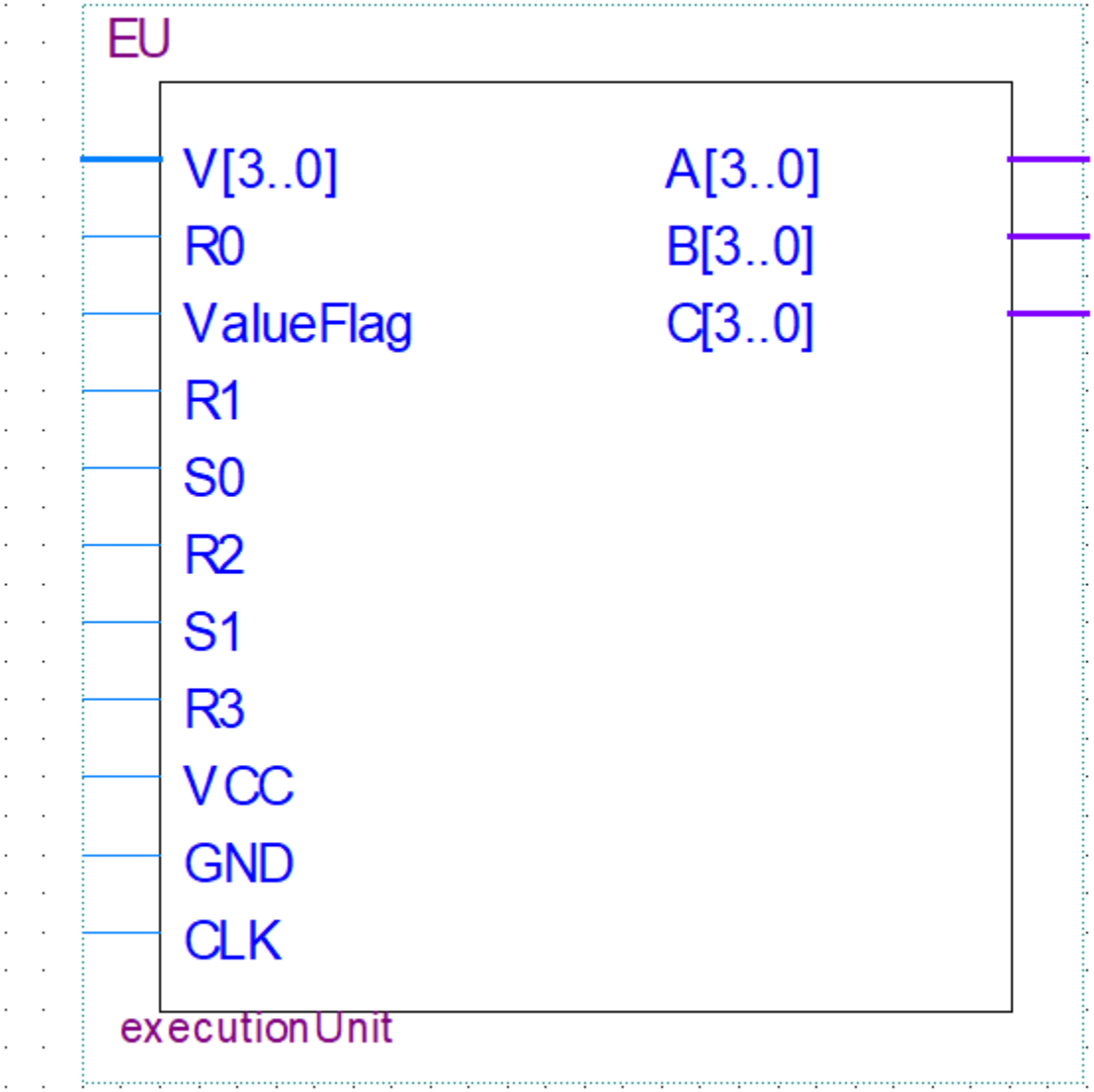
EU Documentation



EU function :

1- Move value to register
2- Add value to the existent value in register
3- And value with the existent value in register
4- Move value from one register to another
5- Add values of two registers and save it to the second register
6- And values of two registers and save it to the second register

Inputs:

1- S0, S1 : they are operator selectors

S1	S0	operation
0	0	MOVE
1	0	ADD
1	1	AND

2- Vf (value flag) : detect whether there is an external value input or not

vf	
0	No external vale
1	External value

3- R0,R1 : select which second register to enter the EU and the output gets saved in it

4- R2,R3 : select which first register to enter the EU , their value only matter when the value flag is zero

R1/R3	R0/R2	register
0	0	Register A
0	1	Register B
1	0	Register C

5- V[3..0] : the external value (4-bits)
6- VCC,GND : the high volt and the ground ie: (1 , 0) respectively
7- CLK : the clock for the registers , the operations are executed with the rising edge

Outputs:

The value stored in the three registers A, B and C.