

ISA Description and OPcodes

ISA

Instruction	OPcode	Description	Format
add	00	Adds rA to rB	00 rA rB
sub	10	Subtracts rA from rB	10 rA rB
mul	20	Multiplies rB by rA	20 rA rB
div	30	Divides rB by rA	30 rA rB
rrmov	40	Moves D(rB) to rA	40 rA rB D (2 bytes)
rmmov	50	Moves rA to D(rB)	50 rA rB D (2 bytes)
rrmov	60	Moves rA to rB	60 rA rB
irmov	70	Moves V to rB	70 FF rB V (2 bytes)
immov	80	Moves V to D(rB)	80 FF rB V (2 bytes)
jmp	90	Unconditional jump to Dest	90 Dest (2 bytes)
jle	91	Jump <= to Dest	91 Dest (2 bytes)
j1	92	Jump < to Dest	92 Dest (2 bytes)
je	93	Jump == to Dest	93 Dest (2 bytes)
jne	94	Jump != to Dest	94 Dest (2 bytes)
jg	95	Jump > to Dest	95 Dest (2 bytes)
jge	96	Jump <= to Dest	96 Dest (2 bytes)
halt	A0	Stops execution	A0

Registers

Register	Code
%eax	0
%ebx	1
%ecx	2
%rsp	3
%rbp	4