

Micro-instructions table (Micro Program ROM):

Instr	µ-instr datapath	µ-instr addre	jump addre	seq cmd	IR	OW	MWR_ M0	Mux		ALU			ABw	IRw	PCw	SPw	ACcw	Valeur Hexadécimale
								M1	M0	F2	F1	F0						
Fetch	AB ← PC	01	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	IR ← AB,PC++	02	-	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0x00028C
	MPC ← IR	03	-	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0x004000
LD (Load)	AB ← PC	OPcode=04	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	05	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ←Mem[AB]	06	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Acc ←Mem[AB]	07	-	3	0	0	0	0	1	0	0	1	0	0	0	0	1	0x006121
LDI (Load Imme- diate)	AB ← PC	OPcode=08	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	09	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	Acc ←Mem[AB]	0A	-	3	0	0	0	0	1	0	0	1	0	0	0	0	1	0x006121
STR (Store)	AB ← PC	OPcode=0B	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	0C	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ←Mem[AB]	0D	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Mem[AB] ←Acc	0E	-	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0x006400
ADD	AB ← PC	OPcode=0F	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	10	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ←Mem[AB]	11	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Acc ←Mem[AB]	12	-	3	0	0	0	0	1	0	1	0	0	0	0	0	1	0x006141
ADDI	AB ← PC	OPcode=13	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	14	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	Acc ←Mem[AB]	15	-	3	0	0	0	0	1	0	1	0	0	0	0	0	1	0x006141
SUB	AB ← PC	OPcode=16	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	17	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ←Mem[AB]	18	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Acc ←Mem[AB]	19	-	3	0	0	0	0	1	0	1	1	0	0	0	0	1	0x006161
SUBI	AB ← PC	OPcode=1A	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	1B	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	Acc ←Mem[AB]	1C	-	3	0	0	0	0	1	0	1	1	0	0	0	0	1	0x006161
NAND	AB ← PC	OPcode=1D	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	1E	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ←Mem[AB]	1F	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Acc ←Mem[AB]	20	-	3	0	0	0	0	1	1	1	1	0	0	0	0	1	0x0061E1
NANDI	AB ← PC	OPcode=21	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	22	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	Acc ←Mem[AB]	23	-	3	0	0	0	0	1	1	1	1	0	0	0	0	1	0x0061E1
LSR	Acc ← Acc	OPcode=24	-	3	0	0	0	0	0	1	1	0	0	0	0	0	1	0x0060C1
NOP	-	OPcode=25	-	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0x006000

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								M1	M0	F2	F1	F0						
JMP	AB ← PC	OPcode=26	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	27	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
JMPI	AB ← PC	OPcode=28	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	AB ← Mem[AB]	29	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	PC ← Mem[AB]	2A	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
JSR	PC++	OPcode=2B	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ← SP	2C	-	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0x000330
	Mem[AB] ← PC	2D	-	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0x000620
	SP--	2E	-	0	0	0	0	1	1	1	0	1	0	0	0	1	0	0x0003A2
	PC--	2F	-	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0x0002A4
	AB ← PC	30	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	31	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
RTS	SP++	OPcode=32	-	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0x000382
	AB ← SP	33	-	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0x000330
	PC ← Mem[AB]	34	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
PUSH	AB ← SP	OPcode=35	-	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0x000330
	Mem[AB] ← Acc	36	-	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0x000400
	SP--	37	-	3	0	0	0	1	1	1	0	1	0	0	0	1	0	0x0063A2
POP	SP++	OPcode=38	-	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0x000382
	AB ← SP	39	-	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0x000330
	Acc ← Mem[AB]	3A	-	3	0	0	0	0	1	0	0	1	0	0	0	0	1	0x006121
CMP	AB ← PC	OPcode=3B	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	3C	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	AB ← Mem[AB]	3D	-	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0x000130
	Acc ← Mem[AB]	3E	-	3	0	0	0	0	1	0	1	1	0	0	0	0	0	0x006160
CMPI	AB ← PC	OPcode=3F	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC++	40	-	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0x000284
	Acc ← Mem[AB]	41	-	3	0	0	0	0	1	0	1	1	0	0	0	0	0	0x006160
BLT	Jump if Neg	OPcode=42	44	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0x44C000
	PC++	43	-	3	0	0	0	1	0	1	0	0	0	0	1	0	0	0x006284
	AB ← PC	44	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	45	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
BGE	Jump if not Neg	OPcode=46	48	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0x48E000
	PC++	47	-	3	0	0	0	1	0	1	0	0	0	0	1	0	0	0x006284
	AB ← PC	48	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	49	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124

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								M1	M0	F2	F1	F0						
BEQ	Jump if zero	OPcode=4A	4C	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0x4C8000
	PC++	4B	-	3	0	0	0	1	0	1	0	0	0	0	1	0	0	0x006284
	AB ← PC	4C	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	4D	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
BNE	Jump if not zero	OPcode=4E	50	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0x50A000
	PC++	4F	-	3	0	0	0	1	0	1	0	0	0	0	1	0	0	0x006284
	AB ← PC	50	-	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0x000230
	PC ← Mem[AB]	51	-	3	0	0	0	0	1	0	0	1	0	0	1	0	0	0x006124
OUT	Output Write	OPcode=52	-	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0x006800
IN	Input Request	OPcode=53	-	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0x001000
	Acc ← Input	54	-	3	0	0	0	0	0	0	0	1	0	0	0	0	1	0x006021
TAS	SP ← Acc	OPcode=55	-	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0x006002
TSA	Acc ← SP	OPcode=56	-	3	0	0	0	1	1	0	0	1	0	0	0	0	1	0x006321