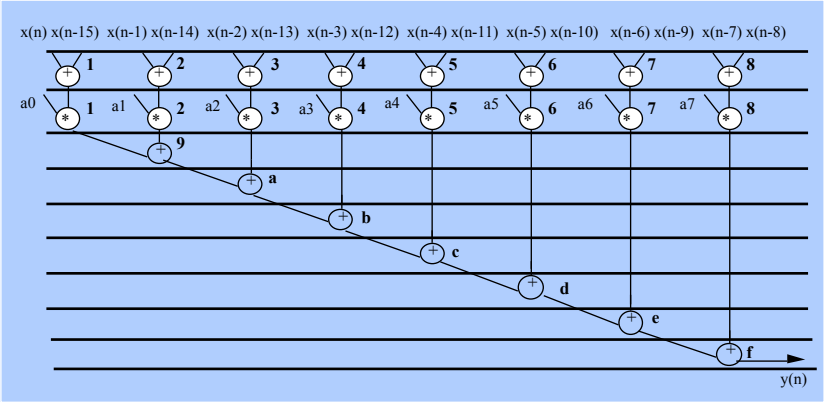
Filtre RIF symétrique sur 16 points



	+1	+2	+3	+4	+5	+6	+7	+8	+9	+a	+b	+c	+d	+e	+f	*1	*2	*3	*4	*5	*6	*7	*8
Mobilité :	0	0	1	2	3	4	5	6	0	0	0	0	0	0	0	0	0	1	2	3	4	5	6
Urgence :	8	8	7	6	5	4	3	2	6	5	4	3	2	1	0	7	7	6	5	4	3	2	1

EII3/M2R - 1

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Exemple

- Ordonnancement sur 1 additionneur et un multiplieur
- Priorité sur l'urgence

Add	1	2	3	4	9	5	a	6	b	7	c	8	d	e	f	
Mult		1	2	3	4		5		6		7		8			

- Priorité sur la mobilité

Add	1	2	3	9	a	4	5	b	c	6	7	d	e	8		f
Mult		1	2	3			4	5			6	7			8	

EII3/M2R - 2

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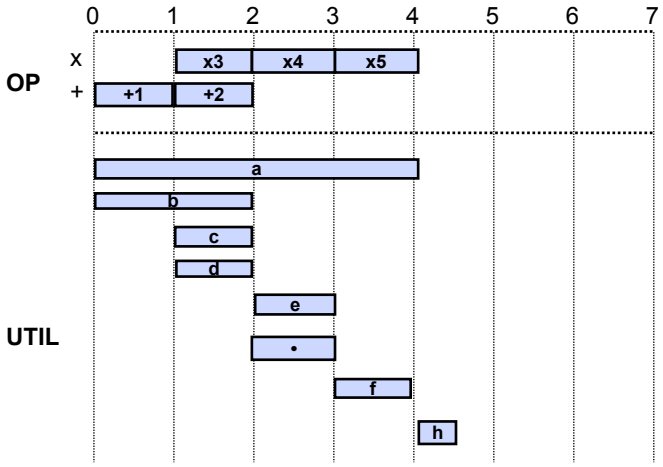
Exemple 1

Tadd = 20 ns
Tmult = 20 ns
Tclk = 20 ns

- Liste des Opérateurs et des Utilisations : OP et UTIL



Connexions

	Entrée	Sortie
R1	mem	+ in1 et x in1
R2	mem	+ in2
R3	+	+ in1 et x in1
R4	mem	x in2
R3	+	x in1
	x	x in2
R4	x	x in2
	x	mem

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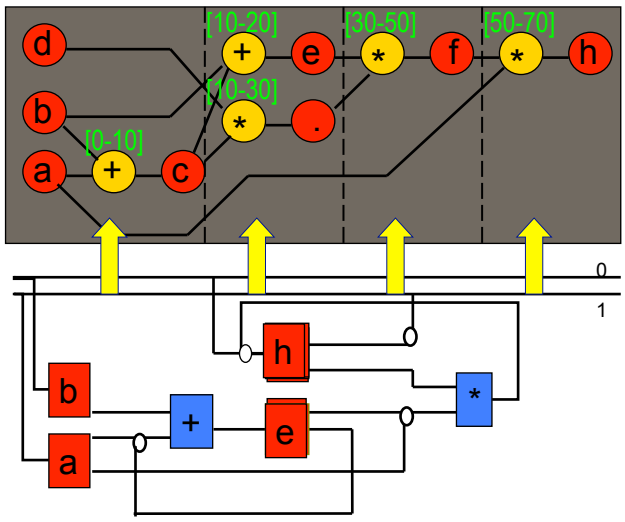
Exemple 1



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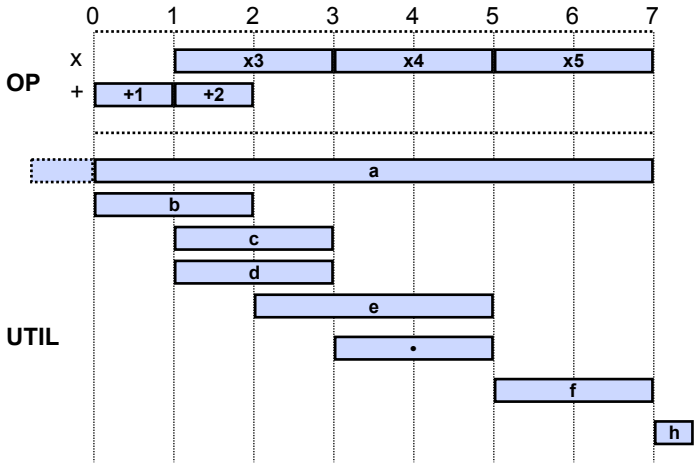
Exemple 2

- Liste des Opérateurs et des Utilisations : OP et UTIL



Connexions

	Entrée	Sortie
R1	mem	+ in1 et x in1
R2	mem	+ in2
R3	+	+ in1 et x in1
R4	mem	x in2
R5	+	x in1
R6	x	x in2
	x	x in2
	x	mem

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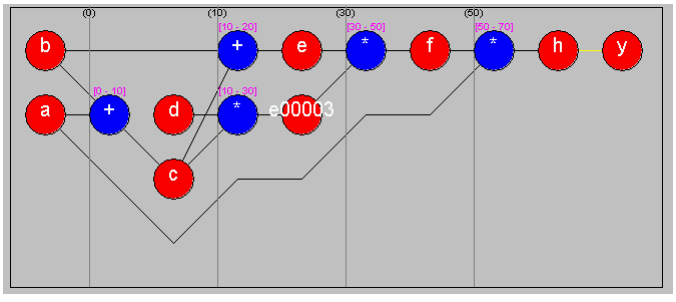
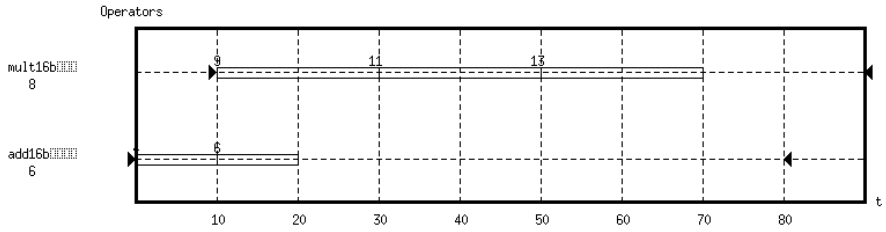
Exemple 2





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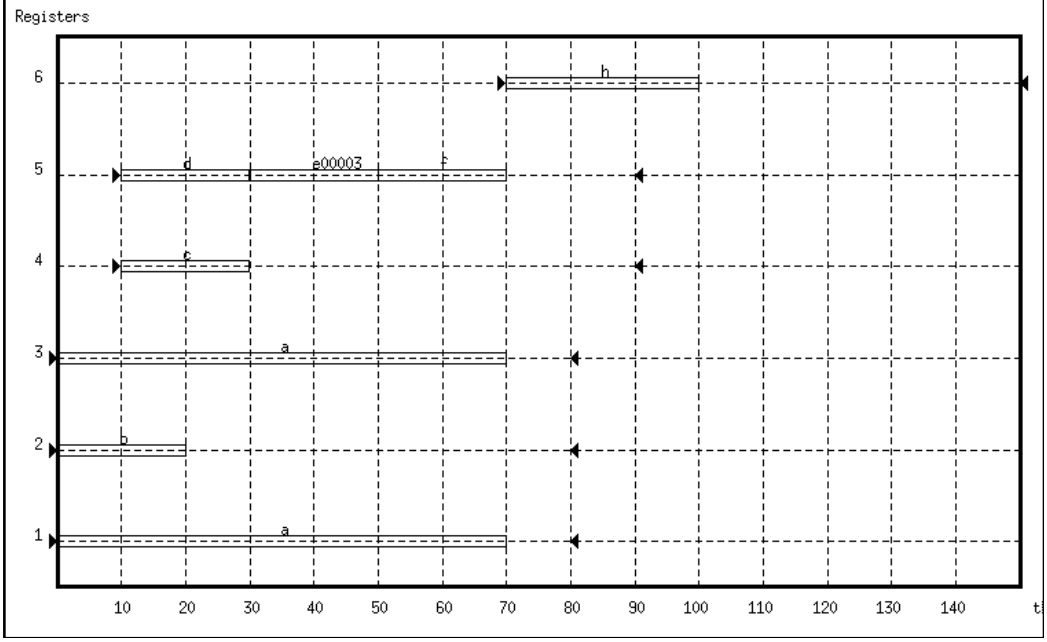
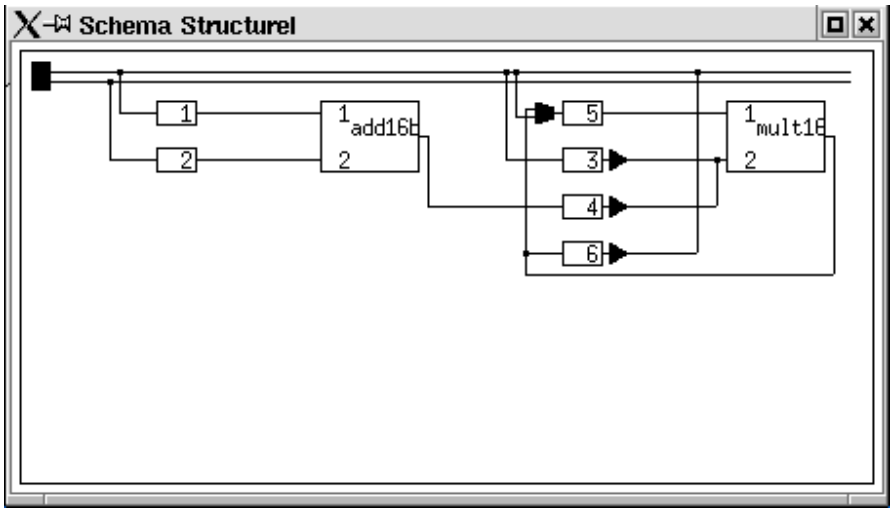
Exemple 2



Exemple 2



EII3/M2R - 9

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LMS

```
// LMS written in C for BSS

#define latency 2000 // ns
#define N 4

int main(int xn, int dn) {

  int i;
  int adapt, err, mu, y;
  int h[N];
  int x[N];

 // filtering
  y = 0;
  x[0] = xn;
  for (i=0; i<N; i++) {
    y += x[i] * h[N-i-1];
  }
  err = yt – y;
  adapt = mu * err;

  // adaptation
  for (i=0; i<N; i++) {
    h[i] = h[i] + adapt * x[N-i-1];
  }

  // signal
  for (i=0; i<N-1; i++) {
    x[N-1-i] = x[N-2-i];
  }

  return y;
}
```


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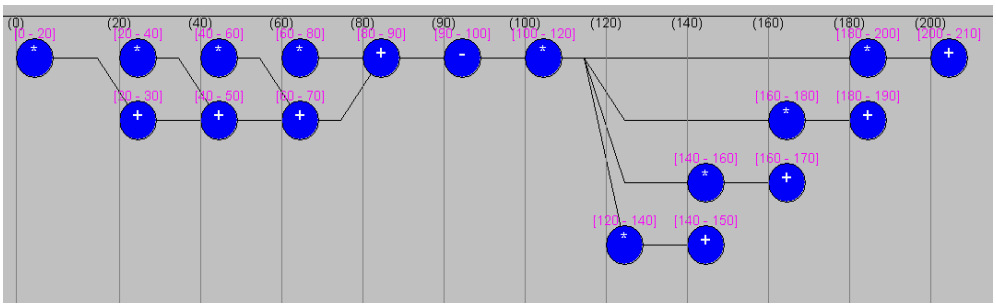
LMS



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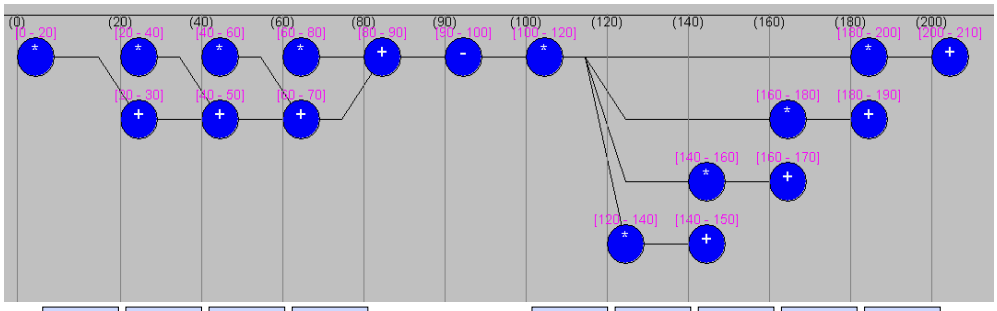
LMS



R1	x(0)	x(1)	x(2)	x(3)				mu	x(0)	x(1)	x(2)	x(3)			
R2	h(0)	h(1)	h(2)	h(3)											
R3		xi*hi	xi*hi	xi*hi	xi*hi	yt						h(i)	h(i)	h(i)	h(i)
R4		0	y	y	y	y						μ*err*xi	μ*err*xi	μ*err*xi	μ*err*xi
R5								err	μ*err						
R6												h(i)	h(i)	h(i)	

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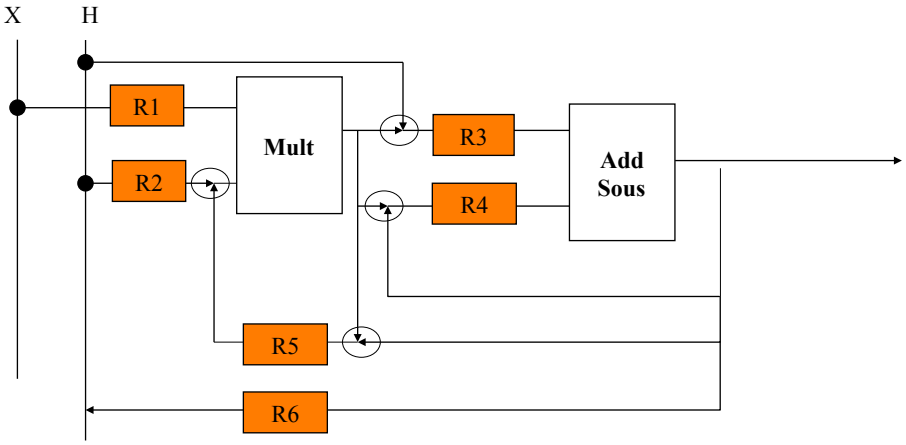
LMS

- Architecture de l' unité de traitement



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