

index by qtspim

src: qtspim help

| | instruction | syntax | Opcode | | | | | | |
|----|-------------|-------------------|--------|--------|------|--------|-------|-------------|------|
| | | | 6 | 5 | 5 | 5 | 5 | 6 | bits |
| 1 | add | add rd, rs, rt | 0 | rs | rt | rd | 0 | 0x20 | |
| 2 | addu | addu rd, rs, rt | 0 | rs | rt | rd | 0 | 0x21 | |
| 3 | addi | addi rt, rs, imm | 8 | rs | rt | imm | | | |
| 4 | addiu | addiu rt, rs, imm | 9 | rs | rt | imm | | | |
| 5 | and | and rd, rs, rt | 0 | rs | rt | rd | 0 | 0x24 | |
| 6 | andi | andi rt, rs, imm | 0xc | rs | rt | imm | | | |
| 7 | clo | clo rd, rs | 0x1c | rs | 0 | rd | 0 | 0x21 | |
| 8 | clz | clz rd, rs | 0x1c | rs | 0 | rd | 0 | 0x20 | |
| 9 | div | div rs, rt | 0 | rs | rt | 0 | 0 | 0x1a | |
| 10 | divu | divu rs, rt | 0 | rs | rt | 0 | 0 | 0x1b | |
| 11 | mult | mult rs, rt | 0 | rs | rt | 0 | 0 | 0x18 | |
| 12 | multu | multu rs, rt | 0 | rs | rt | 0 | 0 | 0x19 | |
| 13 | mul | mul rd, rs, rt | 0x1c | rs | rt | rd | 0 | 2 | |
| 14 | madd | madd rs, rt | 0x1c | rs | rt | 0 | 0 | 0 | |
| 15 | maddu | maddu rs, rt | 0x1c | rs | rt | 0 | 0 | 1 | |
| 16 | msub | msub rs, rt | 0x1c | rs | rt | 0 | 0 | 4 | |
| 17 | msubu | msubu rs, rt | 0x1c | rs | rt | 0 | 0 | 5 | |
| 18 | nor | nor rd, rs, rt | 0 | rs | rt | rd | 0 | 0x27 | |
| 19 | or | or rd, rs, rt | 0 | rs | rt | rd | 0 | 0x25 | |
| 20 | ori | ori rt, rs, imm | 0xd | rs | rt | imm | | | |
| 21 | sll | sll rd, rt, shamt | 0 | 0 | rt | rd | shamt | 0 | |
| 22 | sllv | sllv rd, rt, rs | 0 | rs | rt | rd | 0 | 4 | |
| 23 | sra | sra rd, rt, shamt | 0 | 0 | rt | rd | shamt | 3 | |
| 24 | srav | srav rd, rt, rs | 0 | rs | rt | rd | 0 | 7 | |
| 25 | srl | srl rd, rt, shamt | 0 | 0 | rt | rd | shamt | 2 | |
| 26 | srlv | srlv rd, rt, rs | 0 | rs | rt | rd | 0 | 6 | |
| 27 | sub | sub rd, rs, rt | 0 | rs | rt | rd | 0 | 0x22 | |
| 28 | subu | subu rd, rs, rt | 0 | rs | rt | rd | 0 | 0x23 | |
| 29 | xor | xor rd, rs, rt | 0 | rs | rt | rd | 0 | 0x26 | |
| 30 | xori | xori rt, rs, imm | 0xe | rs | rt | imm | | | |
| 31 | lui | lui rt, imm | 0xf | 0 | rt | imm | | | |
| 32 | slt | slt rd, rs, rt | 0 | rs | rt | rd | 0 | 0x2a | |
| 33 | sltu | sltu rd, rs, rt | 0 | rs | rt | rd | 0 | 0x2b | |
| 34 | slti | slti rt, rs, imm | 0xa | rs | rt | imm | | | |
| 35 | sltiu | sltiu rt, rs, imm | 0xb | rs | rt | imm | | | |
| 36 | bc1f | bc1f cc, label | 0x11 | 8 | cc;0 | offset | | cc (3 bits) | |
| 37 | bc1t | bc1t cc, label | 0x11 | 8 | cc;1 | offset | | cc (3 bits) | |
| 38 | beq | beq rs, rt, label | 4 | rs | rt | offset | | | |
| 39 | bgez | bgez rs, label | 1 | rs | 1 | offset | | | |
| 40 | bgezal | bgezal rs, label | 1 | rs | 0x11 | offset | | | |
| 41 | bgtz | bgtz rs, label | 7 | rs | 0 | offset | | | |
| 42 | blez | blez rs, label | 6 | rs | 0 | offset | | | |
| 43 | bltzal | bltzal rs, label | 1 | rs | 0x10 | offset | | | |
| 44 | bltz | bltz rs, label | 1 | rs | 0 | offset | | | |
| 45 | bne | bne rs, rt, label | 5 | rs | rt | offset | | | |
| 46 | j | j target | 2 | target | | | | | |
| 47 | jal | jal target | 3 | target | | | | | |

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|----|----------|------------------|------|------|------|--------|--------|------|--------------------------|
| 48 | jalr | jalr rs, rd | 0 | rs | 0 | rd | 0 | 9 | |
| 49 | jr | jr rs | 0 | rs | 0 | 0 | 0 | 8 | |
| 50 | teq | teq rs, rt | 0 | rs | rt | 0 | 0 | 0x34 | |
| 51 | teqi | teqi rs, imm | 1 | rs | 0xc | | imm | | |
| 52 | tne | tne rs, rt | 0 | rs | rt | 0 | 0 | 0x36 | |
| 53 | tneqi | tneqi rs, imm | 1 | rs | 0xe | | imm | | |
| 54 | tge | tge rs, rt | 0 | rs | rt | 0 | 0 | 0x30 | |
| 55 | tgeu | tgeu rs, rt | 0 | rs | rt | 0 | 0 | 0x31 | |
| 56 | tgei | tgei rs, imm | 1 | rs | 8 | | imm | | |
| 57 | tgeiu | tgeiu rs, imm | 1 | rs | 9 | | imm | | |
| 58 | tlr | tlr rs, rt | 0 | rs | rt | 0 | 0 | 0x32 | |
| 59 | tlru | tlru rs, rt | 0 | rs | rt | 0 | 0 | 0x33 | |
| 60 | tlri | tlri rs, imm | 1 | rs | 0xa | | imm | | |
| 61 | tlriu | tlriu rs, imm | 1 | rs | 0xb | | imm | | |
| 62 | lb | lb rt, address | 0x20 | rs | rt | | offset | | |
| 63 | lbu | lbu rt, address | 0x24 | rs | rt | | offset | | |
| 64 | lh | lh rt, address | 0x21 | rs | rt | | offset | | |
| 65 | lhu | lhu rt, address | 0x25 | rs | rt | | offset | | |
| 66 | lw | lw rt, address | 0x23 | rs | rt | | offset | | |
| 67 | lwc1 | lwc1 ft, address | 0x31 | rs | ft | | offset | | |
| 68 | lwl | lwl rt, address | 0x22 | rs | rt | | offset | | |
| 69 | lwr | lwr rt, address | 0x26 | rs | rt | | offset | | |
| 70 | ll | ll rt, address | 0x30 | rs | rt | | offset | | |
| 71 | sb | sb rt, address | 0x28 | rs | rt | | offset | | |
| 72 | sh | sh rt, address | 0x29 | rs | rt | | offset | | |
| 73 | sw | sw rt, address | 0x2b | rs | rt | | offset | | |
| 74 | swc1 | swc1 ft, address | 0x31 | rs | ft | | offset | | |
| 75 | sdc1 | sdc1 ft, address | 0x3d | rs | ft | | offset | | |
| 76 | swl | swl rt, address | 0x2a | rs | rt | | offset | | |
| 77 | swr | swr rt, address | 0x2e | rs | rt | | offset | | |
| 78 | sc | sc rt, address | 0x38 | rs | rt | offset | | | |
| 79 | mfhi | mfhi rd | 0 | 0 | 0 | rd | 0 | 0x10 | |
| 80 | mfl | mfl rd | 0 | 0 | 0 | rd | 0 | 0x12 | |
| 81 | mthi | mthi rs | 0 | rs | 0 | 0 | 0 | 0x11 | |
| 82 | mli | mli rs | 0 | rs | 0 | 0 | 0 | 0x13 | |
| 83 | mfc0 | mfc0 rt, rd | 0x10 | 0 | rt | rd | 0 | 0 | |
| 84 | mfc1 | mfc1 rt, rd | 0x11 | 0 | rt | rd | 0 | 0 | |
| 85 | mtc0 | mtc0 rd, rt | 0x10 | 4 | rt | rd | 0 | 0 | |
| 86 | mtc1 | mtc1 rt, rd | 0x11 | 4 | rt | rd | 0 | 0 | |
| 87 | movn | movn rd, rs, rt | 0 | rs | rt | rd | 0 | 0xb | |
| 88 | movz | movz rd, rs, rt | 0 | rs | rt | rd | 0 | 0xa | |
| 89 | movf | movf rd, rs, cc | 0 | rs | cc;0 | rd | 0 | 1 | cc (3 bits) |
| 90 | movt | movt rd, rs, cc | 0 | rs | cc;1 | rd | 0 | 1 | cc (3 bits) |
| 91 | abs.d | abs.d fd, fs | 0x11 | 1 | 0 | fs | fd | 4 | |
| 92 | abs.s | abs.s fd, fs | 0x11 | 1 | 0 | fs | fd | 5 | |
| 93 | add.d | add.d fd, fs, ft | 0x11 | 0x11 | ft | fs | fd | 0 | |
| 94 | add.s | add.s fd, fs, ft | 0x11 | 0x10 | ft | fs | fd | 0 | |
| 95 | ceil.w.d | ceil.w.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0xe | |
| 96 | ceil.w.s | ceil.w.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0xe | |
| 97 | c.e.d | c.e.d cc, fs, ft | 0x11 | 0x11 | ft | fs | cc;0 | fc;2 | cc (3 bits); fc (2 bits) |
| 98 | c.e.s | c.e.s cc, fs, ft | 0x11 | 0x10 | ft | fs | cc;0 | fc;2 | cc (3 bits); fc (2 bits) |

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| 99 | c.le.d | c.le.d cc, fs, ft | 0x11 | 0x11 | ft | fs | cc;0 | fc;0xe | cc (3 bits); fc (2 bits) |
| 100 | c.ls.s | c.le.s cc, fs, ft | 0x11 | 0x10 | ft | fs | cc;0 | fc;0xe | cc (3 bits); fc (2 bits) |
| 101 | c.lt.d | c.lt.d cc, fs, ft | 0x11 | 0x11 | ft | fs | cc;0 | fc;0xc | cc (3 bits); fc (2 bits) |
| 102 | c.lt.s | c.lt.s cc, fs, ft | 0x11 | 0x10 | ft | fs | cc;0 | fc;0xc | cc (3 bits); fc (2 bits) |
| 103 | cvt.d.s | cvt.d.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0x21 | |
| 104 | cvt.d.w | cvt.d.w fd, fs | 0x11 | 0x14 | 0 | fs | fd | 0x21 | |
| 105 | cvt.s.d | cvt.s.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0x20 | |
| 106 | cvt.s.w | cvt.s.w fd, fs | 0x11 | 0x14 | 0 | fs | fd | 0x20 | |
| 107 | cvt.w.d | cvt.w.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0x24 | |
| 108 | cvt.w.s | cvt.w.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0x24 | |
| 109 | div.d | div.d fd, fs, ft | 0x11 | 0x11 | ft | fs | fd | 3 | |
| 110 | div.s | div.s fd, fs, ft | 0x11 | 0x10 | ft | fs | fd | 3 | |
| 111 | floor.w.d | floor.w.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0xf | |
| 112 | floor.w.s | floor.w.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0xf | |
| 113 | mov.d | mov.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 6 | |
| 114 | mov.s | mov.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 6 | |
| 115 | movf.d | movf.d fd, fs, cc | 0x11 | 0x11 | cc;0 | fs | fd | 0x11 | cc (3 bits) |
| 116 | movf.s | movf.s fd, fs, cc | 0x11 | 0x10 | cc;0 | fs | fd | 0x11 | cc (3 bits) |
| 117 | movt.d | movt.d fd, fs, cc | 0x11 | 0x11 | cc;1 | fs | fd | 0x11 | |
| 118 | movt.s | movt.s fd, fs, cc | 0x11 | 0x10 | cc;1 | fs | fd | 0x11 | |
| 119 | movn.d | movn.d fd, fs, rt | 0x11 | 0x11 | rt | fs | fd | 0x13 | |
| 120 | movn.s | movn.s fd, fs, rt | 0x11 | 0x10 | rt | fs | fd | 0x13 | |
| 121 | movnzd | movnzd fd, fs, rt | 0x11 | 0x11 | rt | fs | fd | 0x12 | |
| 122 | movz.s | movz.s fd, fs, rt | 0x11 | 0x10 | rt | fs | fd | 0x12 | |
| 123 | mul.d | mul.d fd, fs, ft | 0x11 | 0x11 | ft | fs | fd | 2 | |
| 124 | mul.s | mul.s fd, fs, ft | 0x11 | 0x10 | ft | fs | fd | 2 | |
| 125 | neg.d | neg.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 7 | |
| 126 | neg.s | neg.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 7 | |
| 127 | round.w.d | round.w.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0xc | |
| 128 | round.w.s | round.w.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0xc | |
| 129 | sqrt.d | sqrt.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 4 | |
| 130 | sqrt.s | sqrt.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 4 | |
| 131 | sub.d | sub.d fd, fs, ft | 0x11 | 0x11 | ft | fs | fd | 1 | |
| 132 | sub.s | sub.s fd, fs, ft | 0x11 | 0x10 | ft | fs | fd | 1 | |
| 133 | trunc.w.d | trunc.w.d fd, fs | 0x11 | 0x11 | 0 | fs | fd | 0xd | |
| 134 | trunc.w.s | trunc.w.s fd, fs | 0x11 | 0x10 | 0 | fs | fd | 0xd | |
| 135 | eret | eret | 0x10 | 0x10 | 0 | 0 | 0 | 0x18 | |
| 136 | syscall | syscall | 0 | 0 | 0 | 0 | 0 | 0xc | |
| 137 | break | break code | 0 | code | | | | 0xd | |
| 138 | nop | nop | 0 | 0 | 0 | 0 | 0 | 0 | |