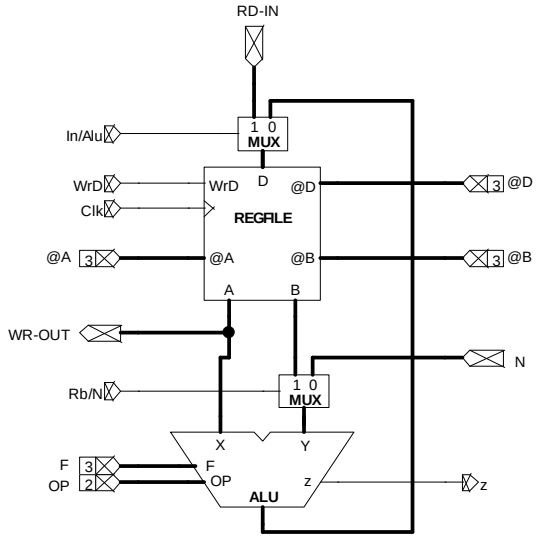
UPG básica



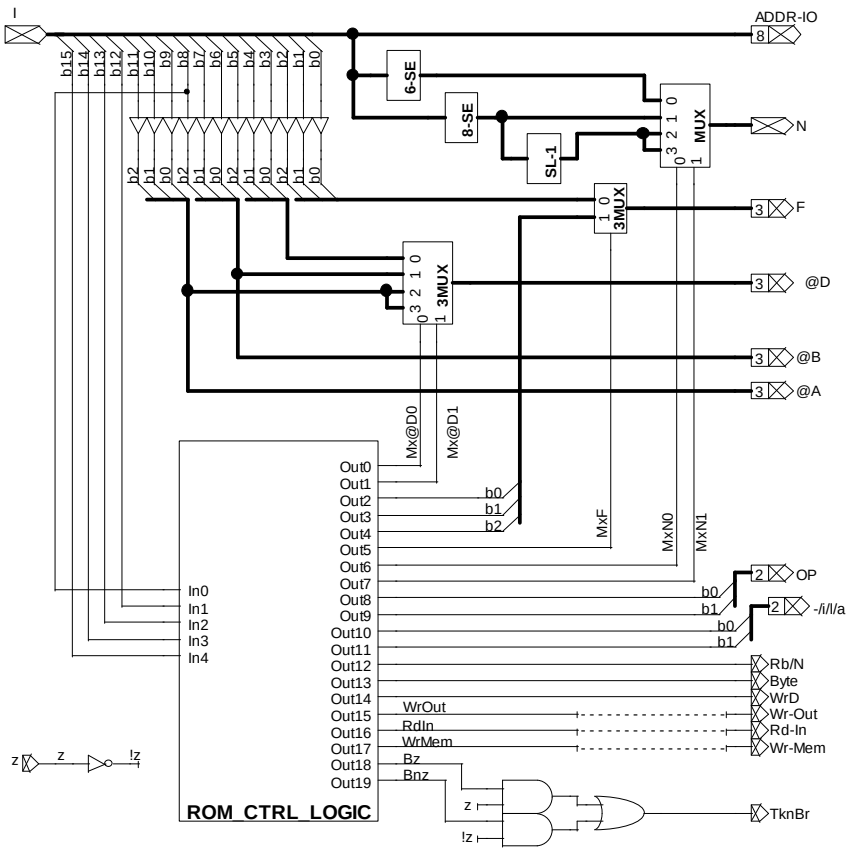
Formato Instrucciones SISA-I

15 14 13 12	11 10 9	8 7 6	5 4 3	2 1 0	Name	Mnemonic
0 0 0 0	a a a	b b b	d d d	f f f	Logic and Aritmetic Operations	AND, OR, XOR, NOT, ADD, SUB, SHA, SHL
0 0 0 1	a a a	b b b	d d d	f f f	Compare Signed and Unsigned	CMPLT, CMPLE, -,CMPEQ, CMPLTU, CMPLEU, -, -
0 0 1 0	a a a	d d d	n n n n n		Add Immediate	ADDI
0 0 1 1	a a a	d d d	n n n n n		Load	LD
0 1 0 0	a a a	b b b	n n n n n		Store	ST
0 1 0 1	a a a	d d d	n n n n n		Load Byte	LDB
0 1 1 0	a a a	b b b	n n n n n		Store Byte	STB
0 1 1 1						Branch future extension
1 0 0 0	a a a	0	n n n n n n n		Branch on Zero	BZ
		1			Branch on Not Zero	BNZ
1 0 0 1	d d d	0	n n n n n n n		Move Immediate	MOVI
	a a a d d d	1			Move Immediate High	MOVHI
1 0 1 0	d d d	0	n n n n n n n		Input	IN
	a a a	1			Output	OUT
1 0 1 1						Future extensions
1 1 x x						

Funcionalidades ALU

F	OP			
b_2 b_1 b_0	11	10	01	00
0 0 0	---	X	CMPLT (X,Y)	AND(X,Y)
0 0 1	---	Y	CMPLE (X,Y)	OR(X,Y)
0 1 0	---	MOVHI (X,Y)	---	XOR(X,Y)
0 1 1	---	---	CMPEQ (X,Y)	NOT(X)
1 0 0	---	---	CMPLTU (X,Y)	ADD(X,Y)
1 0 1	---	---	CMPLEU (X,Y)	SUB(X,Y)
1 1 0	---	---	---	SHA(X,Y)
1 1 1	---	---	---	SHL(X,Y)

Lógica de control del SISC Harvard Uniciclo



Computador SISC Harvard Uniciclo (UCG + UPG + IO + MEM)