



Arithmetic instructions:

addl → fn = 0 subl → fn = 1 mull → fn = 4 modl → fn = 6

andl → fn = 2 xorl → fn = 3 divl → fn = 5

Conditional jumps and moves:

jmp fn = 0 jle → fn = 1 jl fn = 2 je → fn = 3

jne fn = 4 jge → fn = 5 jg fn = 6

rrmovq fn = 0 cmovle → fn = 1 cmovl fn = 2 cmovbe → fn = 3

cmovge fn = 4 cmovge → fn = 5 cmovg fn = 6

Register Numbering (in hex)

0 %rax 1 %rcx 2 %rdx 3 %rbx 4 %rsp 5 %rbp 6 %rsi 7 %rdi

8 %r8 9 %r9 A %r10 B %r11 C %r12 D %r13 E %r14

F No register

Byte	0	1	2	3	4	5	6	7	8	9
halt	0	0								
nop	1	0								
rrmovq rA, rB	2	0	rA	rB						
irmovq V, rB	3	0	F	rB					V	
rrmovq rA, D (rB)	4	0	rA	rB					D	
mrmovq D (rB), rA	5	0	rA	rB					D	
OPq rA, rB	6	fn	rA	rB						
jXX Dest	7	fn							Dest	
cmovXX rA, rB	2	fn	rA	rB						
call Dest	8	0							Dest	
ret	9	0								
pushq rA	A	0	rA	F						
popq rA	B	0	rA	F						