

Operation	Operands	Opcode
ADC	see ADD	ADD opcode + \$10, and xx010xxx (ModR/M byte) for \$80-\$83
ADD	r/m8, reg8	\$00
ADD	r/m16, reg16	\$01
ADD	reg8, r/m8	\$02
ADD	reg16, r/m16	\$03
ADD	AL, imm8	\$04
ADD	AX, imm16	\$05
ADD	r/m8, imm8	\$80 xx000xxx (ModR/M byte)
ADD	r/m16, imm16	\$81 xx000xxx (ModR/M byte)
ADD	r/m16, imm8	\$83 xx000xxx (ModR/M byte)
AND	see ADD	ADD opcode + \$20, and xx100xxx (ModR/M byte) for \$80, \$81,\$83
CALL	32-bit displacement	\$9A
CALL	16-bit displacement	\$E8
CLD		\$FC
CMP	See ADD	ADD opcode + \$38, and xx111xxx (ModR/M byte) for \$80, \$81,\$83
CMPSB	ES:[DI]==DS:[SI]	\$A6
CMPW	ES:[DI]==DS:[SI]	\$A7
DEC	r/m8	\$FE, xx001xxx (ModR/M byte)
DEC	r/m16	\$FF, xx001xxx (ModR/M byte)
DEC	reg16	\$48 + reg16 code
DIV	r/m8	\$F6, xx110xxx (ModR/M byte)
DIV	r/m16	\$F7, xx110xxx (ModR/M byte)
HLT		\$F4
IDIV	r/m8	\$F6, xx111xxx (ModR/M byte)
IDIV	r/m16	\$F7, xx111xxx (ModR/M byte)
IMUL	r/m8	\$F6, xx101xxx (ModR/M byte)
IMUL	r/m16	\$F7, xx101xxx (ModR/M byte)
IN	AL, addr8	\$E4
IN	AX, addr8	\$E5
IN	AL, port[DX]	\$EC
IN	AX, port[DX]	\$ED
INC	r/m8	\$FE, xx000xxx (ModR/M byte)
INC	r/m16	\$FF, xx000xxx (ModR/M byte)
INC	reg16	\$40 + reg16 code
IRET	48-bit POP	\$CF
JA	8-bit relative	\$77
JAE	8-bit relative	\$73
JB	8-bit relative	\$72
JBE	8-bit relative	\$76
JE	8-bit relative	\$74
JG	8-bit relative	\$7F
JGE	8-bit relative	\$7D
JL	8-bit relative	\$7C
JLE	8-bit relative	\$7E
JMP	32-bit displacement	\$EA
JNE	8-bit relative	\$75
JZ	8-bit relative	\$74
LDS	reg16, mem32	\$C4
LES	reg16, mem32	\$C5
LODSB	AL = DS:[SI]	\$AC
LODSW	AX = DS:[SI]	\$AD

LOOP	8-bit relative	\$E2
MOV	r/m8, reg8	\$88
MOV	r/m16, reg16	\$89
MOV	AL, mem8	\$A0
MOV	AX, mem16	\$A1
MOV	mem8, AL	\$A2
MOV	mem16, AX	\$A3
MOV	reg8, imm8	\$B0 + reg8 code
MOV	reg16,imm16	\$B8 + reg16 code
MOV	r/m8, imm8	\$C6, xx000xxx(ModR/M byte)
MOV	r/m16, imm16	\$C7, xx000xxx(ModR/M byte)
MOV	r/m16,sreg	\$8C, xx0 sreg xxx(ModR/M byte)
MOV	sreg, r/m16	\$8E, xx0 sreg xxx(ModR/M byte)
MOVSB	ES:[DI] = DS:[SI]	\$A4
MOVSW	ES:[DI] = DS:[SI]	\$A5
MUL	r/m8	\$F6, xx100xxx (ModR/M byte)
MUL	r/m16	\$F7, xx100xxx (ModR/M byte)
NEG	r/m8	\$F6, xx011xxx (ModR/M byte)
NEG	r/m16	\$F7, xx011xxx (ModR/M byte)
NOT	r/m8	\$F6, xx010xxx (ModR/M byte)
NOT	r/m16	\$F7, xx010xxx (ModR/M byte)
OR	see ADD	ADD opcode + \$08, and xx001xxx (ModR/M byte) for \$80, \$81,\$83
OUT	addr8, AL	\$E6
OUT	addr8, AX	\$E7
OUT	port[DX], AL	\$EE
OUT	port[DX], AX	\$EF
POP	r/m16	\$8F
POP	reg16	\$58 + reg16 code
POP	sreg	\$07 + ES = 0, CS = 8, SS = \$10, DS = \$18
PUSH	r/m16	\$FF, xx110xxx (ModR/M byte)
PUSH	reg16	\$50 + reg16 code
PUSH	sreg	\$06 + ES = 0, CS = 8, SS = \$10, DS = \$18
REP		\$F3
REPNE		\$F2
RET	32-bit POP	\$CA
RET	16-bit POP	\$C2
SBB	see ADD	ADD opcode + \$18, and xx011xxx (ModR/M byte) for \$80, \$81,\$83
SCASB	ES:[DI] == AL	\$AE
SCASW	ES:[DI] == AX	\$AF
STD		\$FD
STOSB	ES:[DI] = AL	\$AA
STOSW	ES:[DI] = AX	\$AB
SUB	see ADD	ADD opcode + \$28, and xx101xxx (ModR/M byte) for \$80, \$81,\$83
XOR	see ADD	ADD opcode + \$30, and xx110xxx (ModR/M byte) for \$80, \$81,\$83

addr8 = 8-bit address of I/O port

reg8 = AL = 0, CL = 1, DL = 2, BL = 3, AH =4, CH = 5, DH = 6, BH = 7

reg16 = AX = 0, CX =1, DX =2, BX =3, SP = 4, BP = 5, SI = 6, DI = 7

sreg = ES = 0, CS = 1, SS = 2, DS = 3

mem8 = memory byte (direct addressing only)

mem16 = memory word (direct addressing only)

r/m8 = reg8 or mem8

r/m16 = reg16 or mem16

imm8 = 8 bit immediate

imm16 = 16 bit immediate