

				sub	sub			d_a	d_a	rea	rea							t_w	sp	hi	lo					cp0	
	op	fun	func	nc_pos	sub_pos	imm_pos	imm_extend	buf_f	buf_f	n_buf	n_buf	alu_op	operand_0	operand_1	wri	wri	mem	mem	write	sp	hi	lo	BRANCH	BRANCH	IS_L	cp0_rea	ad
		os						f	f	ff	ff				en	r	en	en	mem	en	en	en	EN	PC	OAD	d	en
NOP	00001							rx	ry	1	1	X	X	X	0	X	0	X	X	0	0	X	X	0	X	0	X
B	00010					10:0	sign	rx	ry	0	0	X	X	X	0	X	0	X	X	0	0	X	X	1	b_pc	0	X
BEQZ	00100					7:0	sign	rx	ry	1	0	X	X	X	0	X	0	X	X	0	0	X	X	reg 0 eq 0	cb_pc	0	X
BNEZ	00101					7:0	sign	rx	ry	1	0	X	X	X	0	X	0	X	X	0	0	X	X	not reg 0 eq 0	cb_pc	0	X
SLL	00110	1:0	00			4:2	shift	rx	ry	0	1	alu_sll	READ_DATA_1	shamt_buff	1	rx	0	X	X	0	0	X	X	0	X	0	X
SRA	00110	1:0	11			4:2	shift	rx	ry	0	1	alu_sra	READ_DATA_1	shamt_buff	1	rx	0	X	X	0	0	X	X	0	X	0	X
ADDIU3	01000					3:0	sign	rx	ry	1	0	alu_addu	READ_DATA_0	imm4se	1	ry	0	X	X	0	0	X	X	0	X	0	X
ADDIU	01001					7:0	sign	rx	ry	1	0	alu_addu	READ_DATA_0	imm8se	1	rx	0	X	X	0	0	X	X	0	X	0	X
ADDSP	01100	10:8	011			7:0	sign	rx	ry	0	0	alu_addu	SP	imm8se	0	X	0	X	X	0	1	X	X	0	X	0	X
BTEQZ	01100	10:8	000			7:0	sign	rx	ry	0	0	X	X	X	0	X	0	X	X	0	0	X	X	not T	cb_pc	0	X
MTSP	01100	10:8	100					rx	ry	0	1	alu_or	READ_DATA_1	zero_word	0	X	0	X	X	0	1	X	X	0	X	0	X
LI	01101					7:0	zero	rx	ry	0	0	alu_or	zero_word	imm8ze	1	rx	0	X	X	0	0	X	X	0	X	0	X
CMPI	01110					7:0	sign	rx	ry	1	0	alu_cmp	READ_DATA_0	imm8se	1	X	0	X	X	0	0	X	X	0	X	0	X
MOVE	01111							rx	ry	0	1	alu_or	READ_DATA_1	zero_word	1	rx	0	X	X	0	0	X	X	0	X	0	X
LW_SP	10010					7:0	sign	rx	ry	0	0	alu_addu	SP	imm8se	1	rx	1	0	X	0	0	X	X	0	X	1	X
LW	10011					4:0	sign	rx	ry	1	0	alu_addu	READ_DATA_0	imm5se	1	ry	1	0	X	0	0	X	X	0	X	1	X
SW_SP	11010					7:0	sign	rx	ry	1	0	alu_addu	SP	imm8se	0	X	1	1	READ_DATA_0	0	0	X	X	0	X	0	X
SW	11011					4:0	sign	rx	ry	1	1	alu_addu	READ_DATA_0	imm5se	0	X	1	1	READ_DATA_1	0	0	X	X	0	X	0	X
ADDU	11100	1:0	01					rx	ry	1	1	alu_addu	READ_DATA_0	READ_DATA_1	1	rz	0	X	X	0	0	X	X	0	X	0	X
SUBU	11100	1:0	11					rx	ry	1	1	alu_subu	READ_DATA_0	READ_DATA_1	1	rz	0	X	X	0	0	X	X	0	X	0	X
AND	11101	4:0	01100					rx	ry	1	1	alu_and	READ_DATA_0	READ_DATA_1	1	rx	0	X	X	0	0	X	X	0	X	0	X
OR	11101	4:0	01101					rx	ry	1	1	alu_or	READ_DATA_0	READ_DATA_1	1	rx	0	X	X	0	0	X	X	0	X	0	X
NOT	11101	4:0	01111					rx	ry	0	1	alu_nor	READ_DATA_1	zero_word	1	rx	0	X	X	0	0	X	X	0	X	0	X
CMP	11101	4:0	01010					rx	ry	1	1	alu_cmp	READ_DATA_0	READ_DATA_1	0	X	0	X	X	1	0	X	X	0	X	0	X
JR	11101	4:0	00000	7:5	000			rx	ry	1	0	X	X	X	0	X	0	X	X	0	0	X	X	1	READ_DATA_0	0	X
MFPC	11101	4:0	00000	7:5	010			rx	ry	0	0	alu_or	PC	zero_word	1	rx	0	X	X	0	0	X	X	0	X	0	X
SLLV	11101	4:0	00100					rx	ry	1	1	alu_sll	READ_DATA_1	READ_DATA_0	1	ry	0	X	X	0	0	X	X	0	X	0	X
SRAV	11101	4:0	00111					rx	ry	1	1	alu_sra	READ_DATA_1	READ_DATA_0	1	ry	0	X	X	0	0	X	X	0	X	0	X
MTIH	11110	4:0	00001					rx	ry	1	1	X	X	X	0	X	0	X	X	0	0	X	X	0	X	0	0
MFIH	11110	4:0	00000					rx	ry	1	1	X	X	X	0	X	0	X	X	0	0	X	X	0	X	0	0
MFCO	11110	4:0	00000					rx	ry	1	0	X	X	X	0	X	0	X	X	0	0	X	X	0	X	0	imm 7:5
MTCO	11110	4:0	00001					rx	ry	1	0	X	X	X	0	X	0	X	X	0	0	X	X	0	X	0	imm 7:5