ISA Description and OPcodes

ISA

Instruction	OPcode	Description	Format
add	00	Adds rA to rB	00 rA rB
sub	01	Subtracts rA from rB	01 rA rB
mul	02	Multiplies rB by rA	02 rA rB
div	03	Divides rB by rA	03 rA rB
mrmov	40	Moves D(rB) to rA	40 rA rB D (1 byte)
rmmov	50	Moves rA to D(rB)	50 rA rB D (1 byte)
rrmov	60	Moves rA to rB	60 rA rB
irmov	70	Moves V to rB	70 FF rB V (1 byte)
immov	80	Moves V to D(rB)	80 FF rB V (1 byte)
jmp	90	Unconditional jump to Dest	90 FF Dest (1 byte)
jle	91	Jump <= to Dest	91 FF Dest (1 byte)
jl	92	Jump < to Dest	92 FF Dest (1 byte)
je	93	Jump == to Dest	93 FF Dest (1 byte)
jne	94	Jump != to Dest	94 FF Dest (1 byte)
jg	95	Jump > to Dest	95 FF Dest (1 byte)
jge	96	Jump <= to Dest	96 FF Dest (1 byte)
halt	A0	Stops execution	A0
Maybe			
push	B0	Push rA to stack	B0 rA 0 01
pop	C0	Pop rA from stack	C0 rA 0 01

Registers

Register	Code
%eax	0
%ebx	1

Register	Code
%ecx	2
%edx	3
%rsp	4
%rbp	5

Flags

Flag	Code
No Flag	00
Neg Flag	01
Zero Flag	10