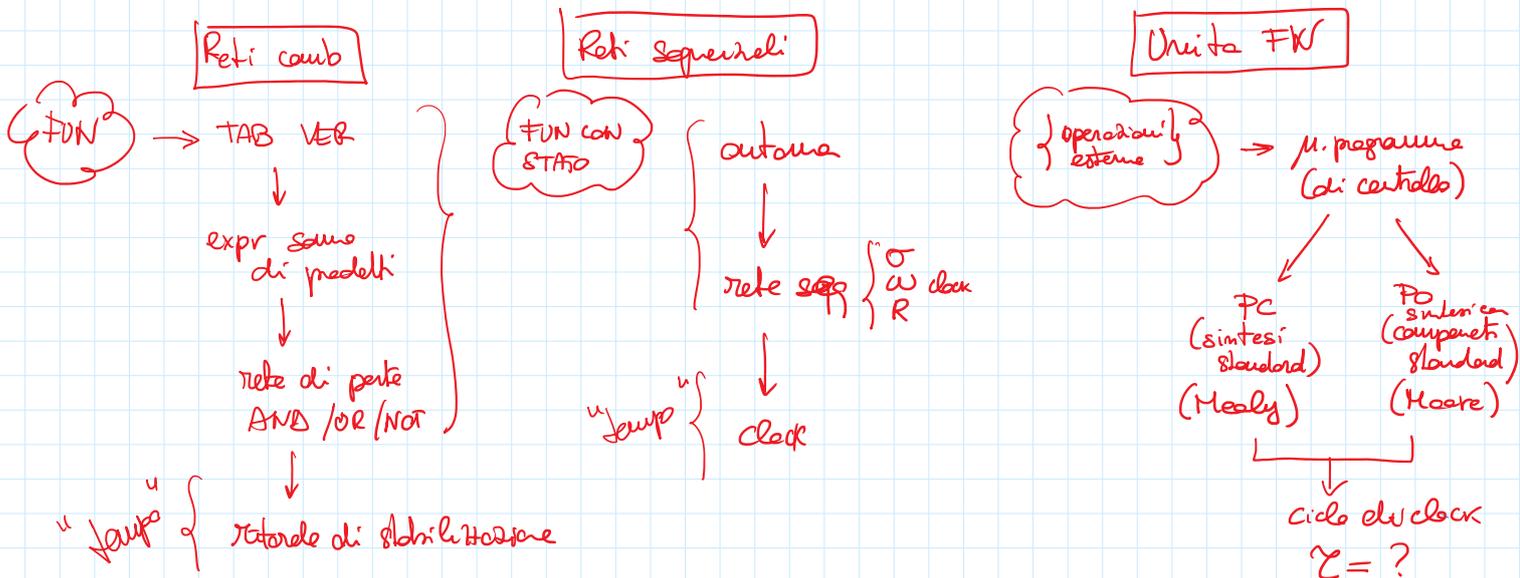
```
while (true) {
}
}
```

Implemento le "operazioni esterne"

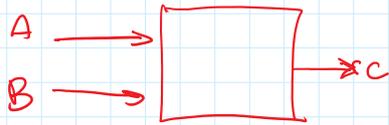
PC & PO : reti sequenziali

Variabili di condizionamento : uscite dello PO \equiv ingressi dello PC
 \rightarrow valori su cui lo PC decide come procedere nel programma di controllo

α, β : comandi che lo PC manda allo PO come conseguenza delle decisioni del programma di controllo



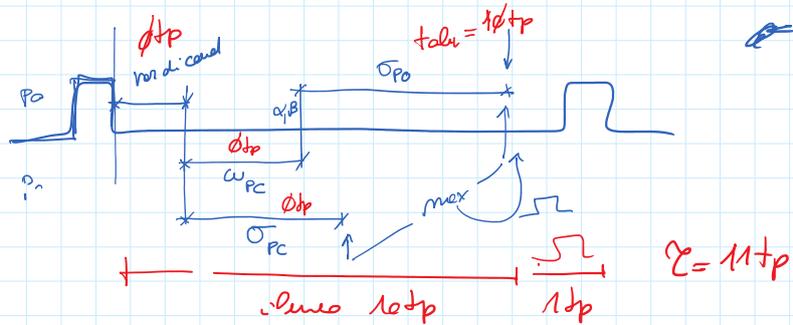
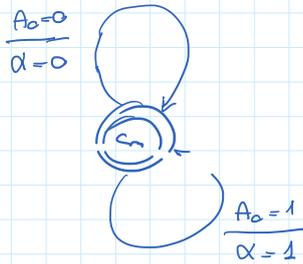
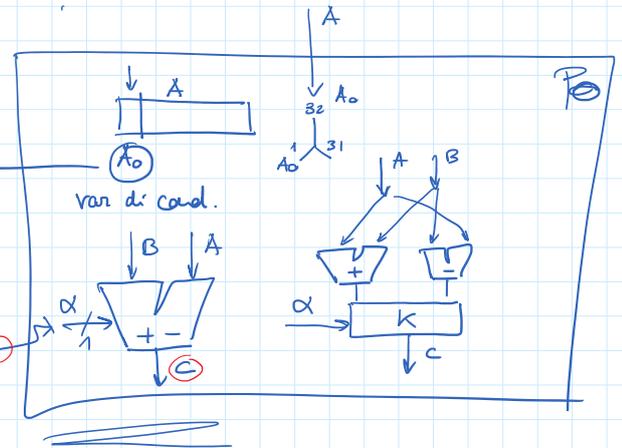
Esempio di UFM



$$\begin{aligned} A \geq 0 & \quad C = A + B \\ A < 0 & \quad C = -A + B = B - A \end{aligned}$$

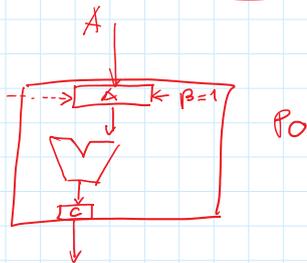
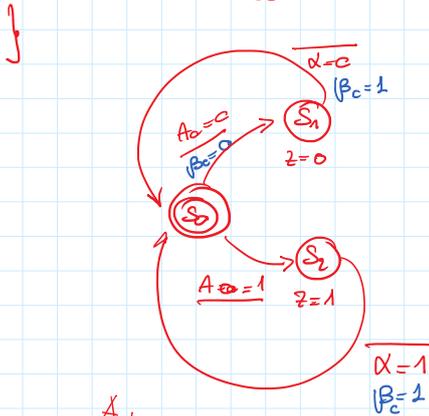
Specifica "a parole" dell'unico op esteso che voglio implementare

```
while (true) {
    if (A >= 0) then C = A + B;
    else C = B - A;
}
```

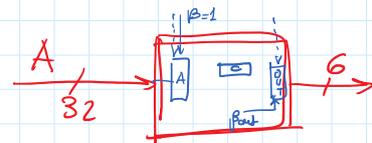


```
while (true) {
```

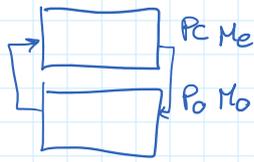
```
    z = A0;
    if (z = 0) then C = B + A
    else C = B - A
```



Unità che riceve parole e me certo gli "1" mettendo il risultato in uscita.



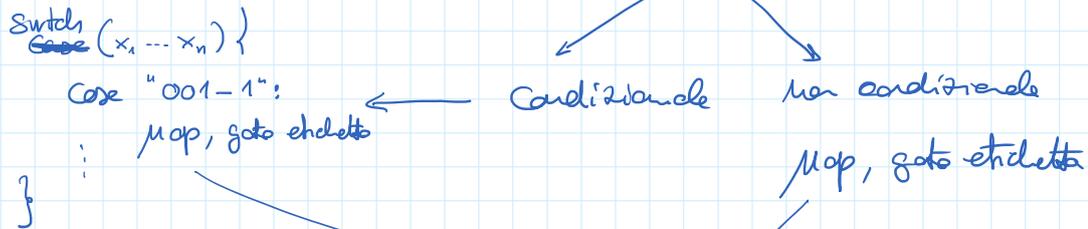
```
c = 0;
for (i = 0; i < 32; i++) {
    if (A0 == 1) { c++; };
    A <<= 1;
}
```



Al. linguaggio a struttura di fase

programma = seq di μ -istruzioni

↳ etichetta. frase

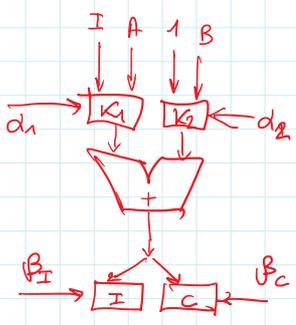
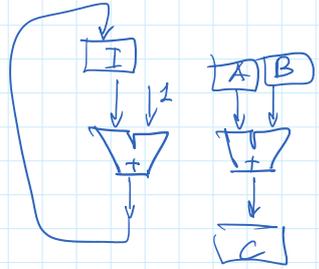


Seq di μ -op

op fra registri

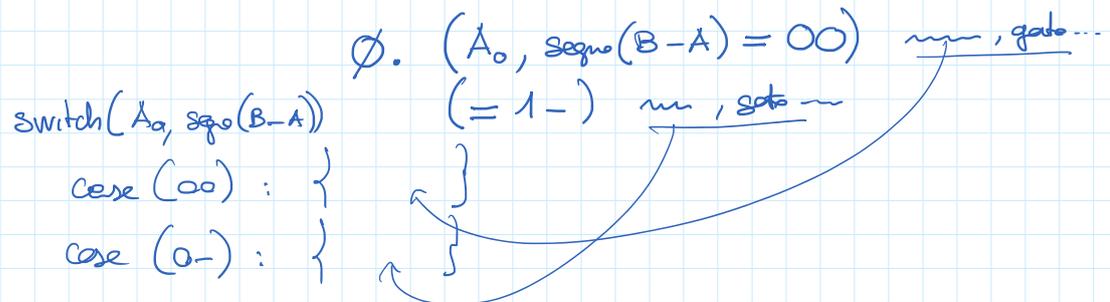
- $A + B \rightarrow C$
- $A \rightarrow B$
- $A \gg 1 \rightarrow A$ $SHR(A, 1) \rightarrow A$
- $IN \rightarrow M[IND]$
- $M[IND] \rightarrow B$
- $M[IND] + A \rightarrow B$

$I + 1 \rightarrow I, A + B \rightarrow C$
 esegui * e subito esegui *

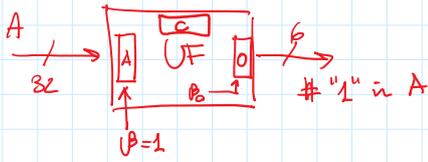


0. $I + 1 \rightarrow I$, goto 1 ($d_1=0, d_2=0, \beta_I=1, \beta_C=0$)
1. $A + B \rightarrow C$, goto 2 ($d_1=1, d_2=1, \beta_I=0, \beta_C=1$)

frase condizionale (esempio)



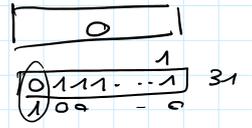
Esempio



```

while(true)
{
    C = 0;
    for(i=0; i<32; i++)
    {
        IF(A0 == 1) C++;
        A = SHL(A, 1);
    }
    0 = C;
}
    
```

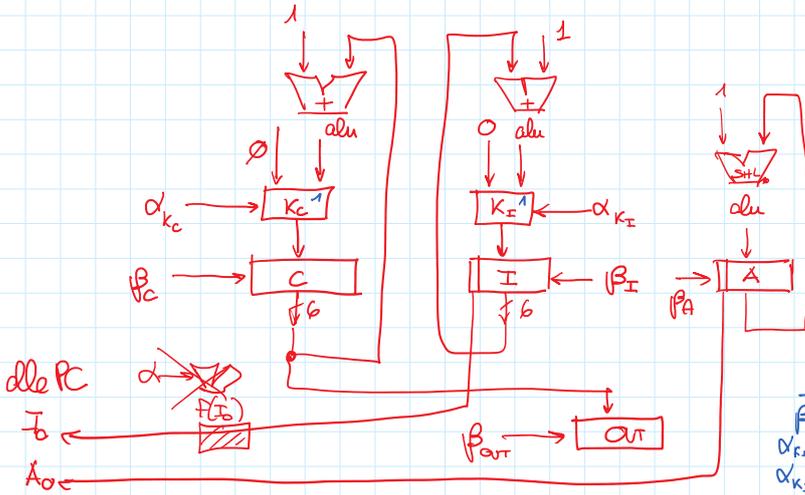
I da 6 bit



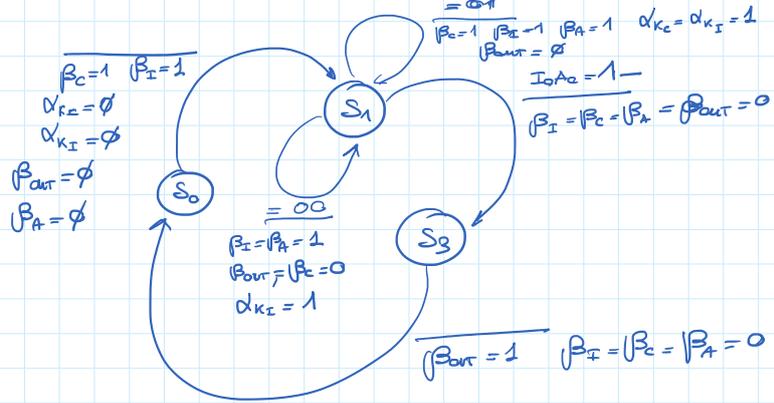
- et id
- 1. $(I_0, A_0 = 1)$ map, 3 $\beta_C = 0$
 $(= 01)$ $C+1 \rightarrow C, I+1 \rightarrow I, \beta_C = 1$
 $SHL(A, 1) \rightarrow A, 1$
 - $(= 00)$ $I+1 \rightarrow I, SHL(A, 1) \rightarrow A, 1$
 $\beta_C = 0$

3. $C \rightarrow 0, \phi$ $\beta_C = 0$

(Fwd ottenzese è un reg di upero) $\beta_C \rightarrow A$



delle PC
 I_0
 $A_0 = C$



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