

Coloso. Hoja de Referencia

Cd	Registro destino
Cs, Ct	Registros fuente
PC	Program Counter
Addr	Dirección de salto
OFF15	Offset de la posición
DIR15	Dirección de memoria

Operaciones Aritméticas		
ADD Cd, Cs, Ct		$Cd = Cs + Ct$ (Overflow)
ADD Cd, Cs, !Imm_15		$Cd = Cs + Imm_{15}$ (Overflow)
SUB Cd, Cs, Ct		$Cd = Cs - Ct$ (Overflow)
SUB Cd, Cs, !Imm_15		$Cd = Cs - Imm_{15}$ (Overflow)
ADDUN Cd, Cs, Ct		$Cd = Cs + Ct$
ADDUN Cd, Cs, !Imm_15		$Cd = Cs + Imm_{15}$
SUBUN Cd, Cs, Ct		$Cd = Cs - Ct$
SUBUN Cd, Cs, !Imm_15		$Cd = Cs - Imm_{15}$
MUL Cd, Cs, Ct		$Cd = Cs * Ct$
MUL Cd, Cs, !Imm_15		$Cd = Cs * Imm_{15}$

Operaciones Lógicas		
AND Cd, Cs, Ct		$Cd = Cs \& Ct$
AND Cd, Cs, !Imm_15		$Cd = Cs \& Imm_{15}$
OR Cd, Cs, Ct		$Cd = Cs Ct$
OR Cd, Cs, !Imm_15		$Cd = Cs Imm_{15}$
NOR Cd, Cs, Ct		$Cd = \sim (Cs Ct)$
NOR Cd, Cs, !Imm_15		$Cd = \sim (Cs \& Imm_{15})$
XOR Cd, Cs, Ct		
XOR Cd, Cs, !Imm_15		

Operaciones Control de Flujo		
BREQ Cs, Ct, AddrB		Si $Cs == Ct$ $PC += Addr$
BRGT Cs, Ct, AddrB		Si $Cs > Ct$ $PC += Addr$
BRGTEQ Cs, Ct, AddrB		Si $Cs \geq Ct$ $PC += Addr$
JUMP Addr		$PC = PC_{31:28}::Addr$
BRLN Addr		$C15 = PC + 8;$ $PC = Addr$

Operaciones Memoria		
STOREREG Ct, (OFF15, Cs)		$MEM32[Cs + OFF15] = Ct$
STOREREG Ct, (DIR15)		$MEM32[DIR15] = Ct$
LOADREG Ct, (OFF15, Cs)		$Ct = MEM32[Cs + OFF15]$
LOADREG Ct, (DIR15)		$Ct = MEM32[DIR15]$
STOREBYTE Ct, (OFF15, Cs)		$MEM16[Cs + OFF15] = Ct_{7:0}$
STOREBYTE Ct, (DIR15)		$MEM16[DIR15] = Ct_{7:0}$
LOADBYTE Ct, (OFF15, Cs)		$Ct = MEM8[Cs + OFF15]$
LOADBYTE Ct, (DIR15)		$Ct = MEM8[DIR15]$
STOREHALF Ct, (OFF15, Cs)		$MEM16[Cs + OFF15] = Ct_{15:0}$
STOREHALF Ct, (DIR15)		$MEM16[DIR15] = Ct_{15:0}$
LOADHALF Ct, (OFF15, Cs)		$Ct = MEM16[Cs + OFF15]$
LOADHALF Ct, (DIR15)		$Ct = MEM16[OFF15]$

Operaciones Desplazamiento		
SHIFTR Cd, Shamt (Cs)		$Cd = Cs \gg Shamt$
SHIFTL Cd, Shamt (Cs)		$Cd = Cs \ll Shamt$
INIT Cs, Ct		$Cs = Ct$

Mnemónico	Nombre
Add	Suma con signo
Sub	Resta con signo
Multiply	Multiplicación
Add unsigned	Suma sin signo
Sub unsigned	Resta sin signo
Multiply unsigned	Multiplicación sin signo
And	Operación Lógica Y
Or	Operación Lógica O
Xor	Operación Lógica O excluyente
Nor	Operación Lógica O Negada
Branch on equal	Salto condicional Igual
Branch greater than	Salto condicional Mayor que
Branch greater equal than	Salto condicional Mayor Igual que
Jump	Salto Incondicional
Branch and link	Salto y enlace
Load register	Cargar registro
Store register	Almacenar registro
Store byte	Almacenar Registro
Load byte	Cargar Byte
Store half register	Almacenar Media Palabra
Load half register	Cargar Media Palabra
Logical shift right	Desplazamiento a la derecha
Logical shift left	Desplazamiento a la izquierda
Init	Intercambio