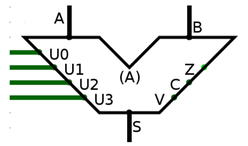
Instructions

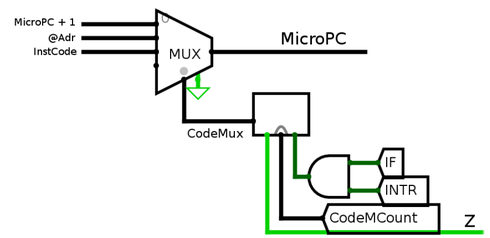
Nom	Mnémonique	Nb. d'arguments	Opération	Opcode
Fin du programme	END	0	Arrête la machine	0x0c
Load A immédiat	LDAi	1	A := operande	0x10
Load A direct	LDAd	1	A := RAM[operande]	0x14
Store A	STA	1	RAM[operande] := A	0x1c
Load B immédiat	LDBi	1	B := operande	0x20
Load B direct	LDBd	1	B := RAM[operande]	0x24
Store B	STB	1	RAM[operande] := B	0x2c
Add A	ADDA	0	A := A + B	0x30
Add B	ADDB	0	B := A + B	0x34
Sub A	SUBA	0	A := A - B	0x38
Sub B	SUBB	0	B := A - B	0x3c
Mul A	MULA	0	A := A × B	0x40
Mul B	MULB	0	B := A × B	0x44
Division de A par 2	DIVA	0	A := A / 2	0x48
And A	ANDA	0	A := A & B	0x50
And B	ANDB	0	B := A & B	0x54
Or A	ORA	0	A := A | B	0x58
Or B	ORB	0	B := A | B	0x5c
Not A	NOTA	0	A :=! A	0x60
Not B	NOTB	0	B :=! B	0x64
Branchement inconditionnel	JMP	1	PC := operande	0x70
Branchement si A nul	JZA	1	$PC := \begin{cases} \text{operande} & \text{si A} = 0 \\ PC + 1 & \text{sinon} \end{cases}$	0x74
Branchement si B nul	JZB	1	$PC := \begin{cases} \text{operande} & \text{si B} = 0 \\ PC + 1 & \text{sinon} \end{cases}$	0x78

Unité Arithématique et Logique (UAL)



Opcode ($U_3U_2U_1U_0$)	Opération
0000	S := A
0001	S := B
0010	S := A & B
0011	S := A | B
0100	S :=! A
0101	S :=! B
0110	S := A + B
0111	S := A - B
1000	S := A + 1
1001	S := A - 1
1010	S := A × B
1011	S := A >> 1

Multiplexeur du micro-compteur



CodeMCount	INTR&IF	Z	CodeMux	Opération
000	x	x	00	MicroPC := MicroPC + 1
001	x	x	01	MicroPC := @Adr
010	x	x	10	MicroPC := InstCode
011	x	0	00	MicroPC := MicroPC + 1
011	x	1	01	MicroPC := @Adr
100	0	x	01	MicroPC := @Adr
100	1	x	00	MicroPC := MicroPC + 1